

My life as an entrepreneur

Profit by loss

My life as an entrepreneur

Part 3: systems of innovation

Vanenburg, 21st century

Jan Baan

The logo for Vanenburg, featuring a red dot above the letter 'v' in the word 'vanenburg'.

Vanenburg Group B.V.

1st edition

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To
My dear wife Rinie

and

Our beloved children
Gert Jan
Arianne
Jan Peter (in memory)
Paul
Marieke
Jan Willem
Ardjan
Bernhard

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Preface part III:

Systems of innovation in the 21st century

This third technology wave with the systems of innovation is much more about the enterprise in the supply chain, where the products have turned into services. The productivity of the knowledge workers in a supply chain can ensure a doubling of the EBITDA in the future. It will create a much better multiple revenue/market cap and provide manufacturing companies, who now control their entire data flow, a much stronger financial position.

The new gold of tomorrow is hidden in the data of the (still) decoupled back-end systems, which we will now unlock with 'systems of innovation' and innovative microservices supported by machine learning. I explain this more in detail in chapter 10 of part 2, 'the digital enterprise.' Here we want to guide the business community on the journey to Industry 4.0. You can see here that our core experiences (at the time of ERP in Baan Company and then the integration of the business processes in Cordys) still serve us very well in integrating and renewing legacy ERP for the Digital enterprise.

View analyst ranking leading companies in two technology waves

Baan Company was ranked as a leader in the systems of record players list at the end of the 20th century. My second company, Cordys, became a leader in the systems of differentiation wave at the beginning of the 21st century. In the third wave: systems of innovation, we see most players moving to a low-code platform.

Forrester's ranking for low-code development for Professional Developers in Q2, 2021 mentioned Mendix and OutSystems as leaders, even above Microsoft, Salesforce, Pegasystems, and Appian, which were ranked as competitors of Cordys at the beginning of this century as systems of differentiation. Due to the popularity of this new wave of low-code companies, we see growth to a much higher market cap. Recently Mendix and OutSystems became unicorns, with a value of more than ten times their annual revenue. Before OpenText acquired Cordys, we, as the Vanenburg Group, took over the initiative we started in the Cordys Process Factory. This was a break-away with new technology from the traditional BPM players.

In chapter 1, 'Again a new start', I explain the culture that we have transferred from my previous companies. Several impressive testimonies shared by various employees substantiate this during my farewell to Cordys. Culture is our basis for smart working, in which we encourage our people to make quick decisions and not to be afraid to make mistakes. Above all to fix our failures of quick decisions before our competitors can make them. The second part of my autobiography also describes the most difficult period out of

my life. Here the subtitle for my autobiography arose for me: Profit by loss. The consequences of these business losses have been quite drastic and have been difficult to process in our family.

But indeed, these drastic matters have given me a profit in my spiritual life. It brought me closer to my Creator. Moreover, it has shaped me deeper after the success of Baan Company as an ERP Company in the period of 'systems of record.'

I set a completely new course (by the end of the last century) by building cloud solutions and trust on the further breakthrough of the internet as the new carrier for business solutions and businesses. We were too early, but without these experiences, no matter how painful, I was absolutely not able to build what we have now realized in Vanenburg. With a large bag of money and without these experiences, but perhaps with a huge intellectual knowledge, however, I would have never been able to achieve our current milestone. I have always seen it as my core task to motivate others around me, especially through my entrepreneurial experiences. After all, talents, energy, and skills alone still doesn't mean much for a healthy business.

Great leaders develop great people. Great people build great organizations! The latter introduces Vanenburg, the third part of my autobiography. The profit part of the title now seems to be ahead of us, namely Vanenburg with our low code products, but you can read about this in detail in this part.

Around ten years ago, I created the base of a new startup by taking over more than 60 engineers in Coimbatore, India, from Cordys. We used the latest open-source technologies to propel low-code systems with big data and machine learning to new levels. In addition to this, we established a close relationship with the Google Cloud platform.

As a respected Google Cloud partner, we have successfully delivered solutions to companies such as leading tier-one automotive manufacturer Valeo, with over 110.000 employees, and Solvay, one of the first Google customers in Europe.

In those companies, we play a critical role as their core IT supplier. Over the last years, we have invested several million in product development, leveraging our experiences of more than 40 years as IT entrepreneur. Many of the key Baan and Cordys engineers are participating in this process. In 2019 Vanenburg moved from startup to scale-up with a positive EBITDA.

It is not my intention to turn this into a hero story, but more of a textbook for the business, in which I have learned from very personal, sometimes deeply painful experiences. In



retrospect, these experiences have also protected me from the sometimes narcissistic traits lurking in every entrepreneur. The scars have become instructional trophies. Every person is unique and does things in his or her own way. So, I hope the reader will not be annoyed if my approach in handling things is different from theirs.

I wish everyone a lot of reading pleasure, but above all I hope you will feel energized with new insights to collaboratively conduct business in this dynamic world.

Thanks to the support of Google, we see fast growth in this attractive new market for significant IT improvements with proven solutions. Such as the ability to replace Microsoft project with our Google Cloud platform-based solution.

At Valeo, our robust project Management Planning (PMP) solution facilitates 20.000+ users. They are closely connected to one of their SAP back-end ERP systems instances, which over 35.000 employees use. It saves Valeo massive amounts in license costs that can be used for other projects.

In 2019 our leadership team participated in the 'Crossing the chasm' program for guiding startup companies in the scale-up phase. With today's proven products and our experienced team, we feel positioned with a strong promise for our next growth phase. Still today, I am with my family the only shareholder who took all the responsibilities for financing our IP components.

Hindsight October 1, 2022

I also write in this part three how I experience my personal profit, especially in light of a story of the Bible in Hebrews chapter 12, which teaches us that enduring hardship and discipline is not meant for us to despair, but to trust God to pull us towards and benefit from His will and covenant. In that context I like to reference to what we as a family have experienced and how we bond together and continue to grow.

Gert Jan, our oldest son and the father of my grandson Jan Baan, is a pastor with 25 years of experience in pastoral care. In 2021 he obtained his Ph.D. at the Theological University of Apeldoorn, on the three earliest Easter cantatas by the great Johann Sebastian Bach. Max Reger has said that 'Bach ist anfang und ende aller Music'. All music starts and ends at Bach. According to experts, Bach has been the greatest musician who ever lived on earth. His theological musical analysis is titled: 'Der Heiland Lebt.' Bach was mathematically enormously gifted, and these talents have been a strong basis for his music.

Bach always closed his spiritual compositions with SDG (Soli Deo Gloria). Bach also worked with enormous contradictions in his music. With the interpretation of Matthäus Passion, when the Savior dies on the cross, you would expect that this ends in sadness. However, unexpectedly sweet and cheerful tones are coming through. At the end of the composition, by referring to the impressive word: '*Tetelestai*,' meaning: 'It is finished,' he refers to the sacrifice of Jesus, which gets its effect in the resurrection. So here too you find: 'Profit due to loss.'

That is also what I have experienced, especially in the most difficult circumstances of my life. Sometimes this has given me comfort in deep sorrow. Then I often think about my second son Jan Peter's passing in Nigeria, now almost 20 years ago. As a missionary with a calling, he went to a simple village with his family to be of service. While that was his belief and decision, for us it became a difficult to accept fact that he was murdered there.

Sometimes it remains difficult to process this deep blow, let alone to understand it, but luckily the love has remained. At times, my wife Rinie and I find comfort and strength when we realize that Jan Peter's God and Father took our son home. We can also particularly notice God's care for his wife Gonda and their four children.

More about this heartbreaking experience is written in part two, chapter 1.



Regarding my family, my wife and I are allowed to enjoy the bond with our children, and (great-) grandchildren. Three of our sons, Paul, Ardjan en Bernhard, replaced my position in the business and together are much stronger than I have ever been. My role with them is as a mentor and advisor to support them. I feel they are happy with my involvement, and it is nice to take some work out of their hands as their pre-sales consultant when possible. They are not interested in sharing their daily managerial activities with me. Given my determination to update my autobiography in phases over the last three years, I hope that the many hours spend brings some meaningful insights and experiences that will be useful for them in their path ahead. At the same time, it will be a nice historical reference book for the rest of the family.

It is pretty common to see how many leading family businesses are involved in father / son conflicts, which have arisen between the children in the operations and a dominant father at the helm and different interests from the other non-active family members. What a daily privilege is it for me to still have an influential role in our family business, by which I feel happy and grateful that I can still play a significant role in this interesting company without interfering too much with the operations.

We as a family have found a good balance, and it is a daily privilege for me that I can still play an active and significant role in harmony with the boys that run the business. By agreeing that we have obligations to our whole family, which I see as my shareholders, and to whom we owe a balanced assessment of interests and wisdom, we can keep the peace in the family while working together on a strong future.

In this light, I close this preface, such as with the composer Johann Sebastian Bach, with SDG: Soli Deo Gloria, or: The triune God to receive all honor and glory!

1. Again a new start

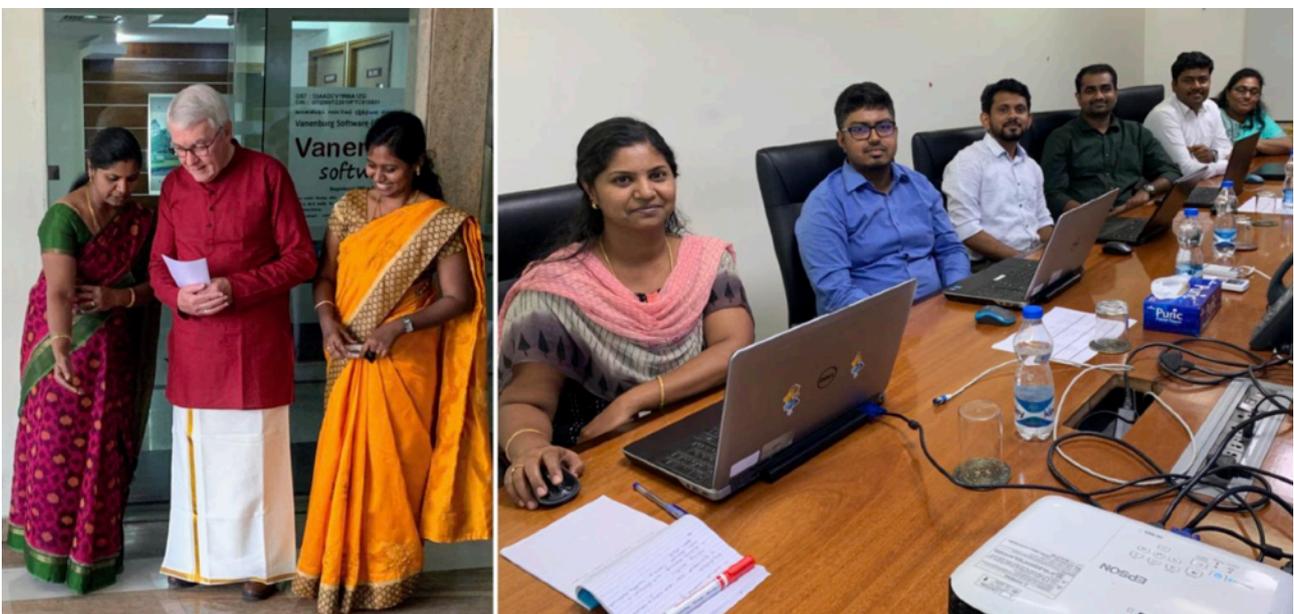
Is a company culture transferable?

These days, we hear a lot of talk about company culture. It seems a recurring topic that pops up, especially when companies experience difficulty in finding new employees. Suddenly, the company culture becomes a component of the recruiting process.

Culture, however, cannot be a buzzword or a flavor of the day. It is the most important ingredient in finding the organization of your choice, no matter where you are in your career. You can earn a living anywhere and find friends at most companies that may employ you. But finding a company culture that keeps you motivated, energized, and lets you be you is much harder to find.

Back in the '90s, when the Baan Company morphed into a multi-billion dollar global software company, many people credited the Baan culture as a critical component of its success. Still today, when you speak with former Baan employees, the Baan culture is often a topic of conversation. Employees shared stories with friends and family members who soon became interested in working for a company that nurtures people and fosters a growth mindset in a mutually respectful environment. Many of these employees enjoyed a time where everyone was encouraged, motivated, and rewarded.

Even today, many alumni from Baan Company and Cordys, as well as our Vanenburg employees are calling me: 'The driver behind the Baan culture'. From the early days of Baan Info systems in the mid-'80s, I took the position that I didn't know everything and surrounded myself with people who could do the things that I couldn't or didn't like to do. My motto was always: 'Better to ask for forgiveness than ask for permission,' and combined



with my enthusiasm, I believe this has given everyone the feeling they could accomplish anything they were tasked with while still being held accountable.

We implemented the 3-I's principle (Innovation, Initiative, and Integrity), another integral part of the company's DNA and Baan culture so many still remember. Many former Baan employees have built successful careers and brought the 3-I mindset to other organizations. Or, as Ramanathan Subramanian (former GM Baan Company) said so well in a note to Me:

“Company culture is often mentioned as an outcome of its business success. The greater the success in terms of revenues and profits, the higher the tendency to elevate its culture. Can the company culture survive the scrutiny of business success? Can it outlive the original organization and still exist in the minds and hearts of the people it nurtured? Can it be carried to other organizations and still be talked about with pride? Can it make an impact on an individual outside work? Can it rally around and self-organize itself into a network?”

Was our culture transferable to other organizations? Were other organizations able to create a mindset and energy similar to what was experienced in the Baan days?

Vinodh Kumar JK (Senior Vice President Product at Vanenburg) certainly has that experience:

“I had the good opportunity to join a ‘Jan Baan’ company for the third time (Baan Info, Cordys, Vanenburg), and I love every bit of it.”

Now, after more than 40 years of building successful organizations, I am still as enthusiastic and full of energy as before. We are building Vanenburg into the leading Google Cloud partner for low-code / no-code platforms, with team members looking forward to welcoming you. If you are looking for a company that encourages your creativity, gives you the space to grow and evolve with realistic targets and without a complex hierarchy, feel free to reach out and learn more. All we are looking for is your Initiative to be Innovative in an environment that encourages you to ask for forgiveness instead of permission, with Integrity.

It is my belief that at Vanenburg, we can do it again. I am convinced that we are well positioned to ‘crossing the chasm’. We have gained so much knowledge and perspective during the past 40 years as pioneers in translating the newest, cutting-edge IT concepts into actual improvements of business processes. And now we are at the dawn of a new, important era.

In part 2 of my autobiography, I wrote about the history of Cordys in the era of ‘systems of differentiation’. There, we focused on the optimization of what Porter describes as

‘operational excellence’, or what we call the end-to-end management of all inbound business processes. Here, all underlying legacy silos like ERP, CRM, PLM, Warehouse Management, Financials etc. have to work together harmoniously.

Unfortunately, this rarely succeeded with BPM and SOA toolsets. The technology stack of the IT systems was too complex, and the legacy silos of the 20th century were too unwieldy to integrate into a harmonious model.

Now however, we have entered the Web 3.0 era, where especially Google facilitates services and components that we could hardly envision in earlier days. They are connected with many, powerful, open-source components that enable us to not just realize the aforementioned harmonious models, but also manage the new era (the supply chain) with microservices and micro-apps.

This will be the focus of part 3, in what we call ‘systems of innovation’. Unfortunately, it will require an occasional technical deep-dive. This will no doubt be very interesting to the technology experts amongst us. Still, the technologically less adept readers should at least skim through these parts, as it is my personal experience that a basic knowledge and understanding of these modern technologies can be very beneficial when evaluating or adopting new disruptive concepts.

The focus in part 3 will be on the benefits we can achieve with Web 3.0 technology, in particular the improved control of workflow tasks with more in-depth and transparent insight into backend systems via a manageable harmonious model. Using the latest cybersecurity tools, these backend systems can now be embedded into a safe and secure environment.

As a result, we will be able to much better control the expected explosive growth of web service adoption while at the same time significantly reduce deployment costs. We will however also see that the most surprising windfall will be more than just cost control. Peter Drucker predicted this in 1995 with his vision of the 21st century knowledge worker, in which new internet techniques will help double knowledge workers’ productivity and effectiveness in performing their tasks.

With better data management, transaction costs will soon become practically free, and the data itself will be the new gold. Big data coupled with machine learning will provide us with rich insights. This will enable us to significantly improve our EBITDA, with even the more traditional industrial companies seeing a multiple of their market capitalization closer to that of digital natives.

That is why I think this part will be particularly important to business owners. In support of this goal, I am taking a vulnerable position in describing my past experiences, including several private pain points.

Disclaimer: under construction!

In the previous parts of my biography, hindsight, it is more easy to describe what we have built and how the complete technology stack turned out to be. Be aware that now we enter into the present, and a team of more than 150 Vanenburg 'modernizers', as we like to call them, is continuously making improvements to our technology stack in order to better serve our customers. Therefore, here we enter a 'under construction' or 'continuous improvement' phase. But let me share how this construction started.

Improve the productivity of the knowledge workers

Because today's modern knowledge worker is equipped with consumerized devices such as smartphones, they now offer a breakthrough for team collaboration where tasks are decoupled from the business processes of the enterprise. This means that traditionally driven transactional systems, such as the complex legacy ERP solutions, are increasingly declining in function due to their complexity. Typical enterprise data and compliance remain in function, but smart apps make it possible to communicate with our suppliers at all levels, such as with the customer of the customer. Semi-finished products can hence be offered via a marketplace, resulting in a significant reduction in our stocks and handling costs.

Uber and Airbnb services have hardly any transaction costs. Microservices apps manage all inter-supply chain transactions much more effectively. You could call it a new dimension of ERP (the material requirement calculation across the entire supply chain in a relative Marketplace). I call it supply chain resource planning. Gartner came with the new concept of beyond-ERP calling this (Enterprise Business Capabilities) EBC.

However, we are only talking about one side of the coin. Until now, when planning, we still had the limitation of only scheduling material transactions, and as a result, we gained an insight into the production tasks in the relevant factories. But here we are talking about networks based on identity and communications. In other words, we can gain insight into the tasks from the workflow transactions of the knowledge workers. When we think of 'Networks' such as LinkedIn or Facebook, we understand the possibility of gaining insight into the future capacity constraints in the workflow tasks of the knowledge workers. I now get insight into which tasks must be performed by the integrated supply chain teams at a given time and place and into the skills and availability (agenda) of my knowledge workers.

I call this collaborative task reengineering. The three circles in the picture below are connected. The data for marketplaces mainly come from the synchronization of the ERP data from (often legacy) backend systems. The workflow apps as modern microservices connect this data with the social data from the networks. In the past, our business objective was limited to Business Process reengineering (BPR), where we gained insight into the implementation of the business processes. Now with the clarity of the tasks to be performed within a time horizon, we have the option for collaborative task re-engineering) for the first time. Smart process apps now make it easy to track transactions and processes (just like with Uber). After we have registered, we no longer have to enter any transactions.

Connecting Gartner's Pace Layered application Strategy

I found the first breakthrough for ERP systems at Rootstock ERP, which is completely built on the Salesforce PaaS solution and where all functionality is united in a homogeneous platform. The functionality may not yet be comparable on all fronts to the complex legacy systems mentioned in this book but it is good enough as a transactional core system.

The more complex functionality is no longer compressed into a transactional system but is added as disconnected microservice apps in the 2nd and 3rd layers. In those more flexible layers, we have the big advantage that this often distinctive functionality can be built with the open-source techniques of today, while these functions easily be enriched with workflow-driven tasks. The latest rapid application development tools offer a huge acceleration of the development phase, while the semantics of these new functions are maintained with the underlying integration. Using the Salesforce PaaS platform with the built-up Rootstock cloud ERP system has a good starting point to replace the legacy ERP systems. As a cloud platform, Salesforce offers an integrated solution in which ERP and CRM, together with the Salesforce service cloud, seamlessly connect as 'one-instance.'

From the Salesforce appExchange (the marketplace of Salesforce), many other partners' solutions are available as one integrated system because they are all natively built on the same foundation.

A controlled migration process from legacy

The only way to evolve to Industry 4.0 solutions is by decoupling the old legacy systems. Some parts of the old legacy ERP systems should be kept and used because this rich functionality is hardly available in most new generation systems. However, it is recommended to first transfer the customizations within these complex systems to the BPM applications in the 2nd layer 'systems of differentiation.' As a result, the old legacy systems remain more manageable and, if necessary, can still be upgraded to a newer version. Incidentally, one must be careful not to sink further into the swamp of the dreaded

'vendor lock-in' situation. It is better to leave the financial and control-oriented processes in these transactional systems a little longer and rebuild the collaboration tasks in the chain with the latest technology. After all, this is where the best value proposition can be realized when using the possibilities of big data, IoT, and machine learning.

Thought must be given to whether the remaining legacy solutions are still worth an expensive maintenance contract or if it would be better to replace these outdated systems with a modern cloud solution? Cloud-based ERP solutions have a more affordable cost model, and the logic can be much better linked to various microservices apps. It is important to control the business processes' end-to-end,' in which all data from these systems is available as one version of the truth.

Over the last 30 years, most traditional players such as SAP, Oracle, Infor, Microsoft, Capgemini, Atos, and Accenture have made good money, implementing and maintaining time and money-consuming systems that are now outdated to a large extent. As architects of such systems ourselves, we knew that this would become a problem in the internet browser era.

Therefore, since the Baan days, we have worked hard on building solutions and processes to help our customers transition away from these old legacy systems. Our products and knowledge combined with new systems with a strategic market position offer affordable and flexible IT solutions to support smart manufacturing processes required in the cloud and knowledge worker era.

Examples include Salesforce, Workday, Google, Cisco, and Intel. Through our partnership with Atomiton, an interesting startup in Silicon Valley, we can connect these technology platforms to smart process apps for the knowledge worker in the world of tomorrow. Atomiton can connect the world of 'things' to business applications with its Internet of Things platform. This unique platform (which is also used by Cisco in the 'smart cities' project) connects these two worlds.

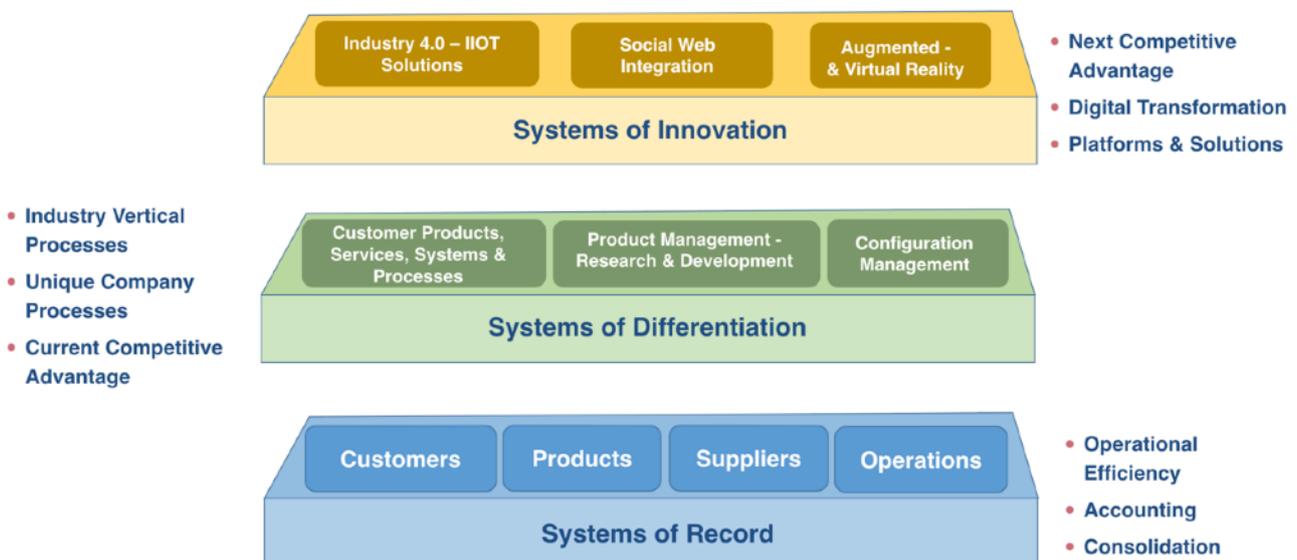
Connecting the dots in the browser

At the beginning of my career, I sat behind a machine to record the data in punch cards. At that time, I had no idea what this could mean. Of course, I saw that it was possible to automate the invoicing, which was time-saving and an effective improvement compared to the traditional bookkeeping system. Then came the magnetic cards; I still see myself as the bookkeeper with many evenings of hard work for the administrators who wanted to check at year-end the ledger accounts. A stressful time as many bookkeepers can attest.

Automating the bookkeeping provided an important insight into the cash flow. With this, I calculated and projected various alternatives for a financial statement with the liquidity requirement. But everything was still based on an annual assumption. Then we got Oliver Wright's algorithms to get the production processes in the picture. We were able to translate all the results of an ERP run into better negotiation for the purchases, while we also quickly gained insight into the capacity required to execute this on time. This was really the logistical breakthrough for a few large companies in the eighties. Those who mastered the disciplines could produce a permanent balance sheet and a projected profit and loss account linked to this. The alignment of liquidity for the company became much more transparent. Still we had not heard of the Internet yet, let alone a browser.

Looking back at my 40th year of IT experience as a driver for innovative businesses, I remember a shift in the transactional systems (systems of record) that caused a breakthrough at the beginning of the information age. At the time, it was about improving the business processes for the enterprise through the automation of transactions. We were barely familiar with what a browser was, but once that came in place, we have worked tirelessly on improving products and processes, and now we see a huge improvement in the productivity of the individual knowledge worker, who works over the Internet with an ever-changing chessboard of peers in the supply chain.

Eliyahu Goldratt caused an uproar with his book 'The Goal' and gave us better insights in the complex logistics processes. In his book, Eliyahu Goldratt introduced the Theory of Constraints (ToC). 'Constraints management' was seen as important, and the new costing methods were given a lot of attention. Back in those days, it seemed attractive to convert free capacity into inventories to influence the results on the annual reports. You can hardly believe this today, but this was the time of the bookkeepers, which resulted in more (apparent) profits because the inventory value was increased with the cost price of the



production, and thus the unsold capacity provided at least a better balance position. They barely questioned whether this could also be sold. Everything seemed right on paper, and the accountants gave an unqualified stamp of approval, while many companies went bankrupt due to liquidity problems. The administrative systems determined the revenue and profit of the company.

In the nineties we started working with the customer to gain a better understanding of the pipeline. This knowledge came from the CRM systems introduced by Tom Siebel, which was quite a change at the time. Unfortunately, we could not integrate these expectation models from the CRM systems with the ERP systems' productivity. After that there was an increase in popularity of the Product Lifecycle Management (PLM) systems. Slowly we were able to control the lifespan of products from design systems, via the production in ERP, to customer service in CRM. So many isolated silos followed, and all without the existence of an internet browser.

Gartner's pace layered application strategy

The Pace Layered Strategy figure below is a strategic framework, which assists companies in making strategic decisions regarding successfully phasing out legacy solutions in combination with strengthening their IT architecture with modern, often cloud based, API rich solutions. Based upon our experience and reviewing several solutions, we have decided to choose Gartner's architectural approach in order to support companies with legacy packaged solutions, in order to mature and extend their IT architecture. When the switching cost of replacing big enterprise applications - such as ERP - is too high, a phased based approach based upon pace layered thinking is the right way to go. The Pace Layered application strategy is based upon five pillars:

1. A governance framework: the business case becomes better for IT decisions — higher business value at a lower cost, and risk.
2. Application life-cycle management: The application switching costs in relationship to the entire application lifecycle — identify, select, fund, build, deploy, operate, and sunset.
3. The application portfolio: Based upon the enterprise architecture in relationship to the functionality across a group of applications.
4. The application layers: The functionality which fits into a category which contains application functionality with similar characteristics requiring a similar governance approach. (Mainly caused by mergers and acquisitions.)
5. Evolving business requirements: The objective is to adapt the application portfolio driven by changing business needs for maximum business value.

The pace layered application strategy architecture recognizes three main business layers. The following strategic business layers are selected:

1. Systems of record. This layer represents the enterprise packaged solutions, which have their origin in the previous century. These typical enterprise solutions have been built in the ERP, PLM, CRM and the SCM domains.
2. Systems of differentiation. Within this layer, unique industry or company solutions are built. Some solutions have a modern architecture, some of the functionality has been built as a customization within the already present packaged solutions. These customizations often prevent the package solution from being upgraded to its latest versions.
3. Systems of innovation. This layer is, for the packaged solutions, meant to be the next and future competitive advantage a company is aiming to achieve. Especially the functionality which is needed to be successful in your digital transformation has to be established in this layer, by selecting a modern architecture, like MASA (see paragraph below), your transformation is doomed to fail.

Pace layered thinking, moving away from packaged solutions, is a more granular and future proof approach when creating and deploying new business functionality in a portfolio. Supported by the right architecture choice, based upon MASA, it gives an organization the possibility to achieve their future strategy. Think about IoT, social web, artificial intelligence, big data/analytics, augmented - and virtual reality, often all possible in combination with your present environment.

There are restrictions, however. If your ERP core is too old and modern solutions are not able to communicate with its inner API's, other scenarios have to be considered. Adopting Pace layer thinking will force an enterprise to categorize its applications by process or function rather than adjusting the more common domain packages as mentioned previously. As an example, sales order entry, collaborative demand planning, procurement and financials are often embedded in one packaged solution ERP, but in fact are separate application modules that may have their optimal position in one of the three layers of the pace-layered application strategy.

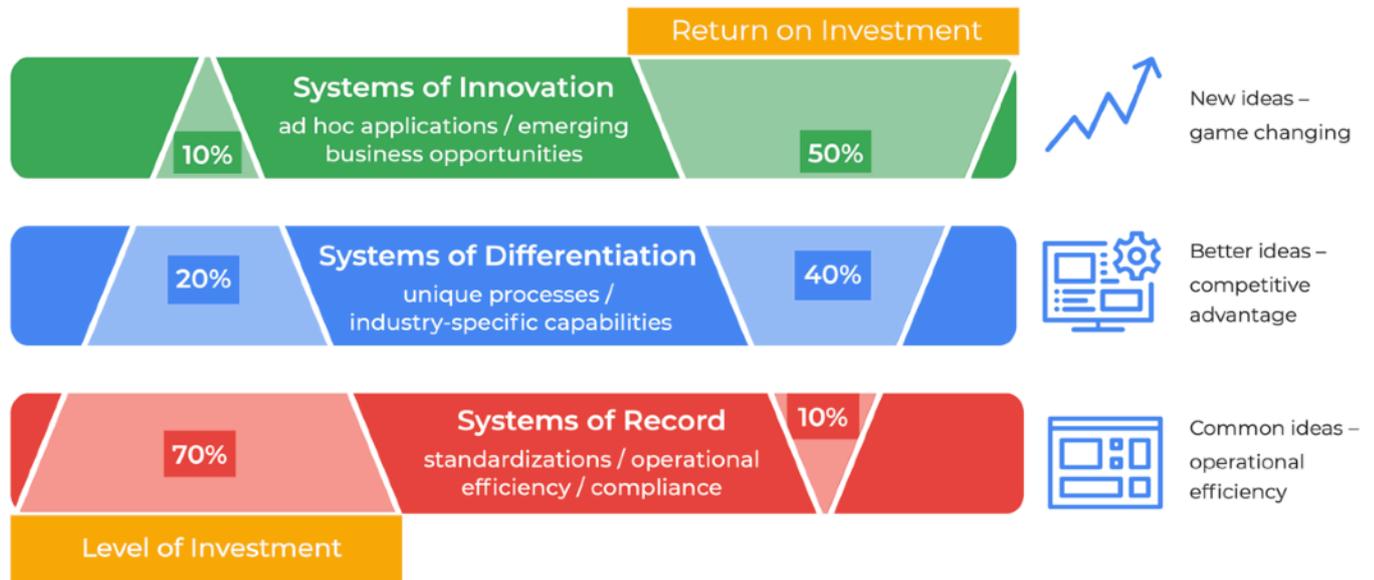
Mesh app and service architecture strategy

This architecture, as positioned by Gartner, has been discussed at many conferences and evaluated by all major analyst firms, such as IDC, Forrester and Ovum.

The packaged solutions, which had their origins in the 80's and 90's, were based on a rigid three-tier architecture. Many frameworks existed, but these frameworks were all based upon the fact that an application was running on one instance. For each instance, an operating system was either running on a physical or virtual server. Modern cloud-based architectures, however, are dispersed, often called 'elastic cloud'. In order to realize an elastic cloud solution, distributed services, e.g., a sales order entry or an IoT communication between the device and the service app, are required.

Pace-layered strategy and the road to innovation

The Speed of Change and the impact on the various Enterprise IT layers:



These services are running on a distributed environment, typically virtual machines, which can consist of many, often 10.000 or more, cloned virtual operating systems (containers). Service-to-service communication including service discovery, load balancing, fault tolerance, message routing, and even security is in place in order to support the distributed elastic cloud solution.

This connection layer is routing each service and keeps track of each container and its available capacity. The most modern cloud based solutions are based upon a Function as a Service (FaaS) technology, also called server-less computing, running on top of a container (E.g., AWS Lambda or Google Cloud Functions).

Also, other more modern, three-tier architecture frameworks, such as ASP.NET and Java-2 enterprise Edition (J2EE), which were predominant in the past decade are based upon web applications but are not capable of supporting a service-based architecture.

Legacy solutions based upon the three-tiered architecture are not designed to support these requirements. These solutions are rigid, based upon monolithic architectures and designed to support a browser. Another important conclusion is that this architecture and all of its business logic, which resides in the middle-tier, is not capable of orchestrating its existing functionality with other functionality needed in order to support future functional demand.

Gartner's MASA definition is the result of scientific research to which many universities and other - often independent - researchers have contributed. This open architecture, which

can be seen as a platform ecosystem, can be adopted by every company and runs on several platforms, such as Salesforce Lightning platform, Google's Cloud platform, Amazon Web Services (AWS), Microsoft's Azure platform, Oracle's cloud platform (OCP), IBM Cloud, etc. All digital giants who have expertise in their respective domains.

Vanenburg, a typical tech entrepreneur, assists industry incumbents in realizing their digital transformation. We have embraced Gartner's MASA architectural model and use a modern development environment, based upon digital giant solutions. Vanenburg Software's solutions can be deployed on Google, Salesforce and AWS, but can be deployed on other platforms as well. Vanenburg has its focus on specific industry models, such as wholesale, manufacturing and distribution.

We use a model driven architecture approach in our projects and use different subsets of the Object Management Group's (OMG) Unified Modeling Language (UML) standards. Object oriented design and software development, based on the class concept, is our mainstream approach we adhere to. We use mainly REST (Representational State Transfer) or SOAP (Simple Object Access Protocol) messaging services in combination with XML Schema and JSON (JavaScript Object Notation) as the communication service to communicate with MASA's API definition. As enterprise Service Bus (ESB), we recommend a mature ESB solution, such as Apache Kafka, MuleSoft, Talend or OpenText. As a frontend solution we use Collabrr and we have our own Open Java technology stack.

We have an outstanding experience in defining architectural roadmaps by redefining an existing enterprise architecture based upon a variety of legacy solutions into a modern MASA EA based solution.

Modern applications require an architectural model that mimics the dynamism of the digital mesh; a design that promotes autonomy and collaboration in problem solving and that natively supports an ever-expanding set of interface channels, services and data sources. A new architectural model has emerged that addresses these modern application requirements: The MASA concept is a modular architecture born in the present digital business age. MASA comprises multiple independent and purposeful modules that can be composed as needed to support multiple channels, users, roles and networks in delivering mature, functional rich, applications.

Microservices

James Lewis & Martin Fowler described in a nice article the definition of the new architectural term: microservices.

The term 'microservice architecture' has sprung up over the last few years to describe a particular way of designing software applications as suites of independently deployable

services. While there is no precise definition of this architectural style, there are certain common characteristics around organization around business capability, automated deployment, intelligence in the endpoints, and decentralized control of languages and data.

In short, the microservice architectural style is an approach to developing a single application as a suite of small services, each running in its own process and communicating with lightweight mechanisms, often an HTTP resource API. These services are built around business capabilities and independently deployable by fully automated deployment machinery. There is a bare minimum of centralized management of these services, which may be written in different programming languages and use different data storage technologies.

Componentization via services

For as long as we've been involved in the software industry, there's been a desire to build systems by plugging together components, much in the way we see things are made in the physical world. During the last couple of decades, we've seen considerable progress with large collections of common libraries that are part of most language platforms.

When talking about components we run into the difficult definition of what makes a component. Our definition is that a component is a unit of software that is independently replaceable and upgradeable.

Organized around business capabilities

When looking to split a large application into parts, management often focuses on the technology layer, leading to separate UI teams, server-side logic teams, and database teams. When teams are separated along these lines, even simple changes can lead to a cross-team project taking time and budgetary approval. A smart team will optimize around this and choose the lesser of two evils - just force the logic into whichever application they have access to.

Products not projects

Most application development efforts that we see use a project model: where the aim is to deliver some piece of software which is then considered to be completed. On completion the software is handed over to a maintenance organization and the project team that built it is disbanded.

Microservice proponents tend to avoid this model, preferring instead the notion that a team should own a product over its full lifetime. A common inspiration for this is Amazon's notion of 'you build, you run it' where a development team takes full responsibility for the software in production. This brings developers into day-to-day contact with how their

software behaves in production and increases contact with their users, as they have to take on at least some of the support burden.

The product mentality ties in with the linkage to business capabilities. Rather than looking at the software as a set of functionalities to be completed, there is an on-going relationship where the question is how software can assist its users to enhance the business capability. There's no reason why this same approach can't be taken with monolithic applications, but the smaller granularity of services can make it easier to create the personal relationships between service developers and their users.

Smart endpoints and dumb pipes

When building communication structures between different processes, we've seen many products and approaches that stress putting significant smarts into the communication mechanism itself. A good example of this is the Enterprise Service Bus (ESB), where ESB products often include sophisticated facilities for message routing, choreography, transformation, and applying business rules.

The microservice community favor an alternative approach: smart endpoints and dumb pipes. Applications built from microservices aim to be as decoupled and as cohesive as possible - they own their own domain logic and act more as filters in the classical Unix sense - receiving a request, applying logic as appropriate and producing a response.

A monolithic application will be built, tested and pushed through these environments quite happily. It turns out that once you have invested in automating the path to production for a monolith, then deploying more applications doesn't seem so scary anymore. Remember, one of the aims of continuous development is to make deployment boring, so whether it's one or three applications, as long as it's still boring it doesn't matter.

Another area where we see teams use extensive infrastructure automation is when managing microservices in production. In contrast to our assertion above that as long as deployment is boring there isn't that much difference between monoliths and microservices, the operational landscape for each can be strikingly different.

The turning point of the next big platform shift

The world of artificial intelligence and machine learning has been named by analysts as the most attractive market to invest in. The scale height exceeds that of the latest most attractive technological trends such as the internet & web, as well as mobile & cloud. Not only in volume but even more the explosive growth makes this market so attractive. It is the driver for the digitization of business that is expected to double the productivity of

the knowledge worker. Digital operating systems coupled with machine learning ensure a large-scale replacement of existing legacy systems.

We see the great value of linking the data in the legacy systems with Mash apps microservices. The data elements of these apps are stored in big data and it is now easy to link the sensors of IoT devices via an IoT platform. These mobile apps can now be enriched with machine learning tools.

What is edge computing work?

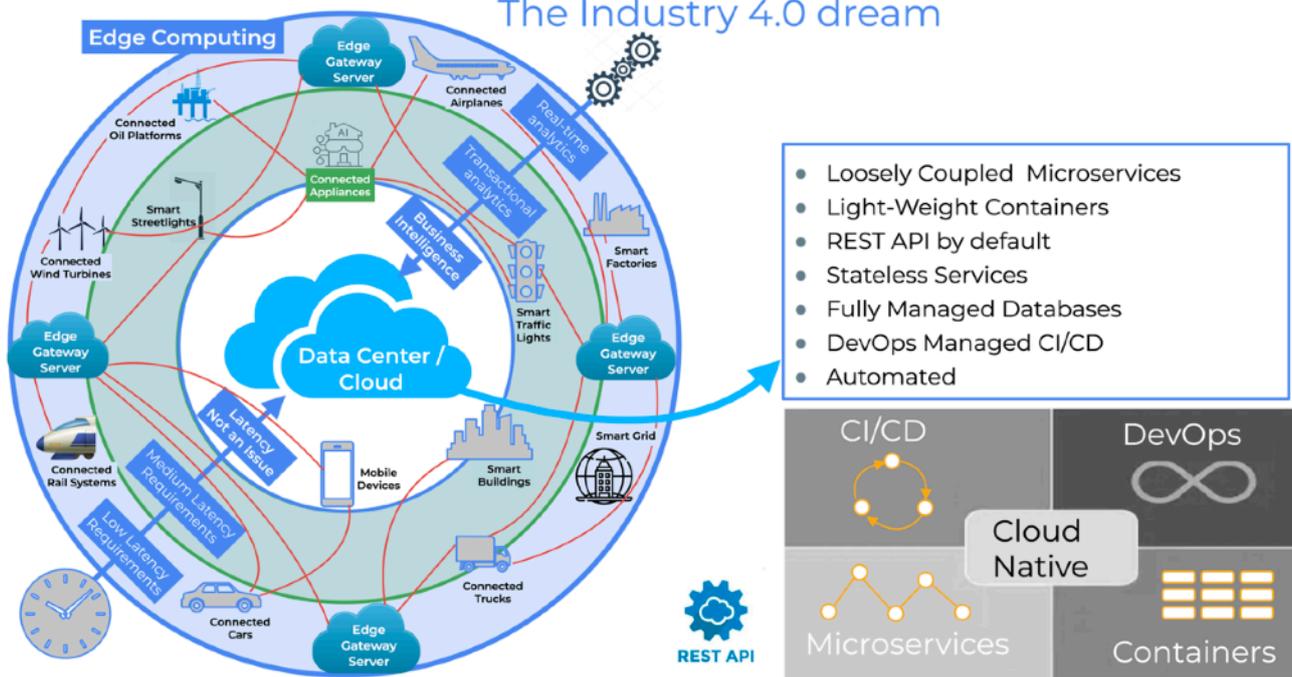
Edge computing is all a matter of location. In traditional enterprise computing, data is produced at a client endpoint, such as a user's computer. That data is moved across a WAN such as the internet, through the corporate LAN, where the data is stored and worked upon by an enterprise application. Results of that work are then conveyed back to the client endpoint. This remains a proven and time-tested approach to client-server computing for most typical business applications.

But the number of devices connected to the internet, and the volume of data being produced by those devices and used by businesses, is growing far too quickly for traditional data center infrastructures to accommodate. Gartner predicted that by 2025, 75% of enterprise-generated data will be created outside of centralized data centers. The prospect of moving so much data in situations that can often be time- or disruption- sensitive puts incredible strain on the global internet, which itself is often subject to congestion and disruption.

So, IT architects have shifted focus from the central data center to the logical edge of the infrastructure -- taking storage and computing resources from the data center and moving those resources to the point where the data is generated. The principle is straightforward: If you can't get the data closer to the data center, get the data center closer to the data. The concept of edge computing isn't new, and it is rooted in decades-old ideas of remote computing -- such as remote offices and branch offices -- where it was more reliable and efficient to place computing resources at the desired location rather than rely on a single central location.

Edge computing puts storage and servers where the data is, often requiring little more than a partial rack of gear to operate on the remote LAN to collect and process the data locally. In many cases, the computing gear is deployed in shielded or hardened enclosures to protect the gear from extremes of temperature, moisture and other environmental conditions. Processing often involves normalizing and analyzing the data stream to look for business intelligence, and only the results of the analysis are sent back to the principal data center.

The Industry 4.0 dream



The idea of business intelligence can vary dramatically. Some examples include retail environments where video surveillance of the showroom floor might be combined with actual sales data to determine the most desirable product configuration or consumer demand. Other examples involve predictive analytics that can guide equipment maintenance and repair before actual defects or failures occur. Still other examples are often aligned with utilities, such as water treatment or electricity generation, to ensure that equipment is functioning properly and to maintain the quality of output.

Edge computing now makes it possible to apply permanent mining to all data elements that can now be accessed via the cloud all over the world. In the example below about an offshore rig, we see that the time from design to production can take 5 to 10 years. But a commodity price fluctuation or a Hydrocarbon leak detection takes place in a few seconds or milliseconds. Time is gold but data is sand, because good things take years and bad things take seconds. Edge computing is computing as close as possible to the source of data and is computing with awareness. Thanks to the permanent learning of historical activities, we are now often able to predictably prevent catastrophic issues that occur in the very short-term.

Edge computing with data mining ensures that the workflow processes of the knowledge workers are greatly improved. PaaS platforms are now able to provide insight into all back-end processes as an end-to-end solution. Here the obsolete silos such as ERP have become redundant. The data is now available as information.

By linking various PaaS platforms in an Ecosystem, Mash-Apps can be built easily and quickly, providing the knowledge worker with knowledge. With the input of the permanent analysis of machine learning, the knowledge worker gets permanent notifications with suggestions to perform his task intelligently.

Mass customization

IT companies must increasingly reflect on the modern production methods of the automotive industry. Here we have seen that in the past the aim was to optimize generic components into one end product. So, moving from make-to-order, to make-to-stock. Henry Ford was the undisputed king with 'every color is possible as long as it is black'. The focus of Ford Motor company was on generic components, instead of customer specific features, because the cost price could be greatly reduced by producing large numbers and the quality could be increased by reusing components.

We have seen a similar development in the production of complex IT solutions, such as ERP. Due to their complexity, all components were generically produced and combined into a generic end product, whereby the enormous costs of the production process could be spread over many companies worldwide. To adjust this complex product somewhat to the needs of the individual user, huge amounts of parameters were introduced.

However, after the implementation drama of a complex product as ERP started the individual company started to share its wishes on top of this generic product through customization. Ultimately, this has become the saga of huge costs that must be paid annually for the deployment of this software. As mentioned earlier, Vinnie Mirchandani has calculated these annual costs for the SAP platform at US \$309 billion. We now see the focus in modern industry on mass customization. Just-In-Time and Lean methodologies have gained more control over reducing the lead time of the production process. Robotization and 3D printing make the process much more flexible and because the modern components are now equipped with many sensors, the end product can be deployed much more individually and flexibly through software applications. So, from mechanics and electronics there is still a need for many more generic mass components, but for the user through the software, the emphasis lies much more on the specific customized solution. A good example is the iPhone, where it is no longer primarily about functionality (the logic), but much more about solving the connectors to it, whereby a new product can be immediately used with it.

New generation of software development

Gartner's MASA architectural vision assumes that an ecosystem is powered by underlying platforms. Think of the PaaS platforms of Salesforce or WorkDay. A complex ERP module

can consist of legacy components, such as SAP, where bots now provide for the automatic capture of traditional screens in these legacy systems and a web API offers the possibility to build new functionality decoupled with smart apps. The data storage in a modern data warehouse now makes it possible to enrich these apps with machine learning. The starting point here should be to limit the legacy components to plain vanilla and to make absolutely no changes to the underlying engine ever again. These legacy components are constantly being replaced by (UI-driven) smart apps. We call this: 'daily sunset of legacy.'

As an example, the procurement module is now taking place outside of the enterprise in a collaborative network. Our Collabrr platform now makes it possible to collaborate with processes like 'procure-to-pay' and 'order-to-cash' in a supply chain network in this document flow. This can be a good replacement for the too expensive SAP Ariba solution, which is based on legacy components.

From generic modules into 'mass customized' components

Modern software factories have to adopt the principles of Industry 4.0. Like manufacturing companies who are dealing with modern production concepts of mass customization, which means that the end (OEM) manufacturer deals with many tiers of suppliers who are producing sub-assemblies, which are produced with different technology waves. But still the focus on the end product is simplified and looks flexible for the consumer (like a modern car), where the sometimes-obsolete components are hidden under the hood. The same attitude is needed from a modern software factory which is acting like a tech entrepreneur building a modern ecosystem for the digital enterprise. In the past our role as an ERP vendor was to deliver a generic (make-to-stock) enterprise system. But we have seen the complexity and lack of flexibility with these transaction-oriented systems. The key element and focus were on the business logic which was hidden in silos.

In the modern electronic industry, the focus is on the integration of the sensors and components and to make the life cycle as short as possible for adoption of new products. The focus is on 'build for purpose.' The keyword in manufacturing is smart decoupling. We need to learn from the modern electronics industry here and not focus primarily on logic, but rather on the representation of the user interface for the end user. UI driven requirement definition is needed as most of the subjectivity comes in the UI design resulting in changes and customer issues. Now we can categorize these requirement specs into basic types, i.e., input, system and output, which could force the customer to think exactly what he / she is expecting from the system and document them.

We as tech entrepreneurs must have the same approach by building smart ecosystems which are based on the consumerization of IT. Therefore, we need a smart input mechanism to adopt the business logic of the customer to generate immediately the

decoupled software components for the DAL's (Dynamic Access Layer). The same principles which made us different from ERP players of the nineties.

Advantages: gathering and prototyping - in a standard and rapid way

- The advantages of starting with the functional flow and an instant live app display is that the consultant can 'build the app' rapidly along with the customer.
- Since the customer is seeing the final screens, they can give needed features a lot faster, much more efficiently and with a lot of completeness.
- This will remove a lot of risk as when we prepare estimation, it would be based on a complete understanding of the app that is needed and also in full sync with the customer.
- When change requests are asked, it is very easy to refer to the screens designed at the start (and signed off before statement of work) and indicate which changes the customer is asking are change requests.

For further simplification, we can gather the requirements from the customer and fill the functional template sheet; when the template is being filled, in parallel, the application gets rapidly built automatically (just the UI and not the backend logic) and can be instantly seen by the customer and the consultant who is gathering the requirement. As the customer is instantly visualizing the application while discussing the functionality, the customer is able to share the necessary feedback on the requirements clearly and completely. This helps speed up requirements gathering, with better estimation of effort for development and reduces risks. In the next stage after the specification gathering, the app can be built by the developers following the Vanilla architecture.

Recently, an acquaintance of ours (Gerrit Jacob) had an experience that serves as a good example of 'instant prototyping'. He went to CARMAX, a used-car dealership to help a friend purchase a car. He noticed that they were using Salesforce as the CRM program and Rootstock for the logistic functions. The salesperson (knowledge worker) asked several questions about their preferences and typed it in a form. When asked if the program picks up their preferences and helps find a car his reply was 'no' it was just paperwork for records. The form was dead and pointless as the knowledge worker still had to manually find suitable cars. One hour was wasted on filling in the form. Our acquaintance saw a potential for a microservice on top of the Salesforce platform that could identify buyers preferences and use sensors to help identify the vehicle in the parking lot (which has 1,000s of vehicles) while filling the form. What is mentioned above is an interesting way for MASA and other microservices to work on top of existing solutions to help the knowledge worker.

The Importance of citizen development and citizen IT

- Business-led IT differs from shadow IT (Enterprise-led) in two vitally important ways.
- Business-led IT is open and transparent from start to finish, whereas shadow IT is hidden and under the radar for all or part of its life cycle.
- Business-led IT is much more collaborative effort between business and IT where appropriate standards and policies are applied.
- Gartner has seen business-led IT practices growing to 36% of the IT budget.
- Business units are also increasingly controlling their own application development efforts, of which citizen development will play a crucial role in the future of apps.
- Application leaders need to help define, guide, and optimize citizen development to maximize mutual benefits for business and IT.

Jason Wong VP
Analyst Gartner

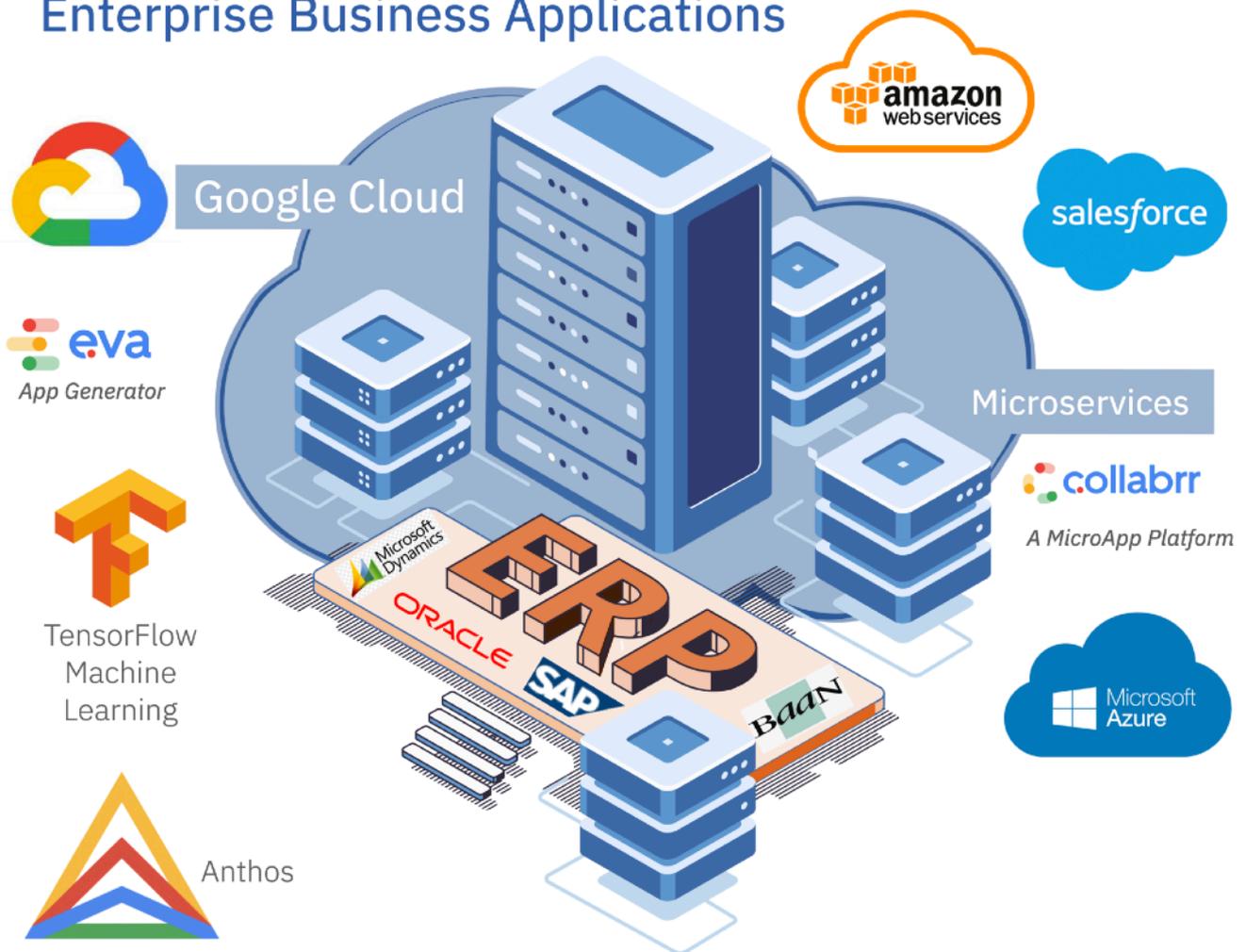
Microservice architecture

The beauty of microservices is that they are incredibly easy to create, deploy and share. New and existing applications can easily call numerous external and internal microservices. Making it easy for apps to communicate with each other organically has spawned a new generation of app creation. It is far easier for both enterprises and software vendors to accelerate these powerful applications. Criticasters correctly point out the microservices can easily propagate like mushrooms, fail to scale, and are hard to share and discover. This should be corralled by policy within an enterprise, rather than heavy-handed technology.

ERP customizations are essential but can be bulky and very expensive. In the recent past, we see that app development is going micro. In consumer technology, the interactive notifications we get on our phones are a good example of micro-apps. The entire life and death of the micro-app depends on the task it performs, and the data it presents to the user. Eva gives the ability to quickly generate and deploy containers packed with micro-apps with various functionalities at a low cost per functionality/micro-app. Changes and upgrades may also be quickly deployed, increasing the efficiency and productivity of the enterprise. The power of micro-apps is that the common functionality can be handled at the container level. This common functionality is what ties the micro-apps together. The differences (user interface, business logic) are represented by dynamic content that is downloaded to the container and executed.

By leveraging the power of micro-apps and the ability to reuse, Eva takes a considerable burden off developers. And thanks to the rapid prototyping capability, customers can accurately define the requirements and predict the development time. Finally, unlike many ERP giants, there is no vendor lock-in with the solutions of Vanenburg.

Enterprise Business Applications



The disruptive innovation model

In part two of my autobiography in chapter 8, about Vanenburg's skunk works, I described the 'disruptive innovation model' of Clayton Christensen, the famous Harvard Business School professor. At a vision at Google in a Talks at Google video at June 23, 2016 he explained for many Google executives that success is very hard to sustain.

Google is in a wonderful spot and almost never in the history of mankind has anybody seen to be so successful in much of the things that you're trying to do. And the reason why I worry about that is that success is very hard to sustain. And if you look across the sweep of business history, almost every company which at one point where widely regarded as unassailably successful, 10 or 20 years later, you find them in the middle of the pack or of the bottom of the heap. The scary thing about this is this that it's actually good management that causes successful companies to stumble. And so the solutions that you might think about are not solutions at all. The reason I came is just to share the despair that comes with.

Talks
at
Google



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The second one is that growth is actually a huge issue everywhere. Not just American companies, but Japanese and European companies are even more desperate for growth. In China, which has been on a roll for over the last 10 years, find themselves not able to growth there. And politicians are worried that we can't grow. And they have no idea where growth comes from, at the level of national economies. And if our nations are not prosperous, than companies find it hard to be prosperous.

In my third objective I want to talk to you about theories, about management. And the word 'theories' gets a bum wrap with managers, because the word 'theory' is associated with the word 'theoretical' which connotes impractical. But a theory is a statement of causality. It's a statement of what causes what and why and when you think about it in those term, you as technologists or managers are voracious consumers of theory. Because every time you take an action, it's predicated upon a belief that, if you do this, you'll get the result that you want. And every time you put a plan into place, it's predicated upon a set of theories, which tells you, if you do these things you'll be successful. But most of the people aren't even aware of the theories that they use. And many times, the theories that you use are destructive rather than productive.

So this is why I have spent much of my academic life trying to understand theories about management. So there's not one grand theory of management that solves all problems of managers. But there really are theories about different dimensions of a manager's job, which are quite helpful. And you'll see some of those, as I'll present them today, with a theory we have on the shelf called the theory of disruption. And I bet you that if we put that theory on like a set of lenses and examine this problem, we

might be able to understand what's going on. And so that's what I want to do is explain to you a set of problems for which good theories might help you. And I picked these ones because I think you probably are facing similar problems.

Toyota's disruptive entering America's market

Toyota entered America not by Lexus, but in 1960 with the little Corona, which was so much more affordable and accessible that the rebar of humanity, people we call college students, could own a car, making it affordable and in the backplane GM and Ford were making big cars for big people. Toyota coming in with the Corona and went to a Tercel, Camry, Avalon, 4-Runner Sequoia and then the Lexus. Going to new customers to get those buggers Design a Pinto for a Chevette and try to sell subcompacts into the marketplace.

Koreans are killing Toyota at the low-end. Toyota has still the privilege of competing against Mercedes ant the high-end. The Chinese manufacturers are coming next. We seriously don't need to worry about them. Reason this is so hard in disruptive innovation which is competing against non-consumption. Because the products are so costly and expansive that behind them there are no customers. They are potential customers, but if you make it affordable and accessible, looking at their world, it looks if they're doing just fine. Always you have to have a new company with new people who are looking into the other direction. Because you're competing against non-consumption by making it affordable and accessible.

That's why the growth comes in this dimension. Almost always we find examples from successfully companies taken advantage of this notion of disruption. Only few old leaders were able to do it again and not be killed in the old one. Setting up an independent business unit gave it able to create a different profit formula and develop different processes.

Can Google breakout of this business cycle?

Well there is no metric that any analyst has developed or is motivated to develop. Analysts like Moody's and S&P any indicator that they have is very short-term, about this year and next year. We don't have a metric that will allow an analyst to say, for this company, 10 years from now, they are going to be in great shape. Because these are the products that they have in the pipeline.

We have to develop our own matrix in the enterprise. Those who told us the matins and we should say: screw your guys and make the new metrics by which you will analyzed. Google is AI, so if you look at humanity as a job to be done before the Industrial

Revolution, you have been build, made on human muscles, that was a good way to do that.

Today for a job to be done we have to think and solve problems and human brains are good at that. But now AI is coming. It's cheaper, more scalable. What are the jobs human can do after the AI revolution.

We might think by analogy a driverless car is a technology which is a complicated problem. If we are targeting the California Freeway as the application for driverless car's, that's a very complicated application, for both legal and sophisticated technology. Maybe it will or won't happen.

We can't oversee if we change this the consequences for all enabled technologies to develop. And so our theory says that where you ought to look is a farm. And John Deere has wireless tractors going up and down. And the application is a very simple one and almost always when you try to make it affordable and accessible you start with very simple applications and little by little do that on competing with non-consumption is really critical.

AI what I worry is although we think that it will make us able to be better thinkers at lower costs, I worry that the applications of these are actually quit complicated. And that we think not about what are all of the other things that have to occur in order for all piece to make it?

And so it could be a big thing. But I'd bet that, in the process, we'll realize that we should go after simple applications and that typically focus us to hire more people. Because wether you call it an efficiency innovation or a disruptive innovation makes a big difference to the outcome.

Vanenburg's contribution of this business cycle

We as Vanenburg have today the key in our hands to integrate the legacy applications of the back-end, which are actually quite complicated to maintain. But with our 40+ years of innovative experience in complex business solutions, we integrate those systems already at the beginning of this century with the BPM and SOA tools in our Business Operating platform. But this was even complex, if we compare this with today's consumerized IaaS (Infrastructure-as-a-Service) tools from Google.

We as Vanenburg today are able to replace these logistic back-end systems easy over time, step by step, without risk, with these new micro services and lift and shift the legacy from vendors like SAP; Oracle; Infor, and Microsoft, with Google's IaaS driven tools and

optimized this cloud native platform with our 3A's (Application-as-a-Services), with full-scaled and serverless dynamic ML-driven apps. We are also able to reuse many business optimization cloud-native services, which we build the last years together with world-leading innovative customers like:

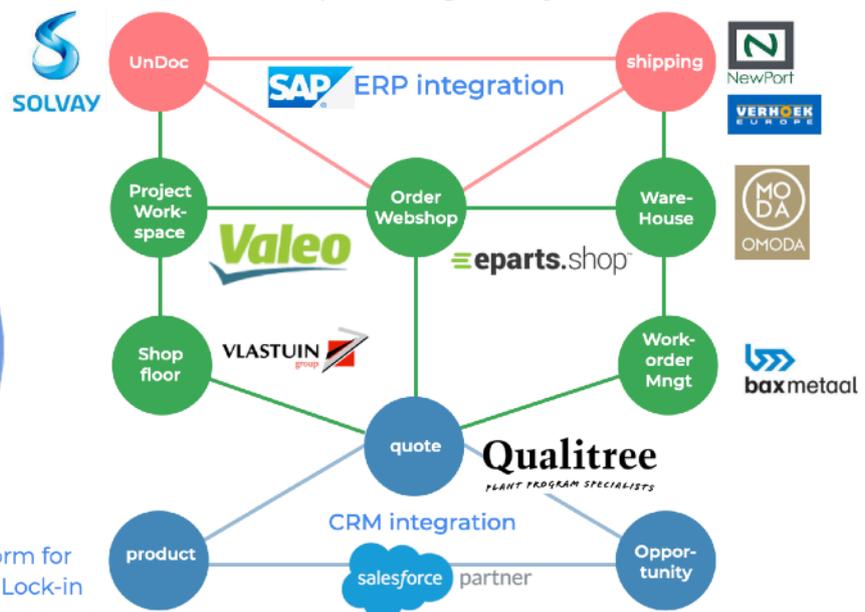
- and Solvay as early birds with Google IaaS, were we combined these low-code business solutions with a complete modern project workspace (Valeo), and a landing place to secure the many new microservices (Solvay).
- Valeo's claim handling solution managing one millions claims annually. Together with their project investment solution, controlling their billions of R&D spendings and their Incident mngt system, which is an advanced solution handling over 60.000 records with accident data about humans, machines and products. All the data of these three solutions are stored in big data and with help of BigQuery supporting the managers with machine learning initiatives and are all integrated components of our famous project Workspace solutions, which replaced by Valeo their legacy Microsoft project & SharePoint solution used by 25.000 R&D employees, which are fully integrated and connected with their 35.000 users SAP legacy solution.
- Vlastuin's shop floor solution to add specific project management functions for a complete industry subscription solution, combined with the subscription version from Valeo's project workspace
- Bax metaal for innovative work order management
- Omoda's warehouse management system to replace their AS-400 ERP system.
- Newport's modern 'door-to-door' transportation management system (TMS) combined with Verhoek's TMS solution.
- Part shop system for Order Webshop
- eVerbinding's fin-tech solution for eInvoicing

Collaborative Business Network for improving the job to be done

A marriage between Operational Technology and Information Technology that supports the dynamic workflow



Generated 'Lean Low-code' platform for JAVA developers, avoiding Vendor Lock-in



We are now able to combine more and more these projected components to fill in the complete logistic dynamic workflow components in a business ECO system, on top of traditional leading ERP solutions.

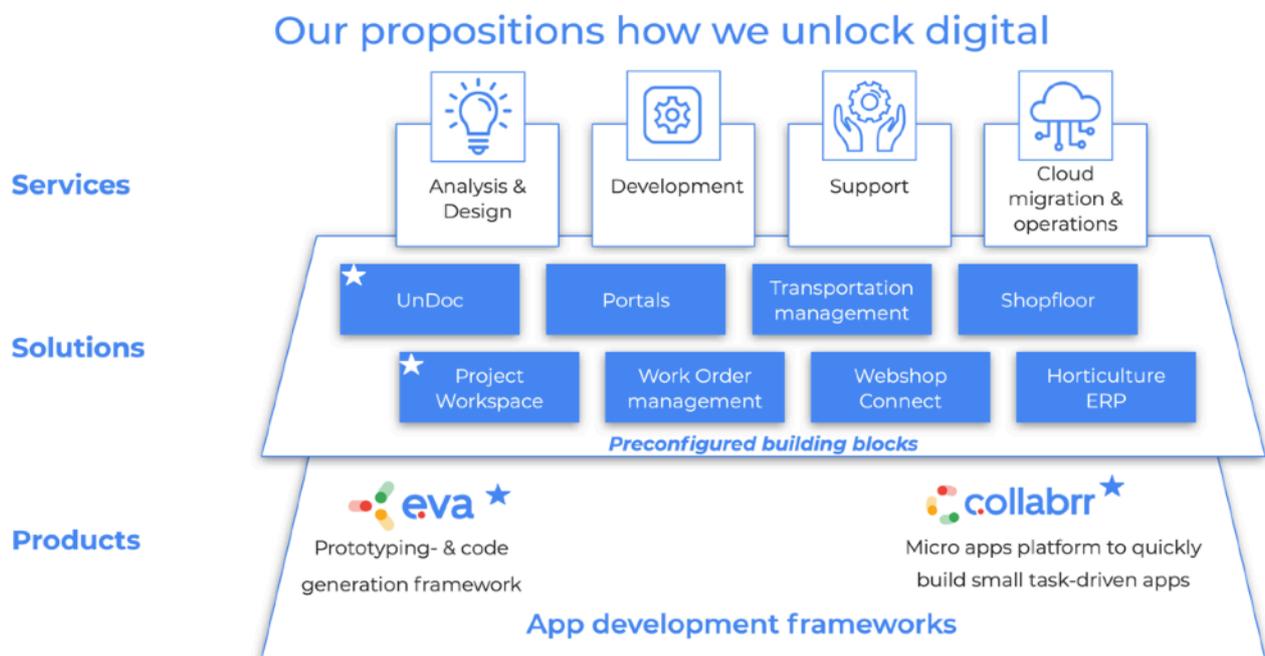
Those solutions are in line with the disruptive innovation concepts of Clayton Christensen and his vision by not keeping the customer in the driver seat for the new development, but especially *the job to be done*, which we already realized by our innovative customers.

Those new and disruptive solutions resulted already in extreme improvements of our customers dynamic workflow tasks, and resultant in high deployment cost reduction, most times north of 50-80% by using Google IaaS (*Infrastructure-as-a-Service*) components.

2. Vanenburg technology deep-dive

Always the same strategy

The Baan strategy was repeated when it came to new initiatives as we did with TopTier and WebEx. I kept them outside the core company. These initiatives were seen as a distraction to the existing activities of the company. We planned to build them as decoupled components that could be added later to our legacy products. Looking back, we see how this strategy now fits with Gartner's pace layered strategy. Cordys was established the same way and became the driver for the next generation of technologies beyond the Baan ERP platform. We always build new ideas with small teams.



Reflecting elements

The following elements are reflected in Vanenburg's innovative solutions:

1. Systems of record such as ERP and CRM applications.
 - After all, new applications are worthless if they are not linked to the enterprise data already in systems.
2. Process management solutions that can support the unique business process.
3. Smart process apps as dynamic applications that can be adapted quickly and flexibly. Documents can be called from all layers, whereby our product Collabrr can merge the logic from these different layers together. Collabrr is focused on merging information from different source systems, connecting the knowledge worker (within the organization or in the value chain), and quickly presenting this information in a dynamic app. The powerful capabilities of the microservice architecture now make it possible to

connect services from different smart process apps in a much simpler way, especially when compared to the integration of traditional BPM services.

For the core functionality of these smart process apps, Collabrr functions as an API manager within a centralized system. This makes it possible for Vanenburg to set up a cooperative model to bundle smart process apps from the many innovative startups and realize an integrated offering for larger companies and come to a specific business ecosystem.

Vanenburg has unique experience and knowledge of each of the three layers of PaaS that can function as a breakthrough catalyst of Industry 4.0, as expected by top analysts. From our Baan days, we know as no other the world of ERP and ‘systems of record’. With BPM, SOA, and PaaS player Cordys we have gained much experience in modernizing legacy systems and facilitating the unique business process in the enterprise.

With Vanenburg, we focus on the smart process apps with which internal processes and applications across the chain can be supported easily and quickly. We partner with Google when it comes to their powerful Google Cloud platform.

By applying all these technologies, new concepts such as ‘smart manufacturing,’ ‘smart healthcare,’ ‘smart governance,’ ‘smart banking,’ Vanenburg is well-positioned to support those new businesses with this new smart business platform.

In the digital enterprise, this platform connects the world of ‘internet of business

Personalized enterprise apps: a deep dive

	Intelligent microservices	Micro apps
Scope	Business logic	Specific task logic
Develop	Low code / full code / fast code	No code / low code
Focus	Intuitive by self learning intelligence	Designed for change / configuration by business
Deployment	Web application	Delivered inside a container app
Solution	Rapid application development	Micro apps platform



Robust, secure and scalable.



Fits easily in a flexible and elastic architecture and works seamlessly together.

processes’ with the ‘internet of things’ and the ‘internet of people.’

Collabrr, the citizen developer micro apps platform

We have matured the platform to a large extent. We have created many smart applications on top of the document-centric Collabrr platform. Over many years, we built the solutions while the base platform was growing in the elements of app development features in a model driven architecture. We realized that pivoting the platform was easy and that it allowed us to cater to new use cases, which was always how we had a 'low code platform' in our minds. We did the required realignment, and a micro apps platform was born from all the building blocks of the past years.

Collabrr platform now runs in docker containers and can be deployed on a Kubernetes cluster. It supports multiple clouds including Google and Amazon. Collabrr now can work with multiple NOSQL dbs like Hbase, MongoDB and Google Firestore. With this you have many options to choose from based on your enterprise preference.

App creation is much simplified. You can convert your MS excel sheet with data into a web application by just uploading the file. An application is created from the details we capture from the excel and data is also uploaded to the application. After this heavy lifting it becomes easy to make the necessary changes to your app using the interactive and simplified tools provided by the platform.

Collabrr is the successor of Cordys Process Factory, and is used by Valeo as MashApps to replace all their Lotus Notes apps.

In 2009, we took over the development team from Cordys and built our factory. This was the same team that built Baan ERP applications and the Cordys platform. Given the vast experience of this development team, we felt that it could be beneficial to start again from scratch, by building a citizen development platform based on big data, machine learning, and open source components, and a focus on the Google Cloud offering tools.

The business services from Collabrr's process on demand are designed as a 'self-contained application' acting as a service in an 'end-to-end' process which are simple to realize.

Apart from this the new version has a special focus providing integration with platforms which provides communication & collaboration as a service. It will be possible to initiate chat, video calls, organize meetings etc from workflow forms created for micro apps. This will be a great help in completing the enterprise tasks in an easy way.

Providing intelligence in your application using machine learning capabilities is the next step. For this platform has introduced a simple mechanism to define your machine learning models using Auto ML capabilities. This can be done by a citizen developer by specifying the attributes which need to be considered as input and the attribute you want to predict based on the historical training data. Based on this configuration the micro application will offer prediction service in the user interface. Simplifying the tools to offer intelligence to the app users will be expanded further.

NO-CODE VERSUS LOW CODE

Gartner	Citizen Developer (End-user)	Citizen Developer (Power-user)	Business-Led Pro Developer	Enterprise-Led Pro Developer
				
Improve the productivity of the knowledge workers	Task To Do	Collaborative Workflow 		Business Processes
	Workflow driven collaborative task zero-code	Simple applications, generating 80% Java Code	Generate the skeleton of the application	Business logic has to be written manually for maximum flexibility
Full-Time Developer	No	No	Yes	Yes
Preferred Tools	"No-code" (configuration)	Low-code	Low-code and Pro-code	Pro-code
Typical Apps	Individual and Workgroup	Workgroup	Departmental	Vanilla Enterprise

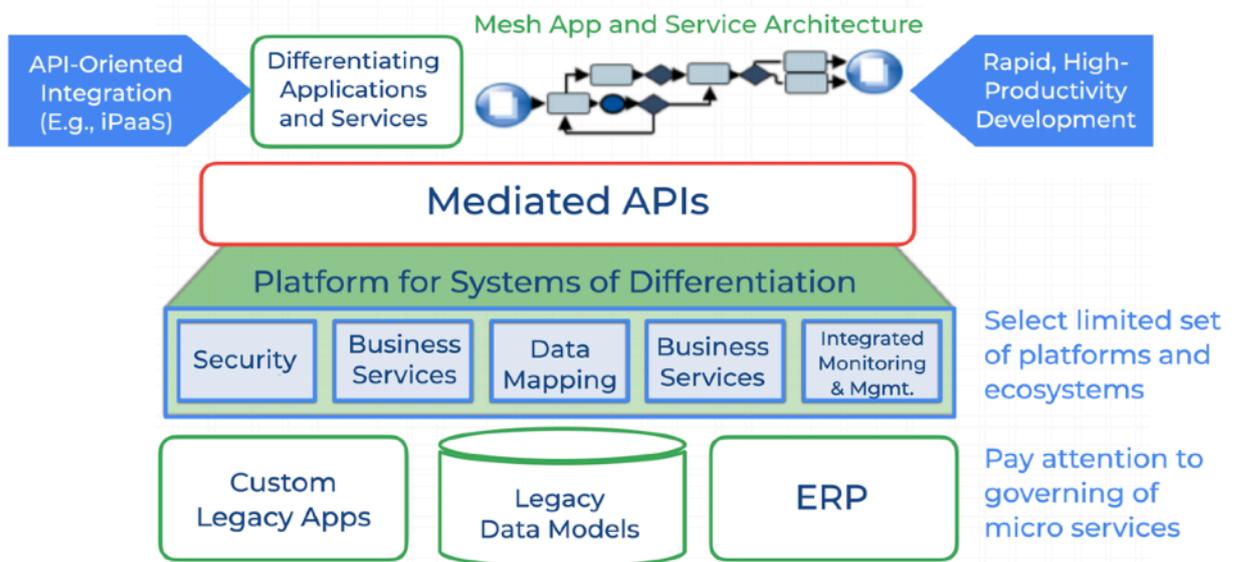
Benefit for citizen developers

- Small applications delivered via mobile or a website
- For users to perform a specific task or a functionality
- With an easy way to get in, perform the task, and get out.
- Simple, easy to learn, and easy to use.
- Provides an alternative way to complete a process from a single environment without signing into different systems (mobile applications, enterprise systems, etc.)
- The app can address a use case that can push data or finish a process in one of the backend enterprise systems using the exposed microservices
- Micro apps are easy to create, designed with a nice user experience for a specific user role/process/mobile environment.

Benefits for business

- An easy way to make your tasks as a mobile micro app.
- Minimize your app footprint.
- Manage, maintain and provision large mobile app infrastructure
- Streamline app functionality to users needs and maximize the use of your micro-apps
- Reduce task time by employee
- A more secure environment in the container app and apps can be provisioned and de-provisioned much more easily
- Create a central view of the app usage and adoption via a micro app server.

Mesh App and Service Architecture (2017 Gartner Inc.)



Benefits for developers

- Pre-build features eliminates, repeated development for every mobile app.
 - ✓ Provisioning app to end-users
 - ✓ Managing app releases
 - ✓ Monitoring device installations
 - ✓ Monitoring device apps
 - ✓ Authentication setup
 - ✓ Push notification configuration - Google Firebase
- Model-driven development with citizen developer (less code)
- Easy to develop, pack, deploy & provision

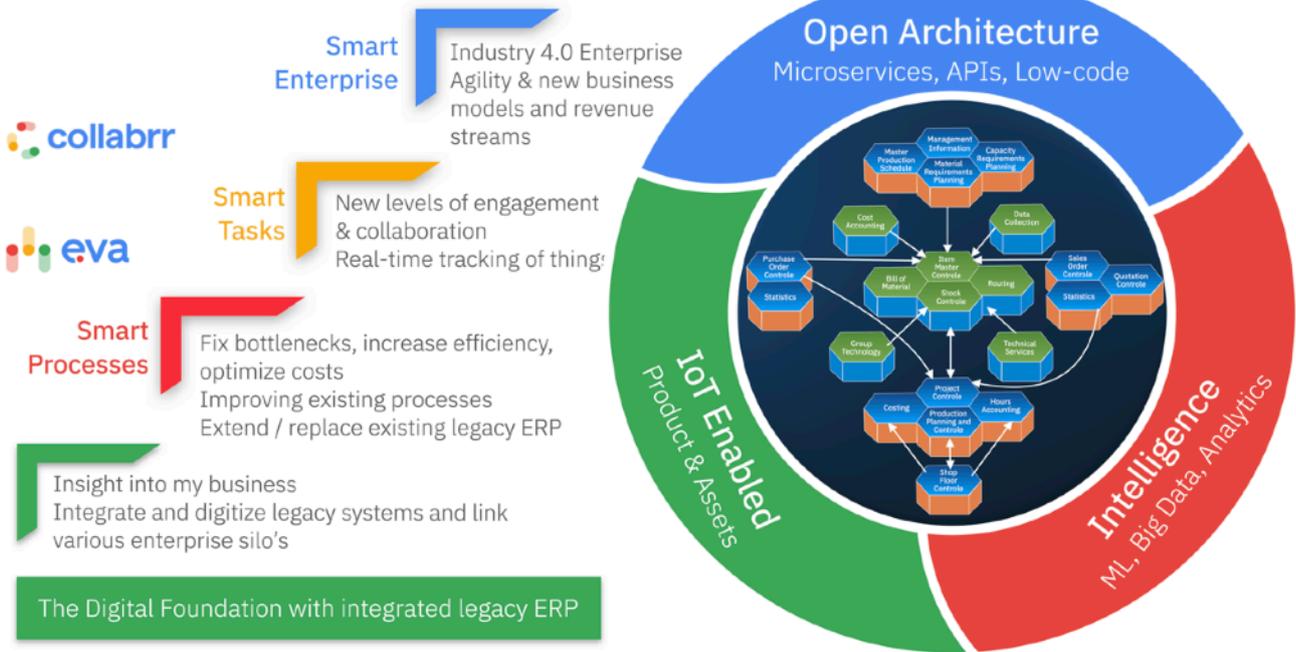
Connecting legacy ERP to Industry 4.0

Modernizing your enterprise IT, without locking yourself in, which means:

- Industry 4.0 enablement
- Digital transformation guidance
- Containing your core ERP and augmenting it with proven smart process and task apps
 - ✓ based on an open architecture and modern technologies avoiding lock-in;
 - ✓ enabling flexibility, agility with a seamless user experience;
 - ✓ replacing your core ERP legacy applications if and when you are ready.

Companies can outperform their capabilities if they embrace and deploy new IT concepts to their business. They need a tech-entrepreneur as a partner and guide to help them discover cutting-edge technology that can help companies become the differentiator and

The New Way: The Industry 4.0 Staircase Model



improve their business performance.

Today's technology allows us to build your tailor-made software solution on top of your legacy silo and bring these legacy systems back to the original vanilla version. This means much lower total cost of ownership by applying a rapid application development approach on open technology and avoiding vendor lock-in. Traveling the road to Industry 4.0 means your employees, suppliers, customers, and 'assets' become more productive with intuitive and future-proof software solutions.

How to reduce the number of ERP instances drastically?

Reducing ERP instances is currently the most crucial strategy for large companies. For example, Philips has mapped out all its systems (and in the past, there were hundreds of systems) around the areas: order-to-cash, idea-to-market, market-to-order, and enabling to identify redundancies and reduce the number of ERP instances.

Baan-IV ERP package supports the 'market-to-order' processes, where all 'order-to-cash' functions can be used as 'one-instance' with Salesforce. Product Lifecycle Management (PLM) solutions are facilitating the 'idea-to-market' processes. For the 'enabling' processes such as HR and Finance, Workday's PaaS solutions are becoming popular for larger enterprises, but ERP legacy systems can also be used in some areas.

In this example, we limit our systems (instances) to less than ten vendors. We can now move to the Digital enterprise step, i.e., 'systems of innovation'. Through proper process management of the legacy ERP solutions like Baan-IV in this case, we can now implement

disruptive innovations that focus primarily on the outbound enterprise, the supply chain. The strength of Baan-IV was in the customer order decoupling point.

Systems such as Microsoft Dynamics still can't handle the hybrid management of manufacturing companies. The limitation of Baan-IV was in multi-company, combined with services such as CRM, CPQ, and service solutions. Today we can use Salesforce for these services and the multi-company problems can be solved easily in the third layer with smart apps. Complex logistics processes such as 'as shipped' and 'as installed' or 'claim handling' and 'project management' are now much easier to decouple and build as smart apps, instead of complex custom solutions in the outdated software of the last century.

Consider also the broadening possibilities of CODP (Customer Order Decoupling Point). Through communication with IoT and the storage in big data, we increasingly require a dynamic CODP. A dynamic CODP enables us to gain insight into all material and semi-finished product dependencies, such as transport, location, and services. We are talking about constraint management as my late good friend Eliyahu Goldratt described in his famous book 'The Goal' in the 1990s.

Ultimately, we want to control the allocation of all orders with the consequences of production. What is not reserved could be offered through a marketplace every day. So the inventory and work in progress can still be drastically reduced with the new possibilities of smart workflow applications. Our Eva lean low-code platform controls the logic and data of these underlying legacy systems, allowing us to build new functionality with the modern microservices linked to big data containers that are connected to workflow processes. This approach helps us achieve a much more powerful architecture capable of performing collaborative tasks in a supply chain. In particular, we see that machine learning functions ensure that knowledge workers can control their tasks in a better way.

A new generation of Progressive Web Applications (PWAs) is now taking root on desktop computers and may soon make the jump to your smartphone, changing how you download apps — and where they come from — forever. We made great improvements with our investigation/solution on PWA for Eva. When the user prototypes the desktop screens for desktop, the mobile pages/app will be fully generated simultaneously. PWA for Eva has the following benefits:

- 'Single code base' for the web and mobile apps. The same code works for web and mobile and therefore, the development and maintenance costs are optimized.
- The app developers don't need to do anything additional for mobile apps - all apps are automatically mobile-based.

Steven Gauld, founding member, SAP MaxAttention sales team

I posted this story (reduce the number of ERP instances drastically) as a LinkedIn post in December 2019. My good friend and old colleague Steven Gauld reacted with this message:

Thinking through what I believe you are saying... using easily configured micro-applications as an overlay for a customer environment of mixed ERP solutions? Therefore, allowing the client to return to a generic base code version of their various ERP systems and manipulate data the way it is actually needed for business operations? If so... this seems to solve the 'forever' problem of good useful data locked within propriety legacy systems. Time and time again, we see that most businesses have the data they need but cannot present it in a form that is accessible and useable. Am I on the right track here?

My reaction to him:

You know it from our Baan time: Make the ERP- layer simpler. You're absolutely right. We have to bring the back-end solution back to a simpler and lower TCO deployable environment. This means that we have to reduce the functionality back to the minimum needed components and first reduce the number of database tables, especially those that are bespoke. Back to vanilla. And then, further, over time, replace that legacy with smart microservices. We call this process: Sunsetting, which means less legacy every day. Indeed the key architectural issue is to synchronize the data from the SQL tables into the none-SQL Big-Data world. It's easy to generate (low & none coding) microservices & micro-apps, by using new API layers like REST. Combined with machine learning will improve the productivity of the knowledge workers.

After my reaction, Steven sent me a very interesting testimonial about his experiences as an experienced support manager helping larger ERP customers understand the solution they purchased.

Steven worked with SAP for 11 years as a leader in the MaxAttention sales team. Max Attention sold Software & Service Experts (people) to help customers understand what they had purchased. He had the following to say about his experiences in the industry.

The dream

The simplification of business processes and systems was our decades' long dream! After 11 years deep in the trenches with SAP, I feel we remain further from the goal than ever before, more on this below.

In those 11 years, I did not witness any simplification of our customer's daily business grind. I witnessed an already dated and 'bloated' system becoming more complex and

challenging for my clients. SAP went on their buying spree, and every year we had a new 'flavor' that was the best thing ever! SAP sure is a master of Hype and Spin.

Application after application was added around the fringe of core ERP (i.e., around 40 companies acquired). For 11 years, I witnessed License Sales teams being pushed to sell the latest product and, in partnership with the System Integrators, deliver on a model of helping the customer spend more money. Band-aid after Band-aid being applied. Meanwhile, the licensed maintenance base increased, and along with that comes the 20% annual maintenance fees to add to the vendor's bottom line.

The reality

We are so far from our 1990s dream of simplification and efficiency. We have delivered precisely the opposite and increased the complexity without solving the challenges of integration of all the new pieces we have added in the name of 'user friendliness' and Cloud. Code customization remains the #1 enemy to efficiency and integration. Within months nearly every customer strays from the standard and starts the process of getting 'locked in time.' Over and over again, we have System Integrators writing badly integrated code around the core application with the end result being the customer getting locked into a 'moment.'

The cost of complexity

My position at SAP MaxAttention provided me a rather unique view of our customer's operations. MaxAttention was never cheap; entry level was a three-year agreement at US \$1m per year, many contracts were US \$3-4m annually. The billing rate was that of an SAP Platinum consultant, so approximately US \$350 per hour. A Technical Service Manager would be billing a minimum of 200 days per year. Since these were flat-rate contracts, I will let you do the math. All this is on top of the 20% maintenance fee! MaxAttention was (and is) an extremely valuable service offering for clients, we did good work. But in the end, it is another example of how complexity breeds more complexity. The 'problem' with MaxAttention is it should NEVER have been needed in the first place!

The future

Standard ERP software running in the cloud is a reality but only for a few forward-looking businesses, typically small companies. I agree with your idea of microservices. Easily and quickly designed Applets delivering the required data to the user immediately as and when needed. Big ERP needs to be shrunk down into the engine compartment of the motor vehicle and 'compute' the fundamental business processes. The auto industry is an excellent example of what we need for Big ERP. As the automotive industry has consolidated, the word platform became common. Just one example - Kia & Hyundai – combined to produce a single base platform of engine, transmission & chassis but with the output of a very different 'mission & purpose' built on top of a Sedan, SUV, People

*Mover, etc. So how do we keep Big ERP in the black box while unlocking the data that companies need to deliver upon their mission?
The challenge is real; solving is so much harder.*

As an ERP veteran, he explained above with his experiences in: 'the dream, the reality, the cost of complexity and the future,' Steven hits the nail on the head with his reply. Companies are locked in and forced to spend high amounts of money on annual maintenance contracts that don't bring them the innovation or value they should. We are fortunate to work with companies that have recognized this and are coming to us for a way out.

The birth of Collabrr

We were interested in finding a way to exchange information between enterprises through business-to-business connectivity in the cloud. The information exchange would have to be more and better than just email. It had to be an information exchange in the form of documents. We established a few simple requirements first:

Differentiation from other low code/no code platforms

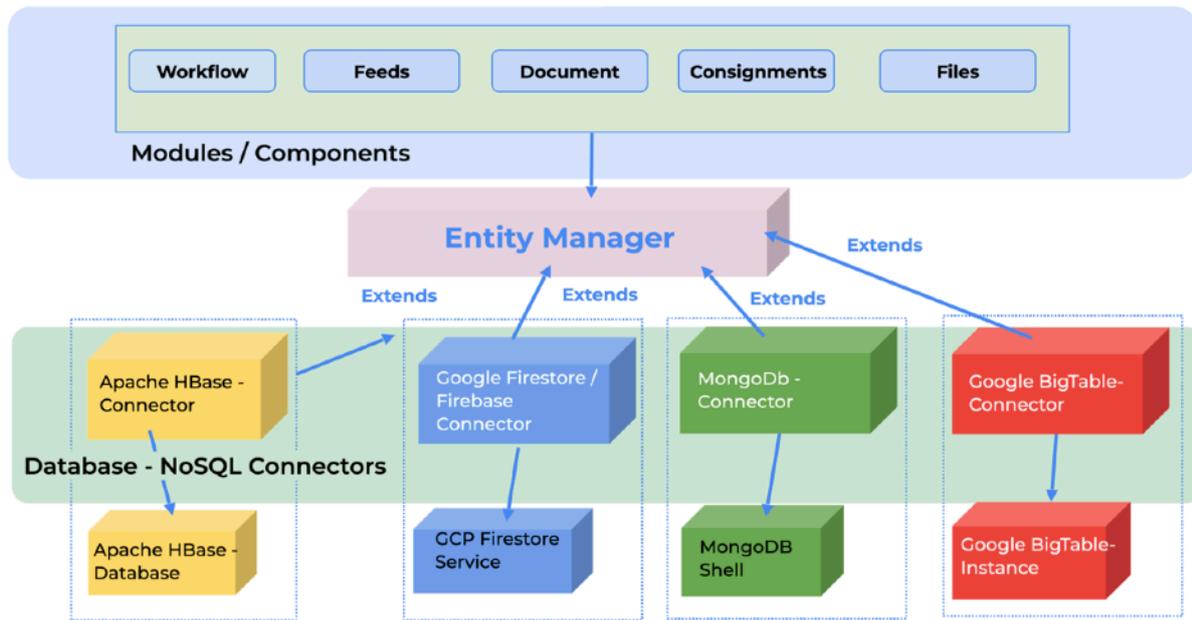
- **Serverless** - app development
- **Database-less** - out of the box multi tenant data store
- **Zero code** - model driven app development - designers, drag & drop - configurations
- **Mobile apps** - delivered inside a ONE APP container.
- **Offline support** - data & workflow actions
- **Collaborative apps** - sharing & conversations on data
- **Integration centric** - app web services, webhooks, generic APIs



- Easy enrolment to the network
- Invite and connect to partners
- Facilitate document exchange

Our common idea was that enterprises form networks just like how people connect with their friends and form a social network. We know it now as the network economy, an evolution of the industrial economy. Products and services are created, and value is added through social networks operating on large or global scales. Enterprises will become the nodes in the network with well-defined connections to other enterprises. Each node will have a select group of people from the enterprise who will participate in the collaboration process across the nodes. Those were the thoughts behind the development of this product.

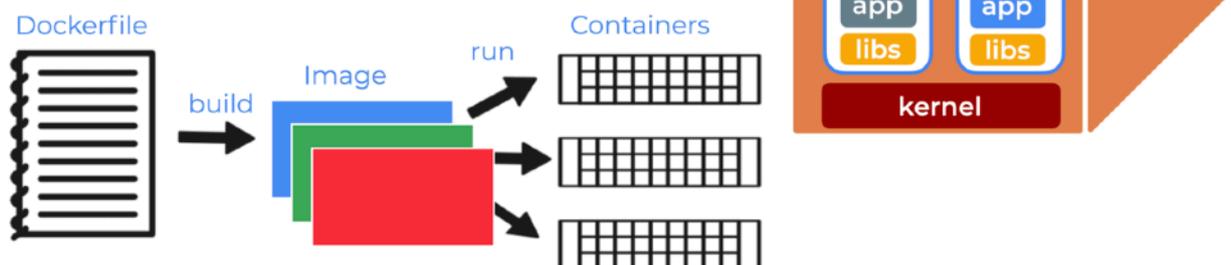
Collabrr Architecture



The key features we had in mind when developing the product were secure business content sharing, document collaboration, and document exchange (in the form of XML documents). We added social network elements like feeds, profiles, and comments. In this manner, we wanted to connect people, processes, and data across the supply chain. Collabrr was the new name for the product, and it was positioned as an enterprise social networking tool to collaborate with business partners on documents.

Concept of Containers

- Provides **isolation** and **portability**
- Self-contained
- Low overhead
- Easy to compose
- Easy to replace
- Easy to scale up / scale down

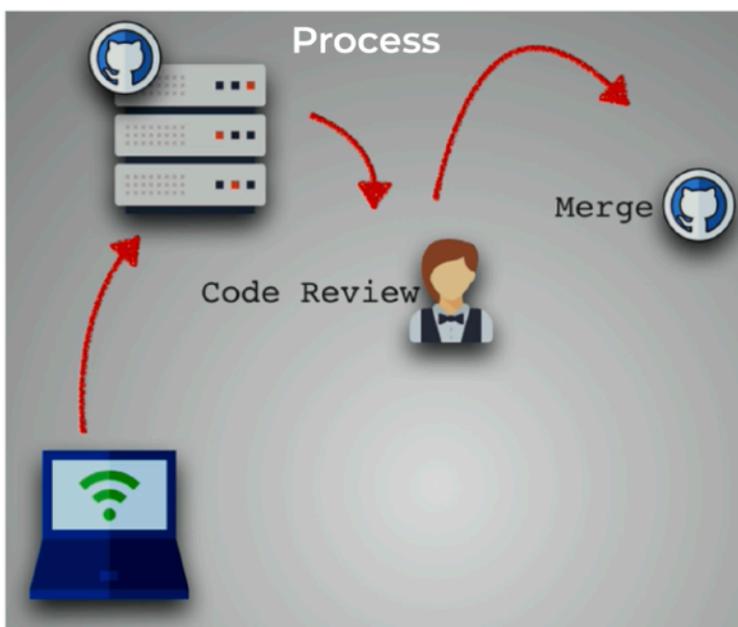


The new generation of microservices

With the Cordys platform, the power users could quickly build MashApps using short, iterative development cycles that were especially effective compared to updating legacy systems.

The disadvantage was that this was often carried out isolated from the corporate IT strategy where built-in company controls were well defined. To enable this, Cordys had developed the Process Factory, a hosted development environment for cloud apps. As it was based on a PaaS, this process helped orchestrate to build apps for companies that directly met specific needs quickly. Collaboration in the execution of business processes was essential here. This led to a deep interest in Case Management. In 2009, the Process Factory laid the foundation for the innovative development of microservices. However, the Cordys board pulled the plug on this beautiful initiative due to the low acceptance level by the average IT user. With no-code/low code becoming more mainstream today, the Cordys MeshApps would have been ahead of the pack by now. As we combined an experienced team of Baan alumni with strong Cordys people specifically for this initiative, in our offices in Coimbatore (South India), I decided to continue this initiative privately in 2009.

A decision that created Vanenburg Software. We agreed that the IP remained in Cordys while we, as Vanenburg, would take care of the ambitious customer Valeo, who converted 6,000+ Lotus Notes applications to less than 500 Process Factory apps in a Google environment. With the experience of the workflow apps, Vanenburg again started to build dynamic workflow-driven apps with our team of 60 experienced engineers. This time, based on integrations with big data, IoT, and machine learning. We called it 'process on demand,' which calls up business services when necessary and modifies or improves a process that is already being carried out. These services are much more advanced than simple 'get data/put' activities and are designed as a 'self-contained application' that acts as a service in an 'end-to-end' process and is simple to realize.



- Developers will only push code changes to development branch. From development branch, we will deploy the build into development environment manually.
- Once the developer level testing is done, the developers can create merge request to release branch.
- From release branch, it is deployed to test environment
- Once verification is done, then it will be merged with master branch, from which it will be deployed to production.

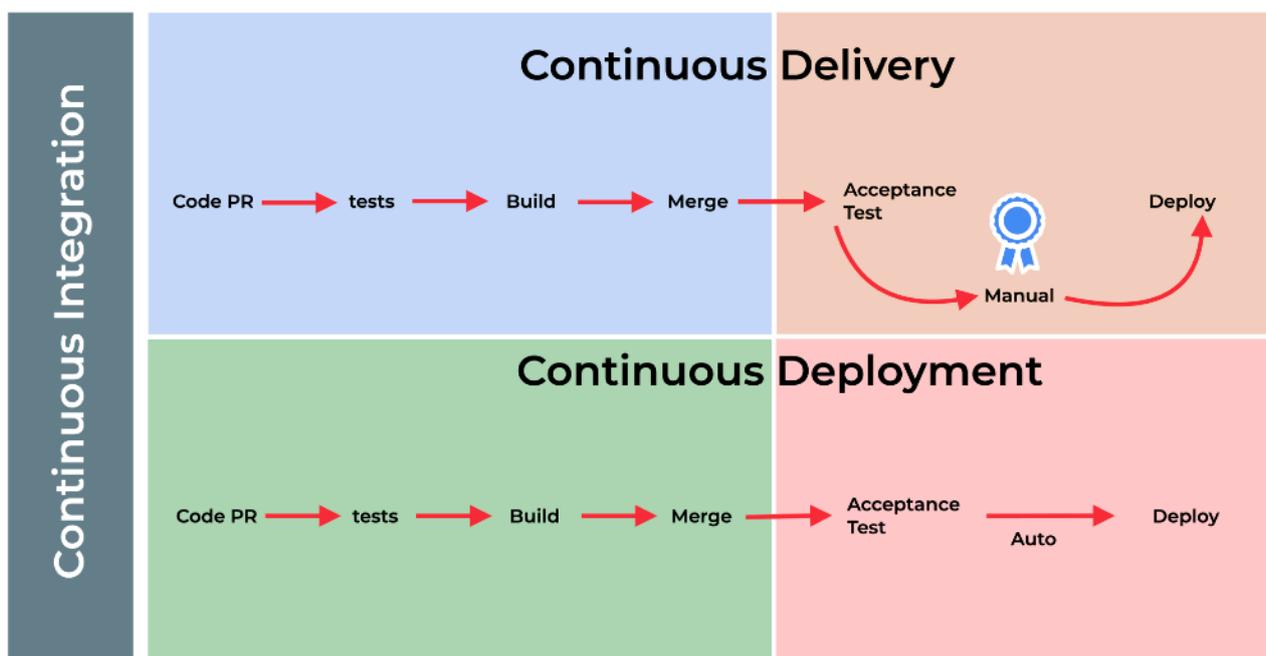
Technology choices

While we developed Collabrr, we had to make various key technological choices. The learnings from previous cloud initiatives helped us avoid pitfalls associated with building such an innovative new product. Some of the technical aspects we covered include scalability & big data, intuitive user interfaces, and a quick response time.

Big Data architecture

Having developed a multi-tenant data store for Cordys Process Factory in the past, we were already experienced with challenges in dealing with traditional databases and I/O (input/output) bottlenecks. To succeed, we needed to imagine a situation where collaboration could happen between any enterprises across the world in a hosted network. Therefore, we needed a 'big data architecture' to capture the connections and the document collaboration. Later we added connections to other NoSQL services like MongoDB, Google Firestore, which offered the required scale on a cloud infrastructure.

Generic CI/CD



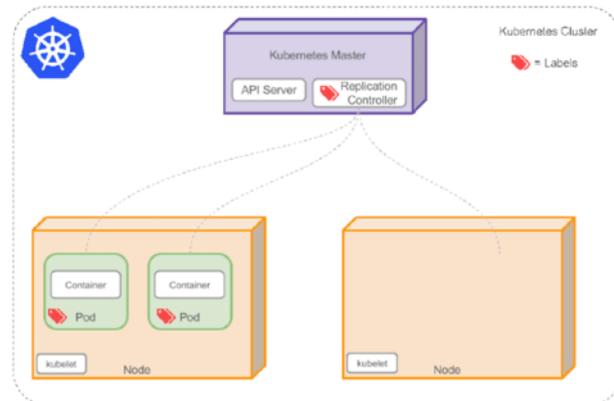
Document centric workflow

With our experience at Cordys and some customer development projects, we learned the major obstacles and challenges of BPM projects. We solved it by developing a document-centric workflow. Our experience with Valeo while developing many of their workflow apps has helped us understand the average application workflow in enterprises. It became evident that 80% of the workflow apps were simple and could be built with a document-

Challenges in Production

Why do we need container orchestration:

- **Scheduling:**
- match containers to machines by
 - resource needs (CPU, memory)
 - affinity requirements (put X near Y)
 - labels (put X only on "test" machine)
- **Replication:** Run N copies of a container
- Handle machine failures by provisioning new instances.
- **Discovery:** Use services in other containers
- **Inspection:** Investigate crashes or workflow



centric approach in configurable steps. The traditional BPM approach of process models with so many features and supporting integrations without the flexibility to change processes easily by the end- users makes the BPM deployments inflexible. It became similar to software developed in open technologies like Java. Changing executable process diagrams is not the way to make apps flexible. It needs configuration possibilities within the application. This learning helped us position the configurable needs of the app in the hands of end-users properly and not as an all-in-one executable BPM model.

From Today to Tomorrow

Collabrr positioned itself to provide a good solution for collaboration among employees, customers, suppliers, and structured and unstructured business documents. The solution enables all stakeholders in the supply chain to view and collaborate on documents in the appropriate business context for improved collaboration, decision-making, and (project) execution.

In addition to this, we now enable companies to build and deploy simple apps in a short time and reduce cost and complexity. The solution provides an answer to 80% of the business app needs (e.g., simple, less complex apps that need to be deployed quickly and cost-effectively).

The 20% more complex apps can be built on Google infrastructure (Google apps engine) combined with Java and HTML open-source library tools. We have set up a dedicated Indian COE (Center Of Excellence) of developers with deep competence in all of these technologies. Our team is a mix of young and experienced talent. Some senior members have tremendous experience in enterprise software development and a history that goes 25+ years back to Baan ERP!

Steps involved in pipeline setup

- **Create the Gitlab Repository Project for Collabrr and migrate** the existing SVN source repository into Gitlab
- **Create different branches & different environments,**
 - development > Development Environment
 - release > Test Environment, Acceptance Environment
 - master > Production
 - tags (Release tags - Based on the need for delivering the hotfixes)
 - feature branches(Based on the need)
- **Review Process** - Implement the merge request for reviewing the changes in Gitlab, the respective developers, reviewers will be getting tasks via mail and the complete review processes can be tracked easily in Gitlab itself.
- **Create the Gitlab runner for configure the pipeline(CI/CD)**
 - Code scanner and Unit Test Cases - SonarQube Scanner
 - Build (Jar, Frontend, Mobile build, Containers)
 - Deploy(Deployment into Test environment, Acceptance environment, production)

Collabrr, our dynamic digital 'workplace'

Our Collabrr product serves as a dynamic digital 'workplace,' where situational applications can be made in the third layer, the 'systems of innovation.' Through workflow-driven apps, all digital communication takes place from the browser on any device. We build innovative apps to support ongoing business process improvement at lightning speed and very cheaply in this layer.

We can connect the static business processes with real-time events on the shop floor and products or machines. It is a unique breakthrough in productivity for the knowledge worker that enables them to look at their own business processes and collaborate with partners in the supply chain.

With its strong PaaS platform, combined with the many partners in their appExchange, Salesforce now makes it possible to replace the legacy systems that operate as individual silos with modern solutions that offer at least comparable functionality but now operate within a single platform. The transactional systems 'systems of record' in a PaaS platform are simplified because of the different functionalities that function as collaborating and inherited objects. All data is stored in one database in a scalable multi-tenant architecture. Customization can thus be decoupled from the core functionalities and prevent the vendor lock-in drama from the past.

It improves future opportunities that address the services in the second layer, which are currently being processed chaotically via e-mails, spreadsheets, and Word documents.

Unfortunately, these static documents can hardly be linked to the structured data systems from the 1st layer and thus increase the gap in the organization. As the services in the 2nd layer are mainly focused on enterprise services, the smart apps in the third layer provide an extreme productivity improvement for the knowledge worker. The supply chain comes to life when new IT applications support unstructured and fast-changing processes. For this, we use Collabrr.

Suppose we project the new possibilities on the manufacturing industry that is preparing to implement the benefits of Industry 4.0. In that case, we now have the opportunity to shed the ballast of the legacy systems from the last century and prepare ourselves for the smarter business practices that the world of tomorrow demands of the digital enterprise.

Eva - no vendor lock-in

Eva is a productivity improvement tool developed by Vanenburg to discover, prototype requirements rapidly, and develop cutting-edge solutions across GAE and non-GAE stacks for clients with machine learning capabilities. Eva stands for 'Enterprise Vanilla architecture'. The goal should be that enterprises use their existing ERPs as plain 'vanilla' (without customizations). The Eva 'architecture and tools', build solutions on top of the Vanilla ERP in the innovation and differentiator layers. As such, it delivers an enterprise grade architecture for any organization. Eva is a productivity improvement framework for application development on cloud, especially for Google. Eva works for multi-cloud and also can handle on-premise solutions.

This approach of using Eva to build task-driven micro-apps on top of the vanilla ERP system helps create an ultimate decoupling point, providing clients more control over their IT solutions. It can effectively bridge the gap between 'systems of record' and 'systems of differentiation / innovation' - defined by Gartner.

Customers can continue to use and enhance the Eva-generated applications themselves even without the Eva tool. There is no lock-in with Vanenburg, if the customer wants to decouple from Vanenburg for any reason at a later time.

Applications built with Eva can be deployed on multiple clouds like Google, Amazon, Microsoft Azure, etc. The application can run as a Google app engine (GAE) application (which is an automatic, highly scalable, fully managed service for hosting web applications), or the application can be packaged as Docker images. The containerized app can be run in various Google products such as Google Compute engine, Kubernetes, Anthos, or any other cloud provider of their choice, or even on-premise. Anthos is an open-source platform supported by all cloud providers.

Business benefits of Eva

As a Productivity Improvement Tool, Eva helps gather the requirements visually, rapidly, and iteratively. Traditionally the customizations process can become complicated when customers want design changes after the initial intake and delivery. Our idea was to enable a rapid and iterative development process. It allows a consultant who works side-by-side with customers to build and visualize prototypes, thereby capturing their requirements better and faster — giving developers a confident head-start instead of building everything from scratch.

1. Reusability and lower footprint

Eva is further beneficial for developers to standardize the architecture, drive best practices & consistency. It transforms the way products are developed by enabling maximum reuse of our code components. Eva ensures the continuity of the innovative nature of the product.

2. Reduces complexity

Eva reduces the complexity of application development because it handles all the technical layers, allowing application developers to focus more on the application's functionality rather than on the technical details of the application. As the generated application follows the same architecture of already existing apps used by several 1.000s of users every day successfully, scales well, and is robust, it helps the development team adopt the best practices and proven architecture and avoid reinvention.

3. Enables deployment of junior developers

It allows more junior developers to be deployed on projects. Cross deployment is easy between GAE and non-GAE application stacks because again, the technical layers are taken care of by Eva, which provides the functional layer for the application builders as plain JAVA, enabling more junior developers to work. For the application engineer, it helps harmonize the delivery process for all teams following development best practices.

4. Promotes best practices

Eva helps to make our promise come true. We guarantee that our applications are smart and flexible, developed according to our proven best practices and coding standards with maximum reuse of what has been developed earlier, so that we

deliver our customers the best value for their money. We already have examples where ERP was unchanged, and a connected app was built to bring in new features:

5. Open source components

Eva - rapid prototyping - requirements gathering

The [consultant](#) gathers the requirements from the customers. During the discussion, the consultant uses the Eva Boards to visually, interactively and iteratively capture the overall process flow diagram, workflow diagrams, UI wireframes and navigation, use cases and functional data model.

Eva provides a standard Google sheet template to capture all the requirements.

It allows the consultant and customer business owners to visualize the application at this stage.

The visualization helps the customer to get an in-depth understanding of how the application will look, what more fields are required, what are the missing features, etc. and iteratively, refine the requirements much more clearly.

The customer cannot just 'see' the screens, but also 'play' with it - as the working application (with specific app logic and customization) is instantly generated and deployed.

The additional clarity due to the visualization of the prototype and the 'useable application' is very useful for the customer to get the right requirements shared at the very start of the project and for VS to make the right estimation and planning.

Auto-sync to from transaction DB to analytical DB (like Big Query)

Data backup & restore

Email templates

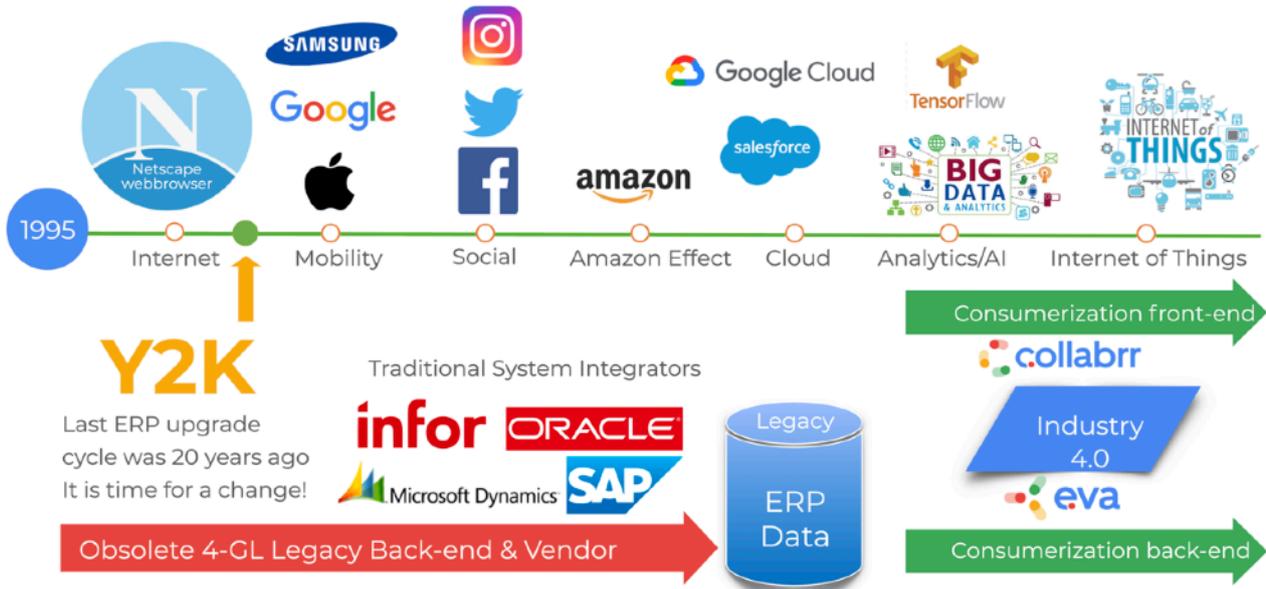
Automated test cases source code control, CI / CD

So, a large portion of the working application is already available as a microservice architecture

No vendor lock-in

The greatest tragedies we are experiencing today from the massive innovation of the IT industry over the last decades are the major players' threats through their vendor lock-in policy. In part two, I explained the craftsmanship of the traditional ERP implementation journey. Especially the complexity which we have created in the past by changing the vanilla ERP solutions, through which we inherited far too much customized functionality. Strategy consultancies came at the end of last century with the new concepts for process improvement called BPR (Business Process Reengineering), by using the ERP best practice functionality as a BPR catalyzer for 'end-to-end' business processes for contributing to Porter's Operational Excellence (OpEx). Unfortunately, this great initiative did not seem feasible because those legacy systems could not support the adoption of new IT

Consumerization causing ERP replacements



components. The complex ERP systems with tens of thousands of database tables turned out to be too complex to realize Business process Reengineering at the beginning of this century. Conclusion: The BPR show is over!

Containerization

In addition, the later generation of open source tools including Kubernetes, as well as the Google Cloud platform provided the containerization of the data as a solution for our Edge Computing. This provides an enriching insight for complex workflow solutions for the knowledge workers. Mainly because of our experiences at Valeo with TensorFlow, our collaborative workflow has enriched apps with machine learning, which provides the knowledge worker with the wisdom to make better decisions.

I described the possibilities of an innovative platform, such as Eva, in collaboration with the powerful tools of Google. It is now easy to pick up the data flows from the legacy systems with a product such as Anthos and then enrich this data with Big Query and further enrich it in the cloud with a workflow application. As a result, all data is now available for enriching machine learning. In the aforementioned fifth wave of A.I. data is really going to be the difference here. A platform such as Eva, which works with powerful open source tools, such as Kubernetes, now makes it possible to further develop the containerization of IT at the front end, with integrated data solutions from the back end.

The intervals on the green timeline in the picture below present the greatly simplified consumerization of IT over the past 20-25 years. This has led to an enormous value increase of the digital giants, as the logos above the timeline show.

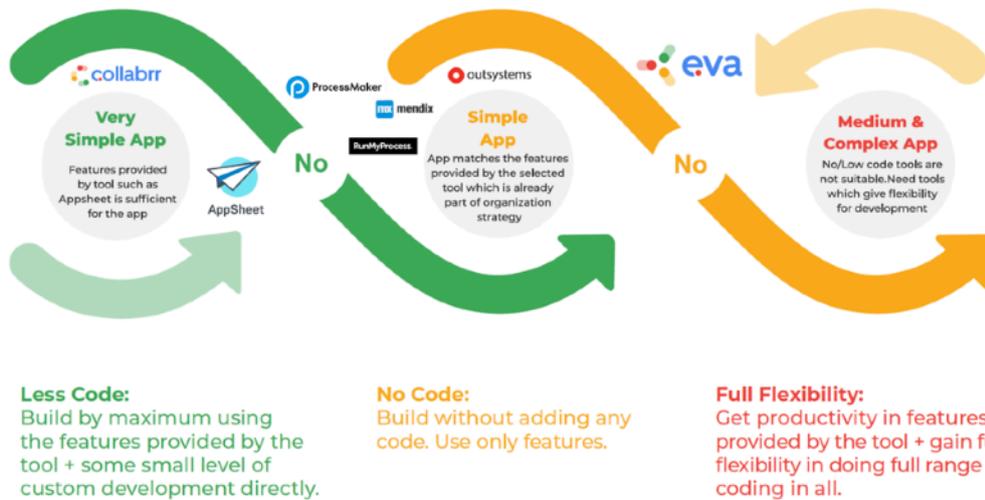
At the end of the last century, the complex systems were being taken care of by hundreds of thousands of developers, most of them in India, who managed to get the Y2K problem under control. In retrospect, you can say that this, unfortunately, succeeded. As you can see below the timeline, there have hardly been any innovations since the turn of the century. Most companies that use the traditional business systems are still locked in very outdated legacy systems. This energy could have been spent much better (a few years earlier) on rebuilding these systems from scratch with Java tools and based on the functionality of the internet. Unfortunately, all innovation stalled after these complex systems were lifted into the new century and avoided the Y2K problem. With the experience we have gained over the last ten years and especially at Valeo as one of the most innovative companies in the automotive industry, we have tackled the problem of the integration of legacy ERP systems.

We are now able to use our Eva lean low-code platform, which enables us to easily integrate both the relational databases of the legacy system and the logic of these complex applications with Eva. As a result, building new solutions has been greatly simplified, as well as made more powerful by the underlying tools, as mentioned above. These microservices have become very scalable and work without delay with many tens of thousands of users simultaneously. Thanks to the DevOps tools, these dynamic micro-apps have also become much more stable and reliable. With our zero-coding Collabrr platform, it is now a piece of cake to realize micro-apps for the executive tasks of the collaborative knowledge workers who have to work together in a supply chain solution from different disconnected companies in a joint multi-tenant network.

I wonder then whether the industrial companies that now have a very low valuation can no longer get into the driver's seat. Instead of 5 other digital tech giants with a US \$10,000 billion market cap, we would be better off with 10,000 new unicorns, which then offer consumers much more freedom of choice, as well as no lock-in due to much wider competition among themselves. So, it is time for the consumer (the citizen) to take the driver's seat.

No-code versus low code

Ever since the acquisition of the Cordys Process Factory (CPF) in 2009, we have been focusing on big data and low-coding and zero-coding platforms. First of all, our Collabrr zero-coding. We have seen the productivity of low-code platforms increase over the past years. Valeo has been reluctant to use these platforms, despite the productivity advantages, but has come around after working with us. We have linked their back-end systems with the microservices. Valeo was one of the first Google users, now more than ten years ago, who decided to replace all its thousands of Lotus Notes apps with Google apps. Our Cordys Process Factory (CPF) was used for this at the beginning of this century.



When starting an application, choosing the right tool/platform for it is an important decision to be made.

There is no "one solution that is a right fit for all needs."

Making the right choice at the very start of app development is crucial for a successful delivery.

Choosing applications that are the best fit for Eva

In 2009, before Cordys was sold to OpenText, we already transferred the CPF development team from Cordys to the Vanenburg Group.

At the time, a basis was laid for a zero-code platform (Collabrr) as well as for a low-code platform (Eva). With the Eva technology, the most complex workflow solutions were then rebuilt in the latest Google platform technology. This concerned applications, in which sometimes more than 20,000 users were linked to SAP back-end systems and 60,000 users in improvement apps (without SAP connector).



Our two biggest customers Valeo and Solvay are very wary of getting into a further vendor lock-in situation. In addition to being very careful to accept privacy platforms (such as Mendix and OutSystems), the runtime costs for the platform when using tens of thousands of users are also far too expensive. This has motivated us to build our Eva ecosystem over the years in such a way that there is absolutely no vendor lock-in situation. We already had a lot of experience with the Baan shell in 1984 (see for this my book part one, (system of record) chapter 1).

The B-Shell was the basis of a converter that converted our event driven 4GL language to the C language. And all managers (engines) in the B-Shell were also built in this portable C language. In addition to the fact that this gave us enormous performance, we were both database and Operating system independent. Admittedly, our runtime version remained

our property and we could make a generous living off the maintenance costs in the coming years. Now we have applied this principle by using the functionality of the Google sheet to record the business knowledge. From instant prototyping we are able to generate a working cloud application.



1 . Requirement gathering

Eva provides visual graphical boards called ‘Eva boards’ - to capture process Flow diagram, use cases diagram, entity relationship diagram, UI screen navigation, and any other diagrams as needed. The consultants use these boards to discuss and gather the requirements in a standard way. The Vanenburg consultants also update a standardized Google Sheet

The code that Eva generates is with the following technologies:

Platform	Google App Engine (Standard Environment)
Languages	Java 8, AngularJS, CSS3, Bootstrap
Databases	For Transactional Data: Google Firestore
Analytical Data	Google Big Query
API Management	Google Cloud Endpoint
Mobile	Using PWA (Progressive Web Apps) for mobile browser Uses Cordova to pack as native Android / iOS app

template for capturing the requirements. The standardized template guides the consultants to capture all the necessary information in the right way.

2. Prototyping

Based on the requirements captured in the Google sheet, Eva generates the application prototype with actual screens and navigation shown instantly. The visualization of the screens helps the business teams to have a very clear idea of what the final app looks like and refine the requirements. Apart from the visualization, Eva generates the working application. The working application helps the key users in the business team play with the screens hands-on by entering real data. This further

allows for identifying the gaps and fine-tuning the requirements at the requirements design stage itself. It's often noticed that the requirements get refined when the screen designs are shown to the business team and when the users use the system, which often happens only during the user acceptance testing stage. At this stage, a lot of fine-tuning is logged, which creates many change requests delaying the project go-live and increasing the budget.

Eva helps clarify and get clear requirements at the earliest possible time through the app's visualization and allows the end-user to have hands-on experience with the app during the requirements design stage, thereby reducing the risks in the project delivery.

3. Design documentation

Documentation of the functional and technical details of the application is very important for the maintainability of the app for several years. The development team members might not always maintain the application and may have to transfer the knowledge to different team members or different teams/vendors for maintenance. Having well-documented functional and technical details will help in this. In the Google sheet template provided by Eva to capture the functional details, there are sheets to design and capture the technical details. Having proper documentation is also important for information security to cater to the General Data Protection Regulation (GDPR) requirements.

4. Code generation

The core of Eva is the code generator. The generator reads the functional/ technical details captured in the Google Sheet template provided by Eva and generates the code for the working application.

5. Custom coding

In addition to the generated code, the developers can add their custom code in the front-end and back-end. When the designs are updated in the design sheet and code is regenerated, the custom coding is still retained and is not affected by the regeneration. This gives freedom and flexibility to the developers to add any code as per functionality needed in the application. This can be done at any stage - even in parallel when the requirements gathering is still going on for some parts of the application or the next release, while the developer can start coding for the parts that are clear.

This allows both the consultants and developers to work together collaboratively at the same time but still independently and progress faster. Developers are not restricted in what code they want to add or to which layer they want to add code (front-end, back-end). Custom code can be as extensive as needed. Other technologies can also be added - for instance, using other libraries in the UI or back-end, e.g., use Pub/Sub or Kafka or other messaging layers as needed in the app.



We also see the enormous developments of Google Cloud platform. For the first time, there is now a TechGiant who respects that the data must be in the hands of the customer (or citizen). With their Anthos operating platform, multi-cloud applications as well as on-premise solutions are now easy to realize. The encryption key is now in the hands of the application builder and no longer with Google. In addition, we see a much more effective DevOps management, as well as a completely different scalability than with the relatively small cloud suppliers such as Mendix and OutSystems with their proprietary cloud solutions, whereby a strong vendor lock-in situation has arisen.

I think this is different with a non-coding platform, such as our Collabrr tool, or the similar Appsheet solution, which was recently purchased by Google. These are simple tasks, which have to be completed quickly and can be used directly on a mobile device, avoiding the Apple app-store. Ultimately, these personal apps are sort of disposable micro apps. But if desired, we can also easily make our Collabrr platform available for dependent parts such as freemium and open source.

Growing organizations by modernizing enterprise IT.

Business environments are becoming more complex every day - that's the reality for every company. We believe that reshaping customer experience, operational excellence and business models by adopting a digital platform are key to be relevant and profitable. Companies should improve continuously and quickly while respecting the investments that have been done. By democratizing and simplifying IT, companies can transform themselves into a digital enterprise and gain a competitive advantage.

Ultimately, you see that not much has changed in the implementation of our vision for software development. We still have the same attitude as in our famous Baan culture, which I have given a lot of attention in this book.

Our why

- We are passionate about [making your enterprise digital](#).
- We are ERP experts for more than 30 years, in which we become one of the leading ERP of the 90's to being on the forefront of ERP renewals.
- We have a [strong background in, and an exclusive focus on, Manufacturing, Distribution and supply chain companies](#).
- We are [technology experts and always lead](#) with innovative smart technologies.
- We are committed to designing and building [tailor-made software solutions](#).
- We offer the [lowest TCO](#) by applying a [rapid application development](#) approach on open technology, [avoiding vendor lock-in](#).
- We make your employees, suppliers, customers and 'things' more productive with intuitive and future-proof software solutions.

[Modernizing your enterprise IT \(without locking yourself in\)](#)

For the business, modernizing means industry 4.0 enablement; digital transformation guidance; containing your core ERP and augmenting it with proven smart process and task apps; based on an open architecture and modern technologies; avoiding lock-in; enabling flexibility, agility with a seamless user experience; replacing your core ERP legacy applications if and when you are ready. For IT, modernizing means: cloud based; leveraging AI and machine learning; IOT enabled; rapid low code development environment; API management; intuitive user interface; open enterprise IT architecture.

[Vanenburg's entrepreneurial history](#)

Keep it simple was always our slogan. Keep the (traditional) logical data of legacy systems still as the foundation for AI/ML and connect them with BigData and BigQuery, lift and shift these legacy processes with new functionality by building the most modern systems, on top of their traditional systems. These new services are the dynamic workflow apps deployed in a Google workspace in which we connect those workflow tasks with the (now) intelligent enterprise backend data. The citizen users are able to improve these workspace apps with Google workspace products like Gmail, Maps, Agenda, Document, Spreadsheet, Contacts, Meet, and Search.

From our many years of experience in building and implementing complex ERP systems, we have built our Eva platform to use these legacy systems as vanilla solutions, in which we easily integrate these legacy systems with the consumerized REST-api's. Our 'lean low-

code' generating platform Eva, generates super fast the new demanded logic by using all infrastructure components with the powerful cloud native tools from Google and other popular open-source components. Unique in our platform is the ability communicate directly with the business owners, because we automate many traditional architectural tasks in our Eva platform, by which we immediately generate more than 70% of the Java source code, but simultaneously adding to this generated code, the always still needed handwritten code for finishing the last (often) complex mile. In addition, the powerful Kubernetes containers offer us the opportunity for fast building complex applications.

Due to the generated Java code, we need no longer a runtime version, by which we avoid a revolutionary breakthrough vendor lock-in situation. These (Java) micro apps can easy be enriched with Python ML code to support Google's Vertex AI. With this we now have a grip on all the underlying data (*end-to-end*) as '**one version of the truth**', including the legacy data. Our dynamic workflows can be integrated with edge computing, dynamic linking the sensors (IoT) at the latest moment (late binding).

Google Meet can now play a collaborative role, integrated in these dynamic workflow apps, whereby the job to be done can be shared with the supply chain partners. Peter Drucker had already predicted at the end of the last century that technological innovations at least can double the tasks of the knowledge workers in terms of productivity.

It was therefore very gratifying for me to use the translation of the vision of Clayton Christensen about the function of disruptive innovation for the job to be done for the innovative and disruptive business functions in the digital enterprise, guiding our customers on the road to achieve the Industry 4.0 business benefit. But most important is still the integration with the existing legacy back-end systems, in services for the knowledge worker. These apps-as-a-service can be realized supported by Google's IaaS with which they are the king in this arena. I am happy that we have been bitten for over 10 years by the disruptive developments of Google.

In this, we now mainly see that our differentiator lies in our sustainable workforce. The core of our team in India has collected their experiences already last century at Baan Company by building complexed 'just-in-time' ERP systems, as a pioneer in the Unix operating systems. Then again they followed me to start my Cordys company, building cloud solutions at the beginning of this century, connecting the internet browser for connecting the dots.

My colleagues build our disruptive Business Operations Platform using Java, but Google those days hardly played a role here, because we had to arrange 20 years ago everything



And the “Most loved Google Cloud Partner” award for the most certified individual of the year goes to.... Hans Don!

Vanenburg is proud of this personal achievement recognition which Hans received during the ceremony at the Benelux Google Cloud partner exchange event in Amsterdam.

The “Most ❤️ loved Google Cloud Partner” award was handed over by Matt Feigal, Hendrik-Jan Hunink and Petra Stojanovic-van Kan from Google Cloud.

Hans congratulations, June 2022

around cloud provisioning, state machines, CI/CD by ourselves, as well as we had no idea of the power of tools such as Kubernetes and the benefit of BigData and AI/ML. But now again, together we burned our ships, and again our core team moved into native cloud development, supported by Google, by which we have managed to realize an unprecedented productivity improvement.

We owe a lot here to our CTO Hans Don, who played a connecting role between our software factory in India and our ‘go-to-market’ approach in The Netherlands for the past 10 years together with my son Ardjan, responsible for our operations. Therefore it was very gratifying to see that Hans Don was also particularly appreciated recently within Google, they put Hans in the spotlight with a prestigious award from the man with the most Google certificates. And it’s not for a nerd who specific can enjoy himself in programming, but as an executive and CTO who functions more as a master architect. Indeed this makes this award real special for our company.

Aligning IT & business together

This is precisely the value of aligning IT together with the business. After all, as Clayton Christensen mentioned, it ultimately is no longer the customer’s focus in the inbound enterprise, but with Peter Drucker’s vision the equipment of the dynamic workflow tasks from the knowledge workers in the supply chain. And these tasks are many and also different for every employee. Last years Hans Don, together with our Indian team, has build many native cloud apps, on top of ERP functions to improve the many jobs to be done, without the vendor lock-in restriction.

By developing modern workflow apps for improving *the job to be done*, we see many variants in this, which our team has architecturally realized. In addition to Valeo, I mainly think of another Google Star in Europe, Solvay. Also we have been able to tackle the full 'door-to-door' TMS process in a disruptive way at Newport, whereby a complex quote now hardly takes much time. Newport has been able to achieve enormous savings with this. These experiences have helped us further with an innovative TMS approach at Verhoek.

Furthermore, Hans and his team are involved to ensure that the enormous growth of our client Omoda can be facilitated. Their existing ERP package on an AS-400 will be replaced and is now being realized as an innovative warehouse management system whereby the back-end data must strengthen the innovation webshop functions.

At Qualitree, one of our customers at the Canadian West-coast, we support them to expand their CRM starting point with Salesforce into a horticulture ERP system. The Qualitree CIO used to work at Baan Canada and remembered the value of the 'available to promise' function in an ERP environment. But how could that be to be realized in a dynamic horticulture environment? It was my pleasure to see last year the demo by our Canadian friends of the 'available to promise' services in a horticulture ERP system. Here too we see the disruptive innovative drive at this innovative company along the Fraser River at Canada's beautiful west coast.

When it comes to Undoc, the processing of static documents, we have seen that a lot can be achieved by making those documents dynamic. After all, the Google-OCR tool is extremely helpful. Now we can translate all kinds of documents, think of invoices, cargo letters or written notes into dynamic documents and enrich them with AI/ML. Especially the link of different areas in the job in de done is revolutionary.

Clayton Christensen's books have a lot to offer me, but especially in combination with Crossing the chasm by Geoffrey A. Moore, where we have intensively introduced his model for collecting the right components for realizing a unicorn in the past years. In addition, I would like to mention the books from Collins: Good to Great and Build to Last. This is how the human factor, in particular, comes into the picture of following the right attitude of the organization by the independent human, which dares to make mistakes and then they ask for sorry, instead of asking permission before. For me, these books have formed me as the founder of the Baan Company dealing with disruptive innovative processes and have achieved what many now mention with me as the famous Baan culture. See chapter 6: On being human in business, in part one of my autobiography. relationship with the VC (other than in Baan Company). But this experience to become wiser, as well as having realized a positive EBITDA, requires a more careful and thorough approach from me.

At my time at Baan Company I realized how important it can be to involve your employees in your strategy and give them the freedom to execute, and also reward them with sharing the benefit of your market cap growth. Because from all your supply chain partners, your employees are the warm site of your family. Therefore, I have reserved 12.5% of the shares in an attractive SAR's plan, with which I hope that more than the expected incentives of my staf will be contributed to their families in wealth.

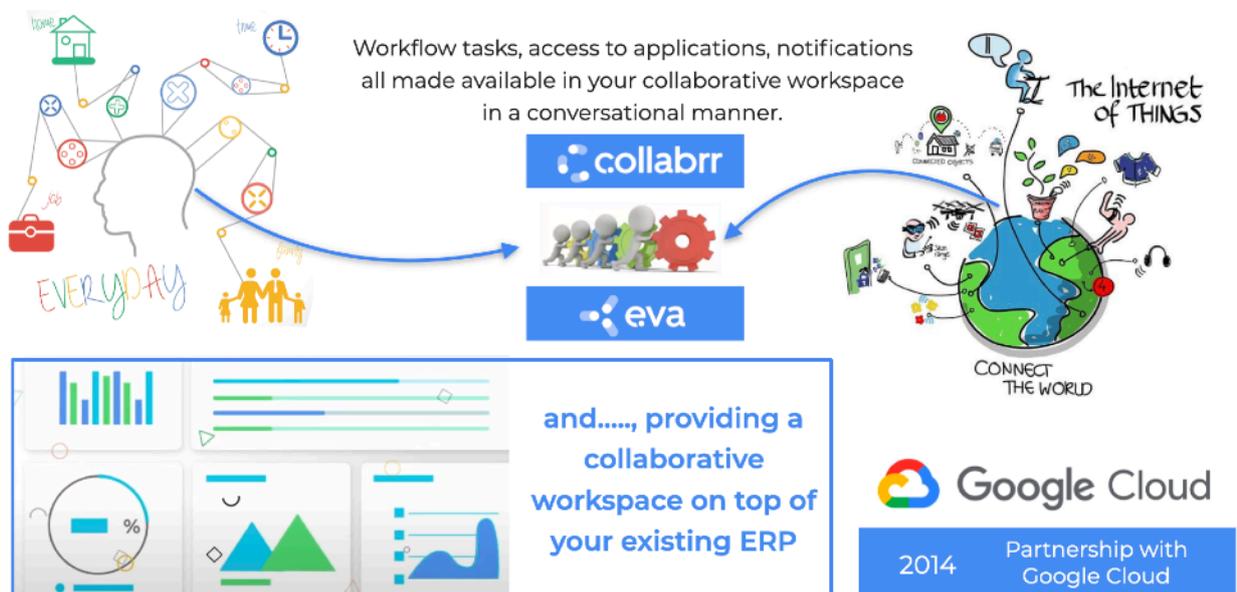
The new internet cockpit for the digital job to be done

So we are no longer satisfied to be able to realize 1% more profit of the revenue that mainly has to do with improving IT processes. No, it is going to be a lot for us now to double the EBITDA. This means that fewer employees now ensure that we can achieve much greater growth with a much better margin, whereby he will improve the multiple of the companies market cap.

Why are all the big financial results achieved by a few digital giants, where we see today that only 5 companies managed to realize more than 10,000 billion market cap? I am now going to instead of noting 5 companies with this value, new disruptive innovation can contribute to 10,000 new unicorns in the world, where many more countries could benefit from this, especially in the solutions of current problems we see with fear in the world around us and often see.

We see the knowledge worker central in this overview. In the performance of his duties, he still uses the legacy back-end, but it does control the data today. With disruptive innovation, this data will becomes knowledge. Tools such as Google ensure that much social information can be added to this.

Improve the productivity for the Job to be done



By using modern dynamic workflow apps, also the edge computing data can be integrated to these workflows and can be integrated at the right time, such as the data from the billions of sensors around once. In the end, we see that with our beautiful Eva and Collabrr products coupled with our knowledge about the last 44 years, we still have a unique addition to companies, but what is much more for the knowledge workers in the supply chain to better collaborate together.

Three times we burned our ships for a new disruptive initiative

The same disruptive innovation model could be in the future for integrating ERP solutions like SAP and Oracle and lifting and shifting new workflow tasks on top of those legacy systems for the new digital task to be done.

We at Baan could use the Unix PC's already in the early 1980s because we developed our famous B-Shell for handling the three-tier architecture framework with the Database; the Logic and the User Interface decoupled. Therefore we also could use the Mini computers those days from HP and DEC to compete with mainframe solutions. Later in Cordys, we used the browser as connecting the dots for the UI connection and we were able to build a state machine for dynamic applications together with a collaborative workspace to handle transactional and also case management-driven data. And our business operating platform allows us to compose business process-driven apps in the runtime. But we experienced the complexity of being an early bird in disruptive innovation in the BPM space because it was still too limited to replace the complex ERP solutions of the back-end. But we succeeded in lifting and shifting workflow-driven applications. Therefore we build the Cordys Process Factory for collaborative apps for building IT platforms for workflow-driven solutions.

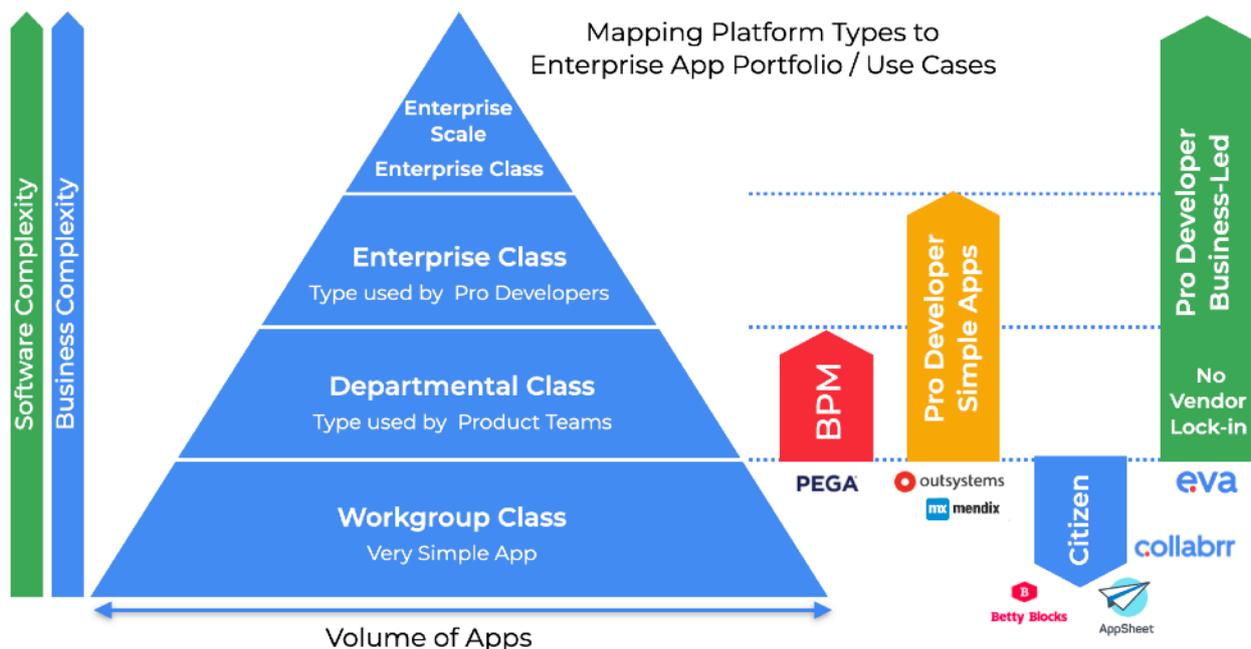
Again we burned our ships because Cordys became acquired by OpenText and we were able to take our innovative CPF team (whiteout the IP from the current product) with us as a new beginning in Vanenburg. Instead of using the complex SOA component, like we did before by building a complex state machine, 20 years ago, with the complex SOA api's. Again we decided to start with the newest IaaS open source components like the REST API, Kubernetes, big data, and using the Google IaaS components, like all DevOps, CI/CD, Landing-place for cybersecurity, TensorFlow for ML by combining with our Java generated apps, Python ML scrips, where we will now be realized using IaaS (Infrastructure-as-a-Services) together with low-code generated apps, including all the DevOps, AI/ML, Landing-zone, Containerization services (Kubernetes). This means that we have control over all the connected back-end data and lift and shift the underlying logic with dynamic microservice apps end-to-end supported by AI/ML. Our collaboration inside this turns every customer conversation into AI-driven business intelligence and out-of-the-box reporting. We see today the benefit which is given in Cloud-native options, like OutSystems

with their new Neo solution using Amazon's IaaS. We as Vanenburg with Eva are supporting cloud-native in GCP. In the OutSystems-Neo cloud-native model, they are using Kubernetes to manage automatic scaling - though it is called 'serverless' since it runs on the cloud, it is not fully serverless. For example, in GCP, app engine, cloud Run, and cloud Functions are truly serverless as we don't need to worry anything about managing any infrastructure components while Google compute engine and Google Kubernetes engine have much more management to be done (by the operations team) as they have some servers to be managed in the operations side.

In Eva, we generate using GCP native and purely serverless components. The advantage of this is that the running costs are much lower than Kubernetes hosting, cloud Operations work is much lesser as all components are fully managed by GCP and therefore operations costs are a lot cheaper. In this case of Neo from OutSystems, support for AWS cloud-native for high scaling and CICD are the important elements introduced. Comparatively, Eva supports that already by being GCP oriented with high and automatic scaling of infrastructure and CICD enabled. In OutSystems-Neo, it still has vendor lock-in just like the regular OutSystems apps.

In Eva, the generated code is owned by the customer, and the code follows best practices such as what is approved by static code analyzers such as Sonhrqube, and security penetration tests recommended by OWASP Top 10.

How does Low-Code voor Pros Differ from No-Code?



3. Customer cases

Collabrr, the platform for e-invoicing

Partnership eConnect

In our partnership with eConnect, a Dutch e-invoicing company, we used the Collabrr platform to modernize one of the essential business processes, the administration process. Our mission was to create a fully automatic invoicing process for everyone. The eConnect solution in Collabrr is available for every organization. It does not matter which branch you are in or how big your company is. For example, we offer freelancers a free platform for drafting and exchanging e-invoices. entrepreneurs can easily use e-connection through their existing financial software to e-invoice. Therefore, we have the perfect accounting solution to process all the customer transactions automatically.

The grip on your billing process

With eConnect, you can change your billing process. You no longer have to wait for payment. You can actively check the status of the invoices you have sent. An electronic invoice (e-invoice) can be generated by eConnect.

This offers many possibilities:

1. Did you send the invoice to eConnect?
2. Has the sent invoice been delivered to your customer?
3. Has your customer opened the invoice?
4. Has your customer read or processed the invoice in their own administration?
5. Has your customer paid the invoice?
6. Has the payment been received from you?
 - The benefit for the supplier: fast payment, right payment and status insight.
 - The benefits for the customer: reliable process, less work and automatic electronic.
 - eVerbinding offer all kinds of documents: Photo, PDF, XML, UBL, energie e-payment, e-invoice, sales in construction, etc.
 - All delivery routes possible: Email, FTP, portal, client app, simpler invoicing, PEPPOL, etc.
 - Everything processed as an e-invoice

Collaboration in the chain around invoices

Several years ago, we used our Collabrr platform to build an 'online invoicing hub' to dynamically and completely automatically arrange the process of online invoicing. Not only is the processing of invoices between companies and institutions now fully automated, but

we now also have insight into the workflow steps of this process, and we know for the first time who should perform tasks where and when.

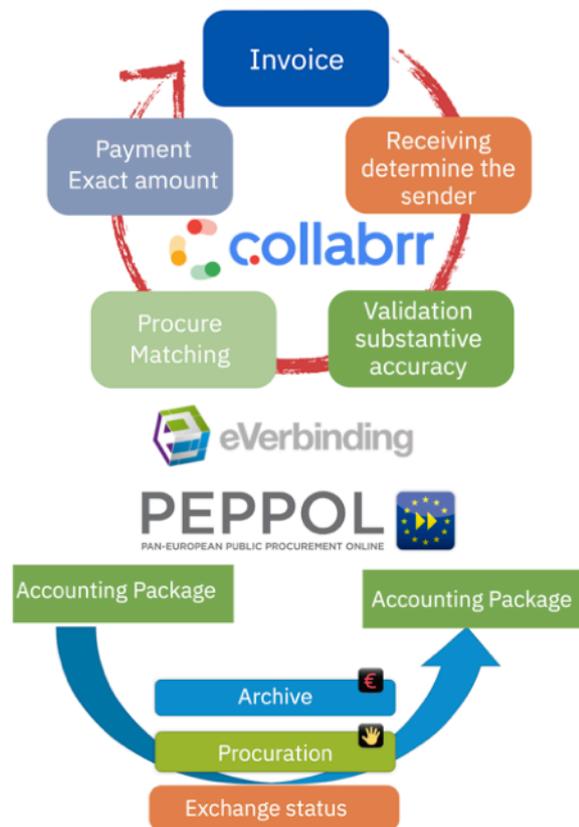
The eConnect solution addresses an important process as a smart process app in the 3rd layer. We no longer have to execute these tasks from the different legacy systems. As a 'collaborative process, it can extremely simply be placed in the center of the chain (supply chain), outside the enterprise. Adjacent document-driven processes can greatly enhance this e-Billing process; think of a digital consignment note, for example, or a 'procure-to-pay' process between several suppliers.



Supply chain management through marketplaces and networks

Our product Collabrr facilitates the modern knowledge worker to cooperate in a network to produce secure documents and easily creates contacts for the maintenance and sharing of documents such as texts, spreadsheets, presentations, files, and UI screens, with business partners. The emphasis will be on the productivity of the knowledge worker who collaborates with supply chain colleagues.

Apps such as procure-to-pay are ideal for document-driven business processes apps. These apps can be enhanced with information from the IoT (Internet of Things) and big data. The procure-to-pay systems enable the integration of the purchasing department with the account payables department. Some of the largest software industry players, such as Oracle, SAP/ARIBA, B-PACK, and Procurity, agree on a common definition of procure-to-pay, linking the procurement process and financial department.



This on a state machine-based workflow is 'event-driven.' On condition-based transitions can be inserted into different states or steps, such as events or notifications. As a result,

Document based applications on top of our Collabrr platform will work within the partner network platform and provides

Trade Smarter

- Collaborative, intelligent workflow
- E-invoicing
- E-document exchange
- Supplier management
- Streamlined process and faster cycle times

Improve Cash Flows

- Accounts payable management
- Accounts receivables management
- Reduce working capital cycle time
- Reduce working capital cost
- Pay the right taxes

Reduce Costs

- Reduce procurement cost
- Reduce transaction cost
- Reduce manpower cost
- Reduce cost due to errors and fraud
- Reduce administration cost, go paperless

Get Insights

- Real-time data, greater visibility
- Order tracking
- Spend analysis and control
- Management reports
- Easy audits

powerful apps can be built that may be integrated with a complex external rule engine and complex machine-to-machine communication (IoT).

‘Procure-to-pay & ‘order-to-cash’ workflow

Project ProcWorks is a collaborative, cloud-based procure-to-pay, order-to-cash, and workflow management platform designed to help small and medium businesses trade smarter, reduce costs, improve cash flows, and get analytical insights.

The platform enables buyers to collaborate with sellers (or vice-versa) and manage trade online, minimizing manual work, endless emails, and consequent loss of productivity.

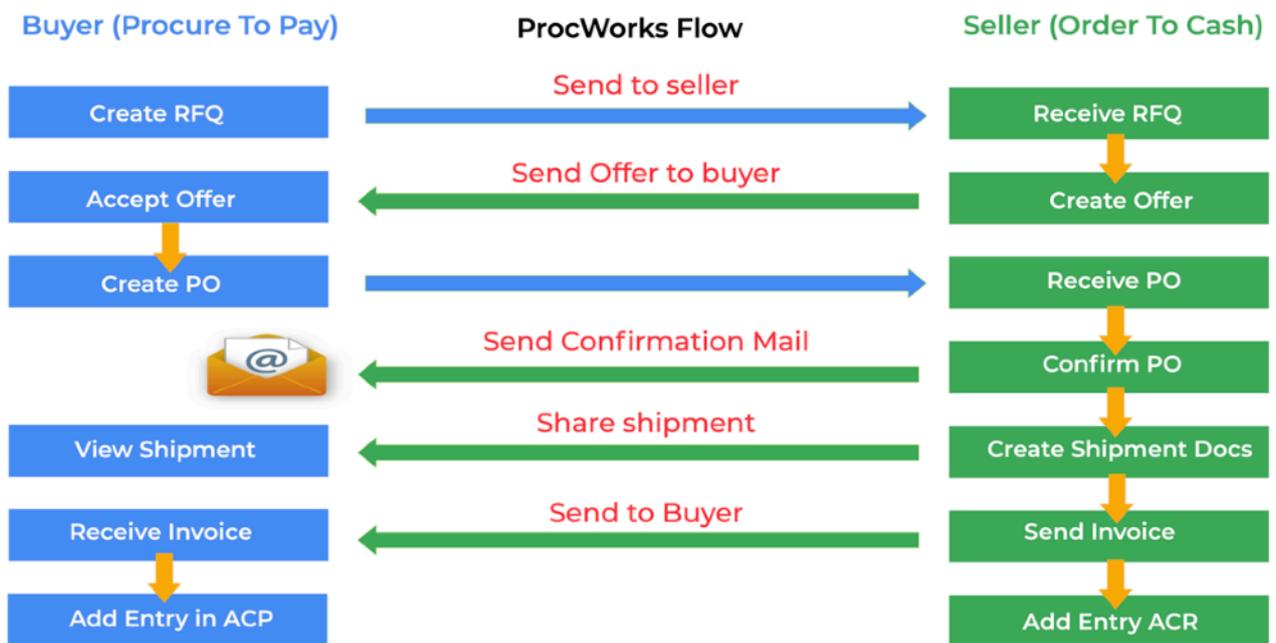
Through a user-friendly interface and subscription-based value pricing, the solution eliminates the need for expensive on-premise software as well as the cost and time-intensive implementation that goes with it. Companies can register and deploy project ProcWorks within their organizations literally within hours, at a fraction of the cost of existing options in the global market. Document-based applications on top of our Collabrr platform will work within the partner network platform.

Procure to Pay - Order to Cash - Workflow Management: All in One Place

We see that more and more applications (such as e-invoicing, the electronic waybill, procure-to-pay, supply chain work orders, or other document-driven processes) no longer take place separately for each company in their own back-office systems. Instead of the individual silos, we can move the logic to collaborative apps for multiple companies in the supply chain. In addition to a drastic cost reduction of these IT components, we now have the opportunity for new disruptive business processes.

We can conclude here that all these above-mentioned collaborative services can be very helpful to us on our journey to Industry 4.0. After all, only here do we really achieve the benefits of a digital transformation. At the end of the last century Peter Drucker predicted that the productivity of the knowledge workers in their supply chain tasks will at least double, and will directly improve the EBITDA of the industrial companies. Meaning that the market cap of industrial companies is on the eve of a significant improvement. As mentioned before, the data from these companies is becoming a new gold rush.

ProcWorks Flow



NewPort Tank Containers

Another compelling use case is Newport. NewPort Tank Containers is a leading global, bulk liquid, logistics platform, providing specialized tank container transport to both the chemical and food-grade sectors. Founded in 1995, the company aims to differentiate itself with high-quality equipment and excellent customer focus. NewPort consists of a

Challenges

- **Lack of competitive advantage;** customizations in the previous system led to investments in a 3rd party product, which is used by many competitors in the industry
- **Suboptimal decision making;** the original process was based on human intuition and manual input, while the system itself lacked automation and insights. This resulted in a non-standardized way of working
- **High cost of operation;** many manual tasks were causing a lot of overhead with double data entry, resulting in extra costs for manual labour and data error
- **Inaccurate data,** urging the need for better reporting of (financial) figures, while adding intelligence. Data-driven intelligence and optimizations are needed to continue the growth
- **A tailor-made solution** was required. NewPort operates in a niche market, so off-the-shelf replacement of a transport management system was not available
- **Unique way of working;** as NewPort highly focuses on operational excellence, the system should not be generic but fully aligned to their unique processes



Solutions

- Vanenburg digitized their complete transportation management process, by building a future-proof system that is tailored to NewPorts needs
- Developed from the ground up, delivering reduced licensing costs
- Used by 400+ users daily; one integrated core enterprise system for procurement, fleet management, sales, operations & finance
- Laying the foundation for advanced geofencing and tank monitoring capabilities
- User-friendly solution, simplifying complex jobs around quotes, delivery terms, vendors, routes, vessels, locations, lobs/activities, coastlines, documents, milestones, and billing
- Supporting the unique NewPort way of working door-to-door, port-to-port, and hybrid
- Integrated with NewPorts core systems like their ERP, accounting and route calculation software, a BI cockpit and their supply chain for vessel schedules
- Including Vanenburg UnDoc solution for digitization of invoice documents based on Google Doc AI technology

“We have been able to tremendously reduce the time spent by our sales and operations teams. For example, when building a quote for our customers, a lot of steps come in like selecting the right vendor, creating and selecting a route that is suitable for our customers, etc. With the help of Vanenburg, we have reduced the time from our sales and operations teams by more than 50%, compared to our old system.”

CEO, NewPort Tank Containers

team of 480 employees worldwide, across their 22 owned offices, and ships more than 100.000 tank containers per year. NewPort Tank Containers has a global presence and an annual revenue of over 400 million USD (2021). NewPort Tank Containers strives to maintain its position as a leading, global tank container operator. Potential use cases

They are a bulk liquid logistics platform that provides specialized tank container transport to the chemical and food-grade sectors. NewPort Tank Containers has a presence in North America, Europe, South America, Mediterranean, Middle East, Indian Sub-Continent, and Asian markets.

Vanenburg helps NewPort to stay an industry leader by creating a tailor-made transport management system (TMS) that is intelligent and future-proof; it integrates procurement, fleet management, sales, operations & finance. The new TMS enables NewPort to stand out from the competition instead of following them.

Vanenburg is currently using Eva to help NewPort Tanks achieve a similar platform shift by building an array of micro-apps for various functions like Mobile Device Management MDM, procurement, sales, operations, fleet management, and finance. Furthermore, NewPort gets access to the source code and the library of micro-apps.

- An application can consist of one or more modules
- Each module can be designed separately
- Each module can be mapped as a separate microservice

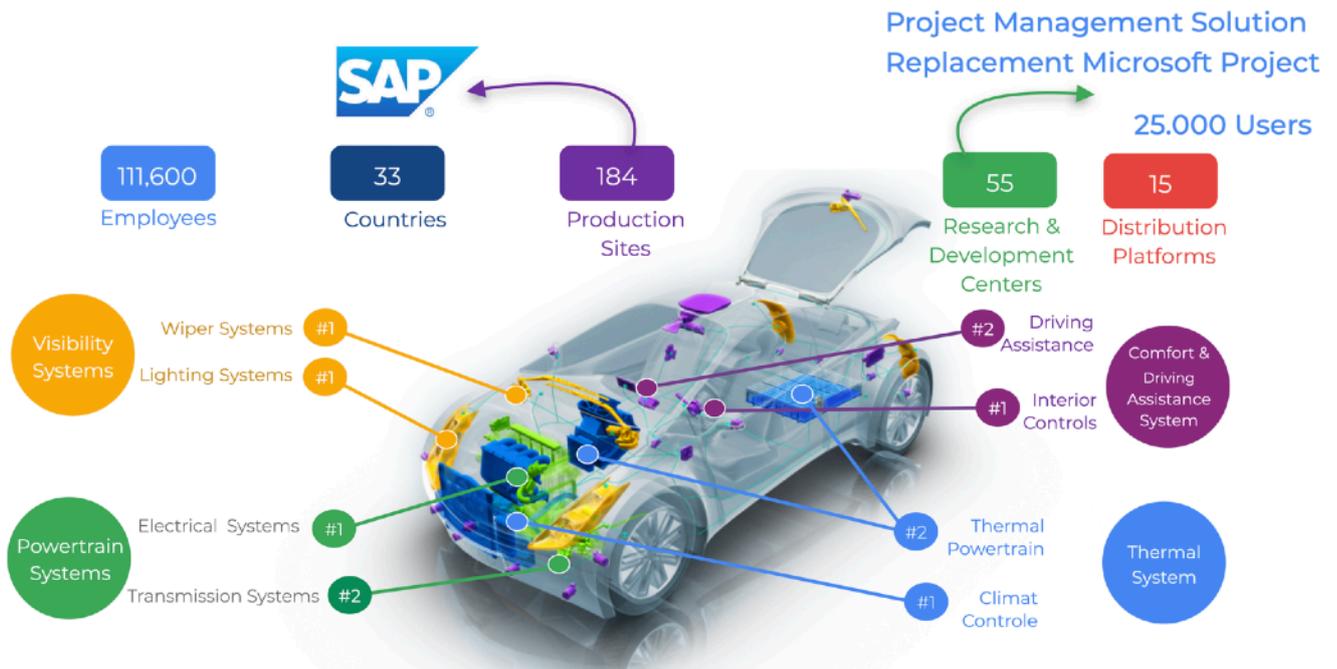
The Valeo story

A successful use case for Eva is the Valeo story. Valeo is a French global automobile supplier headquartered in France, operating in 33 countries with 19.1 billion Euros in revenue. Valeo has over 110,000 employees with 184 production plants, 55 R&D centers, and 15 distribution platforms.

Over 50 applications

Vanenburg has successfully built and implemented over 50 applications for Valeo. From smart machine learning capable micro-applications that help analyze over 1 million claims every year to several complex workflow apps that are crucial for executing the core processes involving vast volumes of data that are integrated from many back-end systems.

To put it in perspective, Valeo has 200 SAP systems that over 40,000 Valeo employees use every day. After implementing these applications, **Valeo has achieved savings of up to 50% on crucial business processes.** The solutions in Valeo have helped reduce costs and



have helped Valeo develop a better understanding of their business processes. All of which were built on Google Cloud. The solutions built with Eva are robust, effective, and, most importantly, always implemented on time.

Valeo has been using Lotus Notes for more than 10 years with 32,000 users, 6,000 applications and more than 250 servers. The table below shows which workflow solutions have been replaced by modern microservices.

Valeo was looking for an innovative way to reduce the office infrastructure costs while simultaneously improving user collaboration and productivity. Their main business challenges were:

Improve user collaboration and productivity on top of their new cloud office suite

- Replace Lotus Notes applications
- Make applications available anywhere anytime with a focus on mobile
- Make business processes less dependent on organizational changes
- Increase development efficiency

After a thorough evaluation of marketplace alternatives, Valeo decided to move to the cloud and deploy Google apps for Business to the company's entire office-based workforce. Valeo picked the Cordys process Factory (CPF) to add cloud-based Business process Management (BPM) and mobile capability to their Google apps and to integrate Google apps with their enterprise software.

Application	Description	# Users	Date live
Incident Management	This app provides provides full support for reporting, categorizing incidents and tracking the results.	4.000+	June 2010
Investment Authorization Request	The IAR app streamlines the entire expense management cycle, including expense reporting, submission and approval processes.	1.000+	Oct. 2013
Job apps	The Job app streamlines the process of creating a new Job Request for the Valeo Service Centers.	500+	June 2013
Litigation Management	The Litigation Management app manages internal purchase incidents in three different area's: Price discrepancies, debit notes and overdues.	100+	Nov. 2012
Variable Remuneration	Variable Remuneration optimize Valeo's incentive management processes.	100+	Dec. 2013
Annual appraisal	The Annual appraisal app helps Valeo managers and staff to complete their annual appraisals in line with the corporate HR requirements	40.000+	Nov. 2012
Mid Year Review	Extension of Annual appraisal to structure Mid Year Review interviews and track progress of Personal Development Plans	40.000+	June 2014
Contract approval	Authorization for contracts	1.000+	June 2015
Warranty	Handling of Warranty Claims	10.000+	Sept. 2017
Project apps	Scheduling - Time recording - Resource Management Managing 55 Research & Development Centers	25.000+	Okt 2019

Implementing the next big platform shift

Our experiences with Valeo Group in recent years within have a lot in common with the breakthrough of Baan Company in the mid-nineties of the last century. At the time, we had the Boeing Company as a market-maker, using Baan's ERP system, as one instance, for 40.000 users. Today, we see Valeo as our market-maker.

If you have the confidence of a world-class company and a leader and a line of business, you will get access to the core differentiators for their business.

We experienced this at Valeo. In my opinion, just like with Boeing, we have built several complex workflow apps for them, which are crucial for executing the core processes at Valeo involving huge volumes of data that are integrated from many back-end systems.

Using the latest developments in the open-source field and the many innovative components from the Google platform, we have made it possible to solve the scalability problem within a global group. We have several examples where more than 40,000 employees work together in the back-end by using over 200 SAP instances, which are connected within one app and achieve up to 80% savings in crucial business processes. Here is the response from Christophe Aubey, CIO, Valeo Group.



Here is the response of Valeo Group.

100% of projects are delivered **on time and on budget**

- ‘Vanenburg is a very reliable and the most important partner with us on GAE. We have a lot of trust in their ability to deliver the right software. The upfront cost is more, but quality comes with a cost - so we accept that. And what we appreciate in Vanenburg is their ability to understand the business needs and propose innovative solutions that are more than what we had asked for or mentioned in the specifications. This adds a lot of value to our business.’
- ‘Valeo choose Vanenburg because Digital Agencies do not understand our business, and big Six are too expensive and inflexible/not agile. understood both technology and business, including know-how about processes.
- Moreover, Jan Baan has developed an excellent team in Coimbatore over the course of 20-30 years.’

Partnering to manage business critical cloud applications

- App development
- App maintenance
- Operating Cloud landing Zone



- 26,500 employees in 61 countries
- Over €10 billion revenue in 2019
- Selected Vanenburg as global partner for all its Google Cloud Platform apps

*“The new Solvay cloud approach is triggering another way of looking at our Google Cloud Platform based applications, **we could not continue like we did**, it was just **build and created**, with **limited ownership**.”*

Li-Lian Tan,
DevOps and Cloud Applications Services
Manager, Solvay



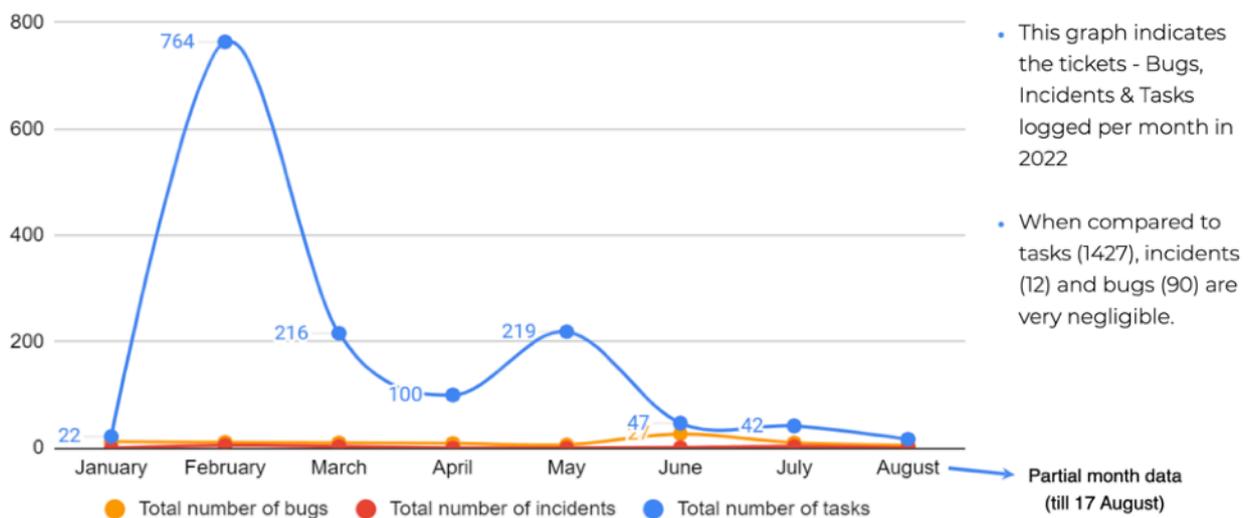
*“Within Solvay we have more than **100 business critical** applications developed on the Google Cloud Platform. Therefore, the utilization and management of our Cloud resources is very important for us. We have selected **Vanenburg as a strategic choice** because of their expertise, commitment to quality and agility in the Google service offering. We see this as a **true partnership from both sides** in which we can jointly build innovative solutions with quality and manage them in a professional way.”*

Li-Lian Tan

Highlight of activities

- Close collaboration with the Solvay Application Owner/Business Teams/End Users
- Seamless scaling up of team to handle the needs of the business teams (e.g. evolutions, new apps)
- Proactive approach to prevent the technical issues
- Close communication with stakeholders:
 - ✓ Emails
 - ✓ Chat
 - ✓ Weekly & Ad Hoc meetings
 - ✓ Project collaboration tools (JIRA)
 - ✓ Combination of all of these

Tickets logged per month by classification (January - August 2022)



Most tickets are tasks and enhancements. Number of bugs and incidents are very low

Some of the highlights

- Performance improvement, in some cases screen performance improved by a 60%.
- CCTS & GETS: When it was transferred to Vanenburg, the app was problematic. The app stabilized a month after it's transferred to us.
- EZBuy : SAP data sync logic optimized & Server cost reduced by 20%.
- TLC : After the VB team took control, 174 security cases were quickly resolved.

AI /ML projects highlands

1. Shipment document converter

- This solution extracts structured content from Solvay shipment documents using Document AI. The documents are processed and stored in SAP system automatically.

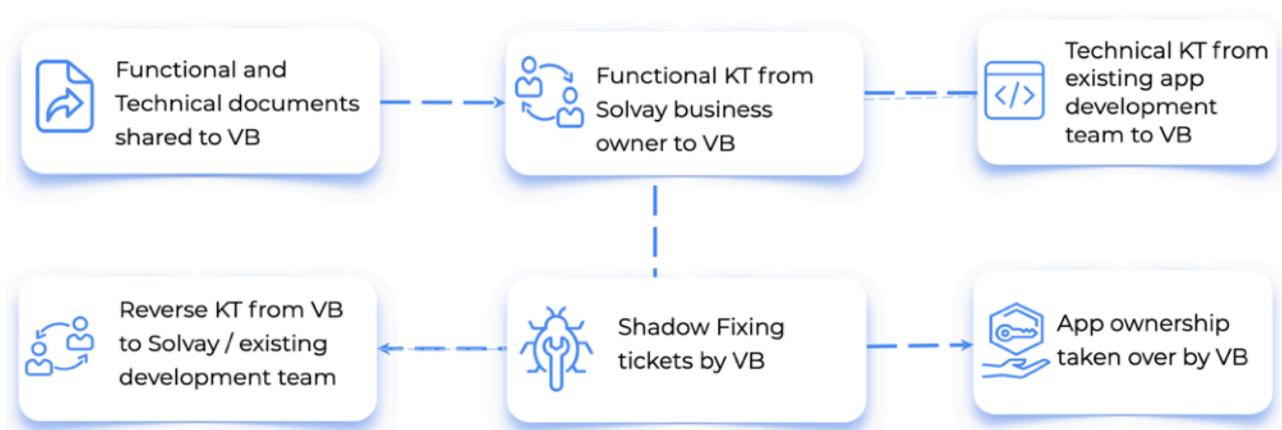
2. Italian hand written doc recognition - funded by Google

- The handwritten lab reports from Novacare Ag lab in Ospiate were scanned after the lab was closed. In-order to make the information searchable and available to all researchers, key information was extracted automatically and the documents were split and tagged based on individual studies.

3. Invoice Document Converter - funded by Google

- Solvay's current OCR solution is not efficient in processing invoice documents from countries like China, Japan, Korea, Thailand and India. An intelligent machine learning based document processing solution was delivered which extracts invoice entities with high accuracy.

Standardized app on-boarding procedure



We have a standard process for applications on-boarding

Dataiku webapp projects highlights

Dataiku webapps provide a way to create interactive visualizations that can be shared on dashboards for sophisticated reporting.

- Delivered the following Dataiku Web apps
 - ✓ Market Dynamics
 - ✓ Soda Ash - Order Pace Review
- Languages used:
 - ✓ HTML, CSS, Python
- Delivered screens attractive charts and maps, as well as a region selection option in Open Street Maps



Overview of services offered to Solvay

- GCP application maintenance
- GCP application development
- GCP CloudOps
- 24*7 production support
- Website development & maintenance (Drupal)
- AI/ML application development
- Data iku web app development
- AppSheet development



Some of the customer feedbacks

Dear Vanenburg team,

I would like to [thank you for all the good work you do!](#) We have worked together for 2 years now and since the beginning you were always a good team to work with. You are indeed a great team! always available to help, always willing to explain and go beyond the initial requests, always providing improvements. I feel that all my doubts and questions are valid, no stupid questions exist.

And this makes a really good partnership between Vanenburg and Solvay. I trust you and trust your knowledge. I know that nothing will be forgotten and that you pay attention to the details.

You are my favourite team to work with!!!!

[CCTS & GETS App Owner](#)

The team from Vanenburg, being [very detail oriented](#), brought everything together and [transformed our ideas into a reality](#).

They took the requirements and our best effort explanations that brought our simple spreadsheet design into a customer facing professional looking application that is easy to understand, easy to complete and easy to report against.

[App Product Owner](#)

4. My entrepreneurial journey in the high tech industry

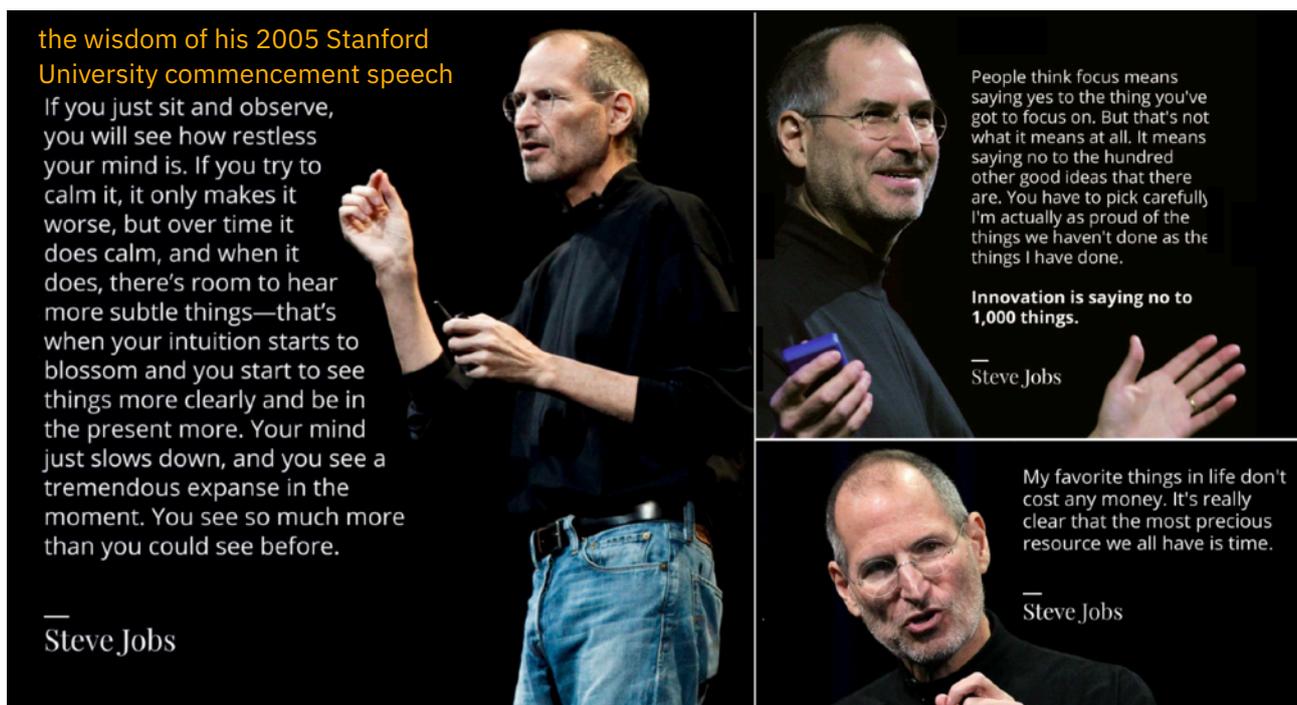
The serial entrepreneur

Steve Jobs - the icon in my business world

Steve Jobs is one of the few personalities who have had the opportunity and time to create disruptive innovations repeatedly. I find his story fascinating and want to dedicate this part of my book to him and his story while drawing some similarities and conclusions between his and my business life experiences.

While he and Steve Wozniak founded Apple Inc., the decision was made when the company's first president, Mike Markkula, retired that the company needed a different person than one of the founders in the top seat. Steve lacked the discipline and interest to run the company daily, and John Sculley, a top marketer and President at Pepsi, was selected as the new CEO of Apple.

In the beginning, this turned out to be working well until the sale of the Apple Macintosh began to decline. Under this pressure, the relationship between the Steve and Sculley deteriorated, and a long power struggle with the board and Sculley ensued, resulting in Steve leaving Apple in 1985. Shortly after his departure, he and a few former Apple employees founded their new company, NeXT Inc. As a true visionary, this alone was not enough for Steve, and he immersed himself in the position of the knowledge worker. As usual and always thinking about innovation, he set a different course for the company. He didn't ask customers about what's next but stuck to the thought behind a quote of Wayne



Gretzky that he loved: 'I skate to where the puck is going to be, not where it has been.' Which resulted again in a new disruptive concept: the iPhone. He came back like a Phoenix rising from the ashes and managed to connect three generations of technology waves through this. Something that never had been achieved before.

A casual visit makes Steve Jobs an innovative game-changer

The visit Steve reluctantly made to Xerox turned out to be a game-changer for the vision of the innovative future of Steve Jobs. It is not all that uncommon that unexpected visits or meetings create a new dimension in innovative thinking. However, it is important to absorb this new experience quickly and take time thinking it over before using it as a new road to the future.

The Xerox experience made him realize that the future was about further simplifying the product, and he saw that the user interface and the mouse were good tools for this. He further thought about the overall change of the computer itself from a piece of equipment that people needed to learn to something that people wanted to use. To achieve this, he knew he didn't need the kind of people that had invented the new ideas at Xerox, but he needed thinkers that were doers. People that could see the possibility and who were willing to do the deep thinking to get to a solution and would do the hard work to create the computer for everyone.

My first visit to Silicon Valley in 1982

I see a lot in this respect with what I have experienced in my entrepreneurial journey, especially the people's side, which many still call the Baan culture. It turned out that, in retrospect, my relationship with Durango was crucial to our innovation and that my first visit to Silicon Valley in 1982 laid the foundation for it. For us, it was also about what we could achieve with the new generation of microcomputers to improve the business. We didn't build computers as Steve did, we built software, which also needed a drastic change to make it an ERP system for everyone. The Durango computer at the time was much more powerful than the Macintosh in terms of business applications and was a better fit for us. It laid the Baan Company's foundation and gave us control over relational data, and positioned us as the first users of the Unix operating system.

I met with the founders of Durango, who started this company after selling Diablo systems, a daisy-wheel printer manufacturer, to Xerox. The three of them envisioned a business microcomputer system based on new microprocessor technology, and with Intel's VP Bill Davidow on their board, they had an inside track. Investors (the early VC's those days) were Kleiner Perkins, Citicorp VC, and Sutter Hill Venture.

Their goal was different from Apple's, where they had a multi-user system in mind that was

capable of running the same applications as the larger systems. The Durango F85 ran on their DX-85M operating system as one of the first adopters of the UNIX OS.

Durango was located back in those days on North First Street in San Jose, after starting across the street from Apple on Bubb Road in Cupertino. Just as Apple, it was also using Intel technology, but it had multi-tasking and multi-user capabilities. Durango was one of the first computer builders to switch to Unix in 1981, where Apple followed Bill Gates with MS-DOS. However, at Baan, the Unix operating system gave us the advantage we needed for business software and allowed us to become one of the first developers of the 3-tier architecture in the world. We were able to deploy the three tiers independently in a network, on different computers, collaboratively. See the construction of our unique Baan-Shell on Unix in part one, paragraph 1.2.

Sometimes it takes years to realize how influential a meeting can be. In 1982 we only had a very small software company in Barneveld and no reason whatsoever to have a global vision, but I had the opportunity to visit the Durango factory. During that visit, I could hardly make myself understood in English. I was nevertheless determined and driven to make something of it. After our first visit, I tried to explain in broken English how our business software could contribute to his latest generation of microcomputers during a dinner at a Chinese restaurant with the founder George Comstock¹ and his team. We clearly connected and were invited to Comstock's bungalow on the Hill, the next day. As an entrepreneur, you take every opportunity and try to turn every unexpected and promising encounter into something worthwhile. Indeed, perseverance is crucial.

In retrospect, I wonder why we got this special attention from George Comstock and his team at the time. Especially with everything still in its infancy while we were working fanatically on serious software programs on the older Durango computer. These programs have already formed a basic solution for the complex production control process and could be executed on these microcomputers. In the early '80s, we had sold some 40 systems in the Dutch market. That doesn't sound like much, but it was about half of all Durangos sold in Europe. In the Netherlands, we were already a dominant system house, next to Minihouse, because after all, hardly anyone supplied COTS (Commercial-Of-The-Shelf) solutions at the time. Due to the large margin on the hardware of more than 50%, we could absorb the first investments for the software.

That's why Durango's CEO George Comstock took us seriously back in 1982. We were briefed on their future product, where Durango, now with the Unix operating system, really

¹ <https://www.almanacnews.com/news/2019/03/25/george-comstock-silicon-valley-pioneer-and-portola-valley-civic-leader-dies>

became a business computer and an alternative to the proprietary Minicomputer (such as DEC and HP). With this Durango multi-tasking microcomputer, we could initially already serve five users simultaneously, and we went on to twelve simultaneous users, but with more than 20 times larger data storage for the relational database. The increase in internal memory allowed us to expand our software library significantly and build much more complex programs.

Agreements in building top teams

Our relationship with Datamatics was centered around their ability to provide affordable and skilled development talent. The people we worked with were very capable, but little attention was paid to their individual talent back in those days. They were often used as cash cows to build custom projects for companies overseas. As I was personally involved in the relationship and regularly visited the offices of Datamatics, I knew many of their people. Based on my gut feeling, insight into their performance, and further direct personal contact over dinner, I was able to attract some of their best engineers. Names that come to mind are Ashok Sand, Subramanian Ramanathan, Darayus Bharucha, Sang Gad, Mukesh Desai and Girish Naik. I soon had them come to the Netherlands and introduced them to our culture and our products.

When I look at their LinkedIn profiles today, I see that now, about 30 years later, they all have had successful careers. Ramanathan, in particular, impressed me with his talents to prepare new young leaders. He turned out to be very strong, especially on the human side, with a good understanding of the technology. He successfully executed my ideas, and in our regular discussions, he had a perfect understanding of my drive for change while he also had a special skill to correct and steer me. Because of his approach, partnerships were started with universities to attract young talent directly at campuses. We were inundated with applications from graduates. It was customary to select a dozen new employees from over 1,000 applicants. After that, we had a solid internal training plan ready for them from the start. From these young talents, new leaders would soon emerge.

So unlike Steve Jobs, who always attracted top talent from outside his organization, we had the time to take care of new leadership internally. A good example was the young and talented graduate Agalya Kitherian. Agalya has played an important continuous factor for me. As it turned out, she not only found a career, she also found love at Baan, where she and her husband Saji Antony were one of the first Baan marriages. Saji is another example of somebody who built a strong career starting at the Baan Company. Several testimonies can be found in chapter 9 'Crossing the chasm'. The comments from Ramanathan, Agalya, Saji, and Vinodh, in particular, underpin our vision concerning developing software in a factory, such as generic Intellectual Property, as well as the importance of our all-inclusive culture.

What drove me as an entrepreneur?

As an entrepreneur, I've always tried to translate a vision (dream) into a product. I was often convinced this would benefit the business operations of my customers while also serving a social purpose. I often worked on IT innovations that did not exist before, which, as it turned out, meant that while we were ahead of the rest of the field, we were often also ahead of our time.

The basis for many of my dreams were not ideas of my own, but rather a collection of innovative components, most often obtained from my own R&D team, as well as discoveries I made during my many international visits. By bundling these innovative concepts and projecting them onto the existing business processes of my customers, it became apparent that new products were needed. As an optimist (more than a realist) I tried to steer my team aggressively to realize these innovations and forgo any structured Return on Investment (ROI) model reviews. As an entrepreneur, starting as one of the majority shareholders, I had enough authority and tools to free up time and resources to do this. Innovative processes, with all the associated uncertainties, had absolute priority over profit maximization.

Despite my authority, I used a different approach with my R&D team to circumvent the tenacity of the smart but often introverted and sometimes 'slightly autistic' research employees, to avoid bottlenecks in the R&D processes. Improvements and innovations came from experts in our own team and through the participation of external scientists. These individuals had an opposite profile compared to my role as an entrepreneur.

Scientific thinking often goes hand in hand with a mind that dangles on the autistic spectrum, which stimulates a working method to delve into original and innovative concepts with the deepest concentration. The technician does not feel hindered by how existing products work or business models function. The components for an innovative, disruptive method must be decoupled from the existing reality right from the beginning. Although the idea of putting external scientists in a team with my own employees was not bad and resulted in great ideas, there was, however, little willingness to collaborate. The goals of commercial-focused R&D employees and scientists differ and cause problems known as 'the perfect is the enemy of the good.'

To implement composition of ideas like these, we are much better served when using the 'good enough' principle, and working on a Minimal Viable Product (MVP) that can be presented quickly.

The development of this dream, of which I often had only a vague idea of what it could mean for our business, took me quite a lot of time. As an entrepreneur, however, you can

have plenty of time when you can delegate the operational activities to your management team, which I fortunately could do.

But at a certain point, this ongoing innovation will no longer progress, and a new technology wave will come into view. Like Steve Jobs, at one point, I was disconnected from my existing company. Without the daily responsibilities of owning or running a business, I suddenly had an empty agenda and all the time in the world. I say it easily now, but those moments have been quite a difficult time for me, and I went through two of them. The first time voluntarily, after I retired from Baan Company, in summer 1998, and then some 15 years later, after I lost control as a majority shareholder of Cordys.

The sudden change, combined with the empty agenda, doesn't leave a lot more to do than brood and think about what's next. To do this, one first needs to list all the components and lay a foundation for future innovations. Writing new chapters for my autobiography has helped me overcome this. I have experienced these two periods as the toughest in my business life. It has been a lonely and sometimes difficult process for months, but both times have turned out to be very useful and allowed me to engage in a new technology wave again.

An entrepreneur is often infected with a narcissistic streak combined with a feeling of being superior. It is a trait that helps the entrepreneur to recover from setbacks, and when used together with charisma and enthusiasm, it translates into inertia for new ideas, innovations, solutions, and the ability to convince both supporters and prospects.

In his books 'Built to Last' and 'Good to Great', Collins points out that success can only be achieved by people who have a strong sense of ego. I think this superior feeling occurs in both types mentioned (the innovative developer and the entrepreneur), which makes the process of innovation even more complex, at least in my experience. Collins points out to control egocentric feelings and limit this to the benefit of the institution instead of the pathetic self-gratification of your own person. I think this willingness has helped us build a still unique corporate culture at Baan Company in the past, where mutual awards have added an extra dimension to past achievements.

While the past few pages have been about persuading overconfident bosses and colleagues, it is also about innovation. It is pushing boundaries and finding ways to get others on board. Therefore, it is always important to remember the late Peter Drucker's quote: 'you cannot solve tomorrow's problems by acting on yesterday's logic.' Or how Steve Jobs used Wayne Gretzky's quote from the hockey game: 'I skate to where the puck is going to be, not to where it has been.'

My motivation as an entrepreneur was implementing my dreams, which I often saw before me and then worked hard to accomplish. Working is a motivating activity and much nicer than the brooding process, which unfortunately must take place before the fulfillment of your dreams starts.

If I possibly can hand over these dreams, confident that in the face of all uncertainties, I always feel dependent on God's blessing of my work, it results in a relaxed way of working. Ultimately, this has turned my daily prayer request for the blessing of all the work done to 'Give us this day our daily bread,' covering the entire supply chain.

'Rest' is that phase in the business activities which always was the best experience. Like every entrepreneur, I often had to work extra hard, which gave me daily satisfaction and the ability to sleep peacefully at night. Thanks to good corporate culture, we have been able to execute well-thought-out plans, which allows us to give our best every day and the joy in serving our society as well.

Disruptive innovative and leadership style

In chapter 4 of part 2 of my autobiography (Things are coming together in Cordys), I describe our innovative leadership by building our business operating platform. After our experiences in complex ERP transactional systems, my second startup company had all the components to build a superior product again. The sale of the Baan shares made this possible, and first experiences and money were no longer a constraint. Due to my contribution to the Baan culture, I believed that many key engineers were again willing to follow me in full trust in this new journey. All the key parameters for building a superior product were in place, and we decided to move ahead.

We built the new second wave of internet-driven business process management, which Gartner called the 'systems of differentiation'. But like Steve in his second technology wave, we also failed in sales and operations.

Once we ran out of funds and were dependent on our VC (Argonaut) to continue, Art Landro, as the CEO, just like Sculley at Apple, had the confidence of the board and the VC, and I lost the fight here. Unlike at the Baan Company, the initiative for my resignation came from the board, and I was sidelined. It was quite a strange situation to be in, where the CEO and some executives no longer supported me and thought it was safer to support the VC. A similar feeling must have come over Steve Jobs when he was pushed out of Apple.

However, the time of isolation that followed has further shaped me and prepared me for my next phase. The title of this book (Profit by Loss) originated from this period. A happy period in retrospect, especially when it comes to further developing a vision for software in

the digital world. It would have been great if we could have merged our disruptive skunk works innovations over time with Baan, just as Steve did with NeXT and Apple. Unfortunately, it was not in the cards because of the clumsy course of action by the Baan board and the executives during the M&A deal with Invensys.

Where the large global system integrators could deploy an army of consultants on projects of these (in my opinion) bad complex products and generate massive sales revenue, it is hard to lure them away to something new and unproven. Even though our product was better, and over time could have replaced their existing revenue model.

It was simply too early to talk about disruptive innovations such as cloud at that time. History repeats itself today while everyone talks about machine learning and Edge computing, and the SAP and Oracle ecosystems keep their customers shielded and protected, leaving them nowhere to go and the CIOs afraid of making changes. In essence, the same applies to the Microsoft Dynamics platform, where even less functionality is offered for the complex ERP solutions. Combining their Dynamics solutions with the existing Office products and an outdated SharePoint collaborative platform is more restricted and not much different from the old legacy systems.

The vendor lock-in situation is the biggest problem in today's new open-source offerings. We've seen tremendous improvements in the new production of microservices, which can improve the productivity of the knowledge workers but reduce the time (and cost) often by 90% for software developers.

[Avoid becoming arrogant with your best market product](#)

Steve's analysis of the impoverishment in IBM product development confirms my own experience with IBM's PC. Personally, I thought the product was a drama at the time, as I was more used to the Durango microcomputer. I fully agree with Steve's analysis, but that does not mean that you will beat the legacy monopoly-driven players with your best product.

At Baan Company I experienced the privilege of building a top product with my own money. While our software was far ahead of the existing players in the market because of the innovative software development techniques we used and our relationship with Durango, we needed to keep a sharp eye on the competition.

They recognized our innovative drive and approach to building superior products that were rewarded with attractive OEM contracts. Thanks to these OEM contracts and revenue, we maintained 100% control of the company for a long time. The growing demand and our inexperience to scale operations and sales at that level required us to take on Venture

Capital money. The investment by one of the world's top Venture Capital firms, General Atlantic Partners, provided a substantial infusion of capital, as well as access to experienced executives to help us scale the business.

Just as Steve Jobs underestimated that many other people had a very strong vested interest in helping big players with their terrible products, we at Cordys made that same mistake when we underestimated the power of the players like Oracle and SAP with their complex legacy systems. At the beginning of this century, our BPM platform received a top ranking by the analyst community with the advice to integrate those legacy systems into the 'end-to-end' business processes for OpEx (Operational Excellence). But these huge legacy ECO systems, from the IT giants, have been growing into yearly revenues of hundreds of billions of dollars, supported by more than one million people who had some vested interest in their success.

Often the leadership doesn't understand the gems the R&D teams are creating. Unfortunately, I missed those signals as well until it was too late. While I focused on our R&D efforts and worked intensively with our team in India - which I visited at least four times a year to review their progress and challenge them to push further beyond their current technological horizons - things started to change.

Like Tinsley, Art Landro (Cordys CEO) never saw our product, nor did he ever visit our software factory in India, let alone understand the software development process. Art Landro focused on building the pipeline and a strong sales culture, with EBITDA underwater and burning through our cash by arranging big marketing campaigns before the product was ready to scale.

Possibly because of my somewhat restless nature, I regularly looked to visit often faraway places and left the running of the business to others. Most of these visits were for no immediate reason but afterwards turned out well timed and resulted in other great opportunities. By leaving people in charge, things often go much better and allows them to develop quicker and independently, as long as you hold them accountable.

Another similarity to Steve Jobs experience is working with smart people who have experience from different professions. Our instrument for that was the BBITS (Baan Business IT School), a melting pot of intellectual people with different nationalities, cultures, and business backgrounds that transformed into a group of collaborative professionals who could explain an extensive business process to our customers with the underlying technology.

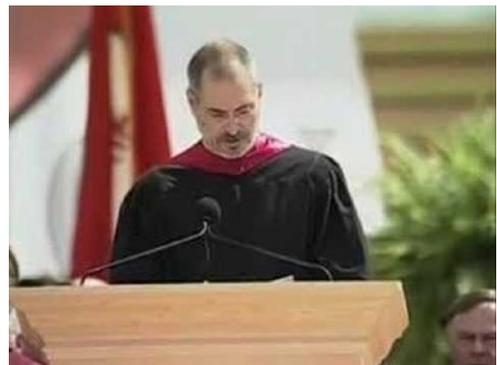
Passion

Now that we have a solid foundation as Vanenburg, we can consider ourselves to be in the third wave and have, similar to Steve, a vision to improve the knowledge worker's productivity. Think about the example of a human on a bike. We have both made products to improve the workflow tasks of the knowledge worker. Steve offered powerful devices based on his experiences at NeXT and made Apple products the best devices for performing an employee's tasks. I call this the consumerization of services. What Steve or actually Apple still lacks is having access to the core business data of the business processes. With Cordys, I was able to deliver a breakthrough, and again, today, these experiences can be tremendously improved with big data. For the first time, we can bring the data from the old legacy systems to the level of useful information by integrating all these application silos into an 'end-to-end' business process.

Speech 2005 to graduation class Stanford University

<https://news.stanford.edu/2005/06/14/jobs-061505/>

- Summerized: Always focus on the Positive & let go of the Negative. ...
- Travel the world and learn new things. ...
- Always take a calculated risk. ...
- Be wise in the company you choose to keep. ...
- Learn from the failures and keep moving forward. ...
- Do only what you truly love. ...
- Learn from others. ...
- It is never too early to get started. ...
- Obstacles are the opportunity to succeed. ...
- Always remember you are not immortal. ...



The engineer selection process

That's what we did differently in Baan, especially in India, in our recruiting process. Given our reputation in India and our image as an IT-Product company, we always have been lucky to have a high number of job applicants, which allowed us to pick the very best during a process that was probably taking longer than normal. We involved many of our employees in the selection process and valued everyone's input. Once onboard, we would guide these young graduates into our business and connected them with senior IT engineers, teaching them all their knowledge and experience. At the same time, we gave those youngsters all the freedom to develop smart ideas or build smart components. The selection process is about a person's behavior, and of course, people's intelligence and willingness to learn while working on interesting projects.

Steve's recruiting and hiring process was a bit too extreme for me, but we were not Apple either. Personally, I don't like the aggressive hiring process where head-hunters poach the

best people from the competition. You will end up with a group of the most talented individuals. It was always important to hire the people for the best possible team, instead of the best individuals.

Think about the story of the old man with the rock tumbler who showed him how rough rocks became smooth and polished. Through the process of becoming a team, more respect will be developed. It allows for a faster transition of knowledge from the experienced top players to the other, often younger team members.

The slogan 'perfect is the enemy of the good' also applies here. Steve was a perfectionist and needed that kind of work atmosphere. We were looking for the best feasible product, which was innovative and available for our customers more quickly. Other than that, there are many similarities between Steve Jobs' experiences and mine, albeit on a much smaller scale, of course, but many of our business instincts are similar to each other.

How do you learn to run a company?

Steve Jobs: 'Throughout the years in business I found something which I always ask why you do things. The answers you invariably get are 'oh, that's just the way it's done'.

Or: 'nobody knows why they do what they do' and 'nobody thinks about things very deeply in business'. I give you an example: when we were building our Apple 1, in the garage we knew exactly what they cost. When we got into a factory at Apple in those days, accounting had this notion of a standard cost, where you would - kind of - set a standard cost and then at the end of the quarter you would adjust it with a variance. I kept asking why we did this, and the answer was 'it is just the way it's done'. After about six months of digging into this, what I realized was the reason you do it is because you don't really have enough controls to know how much it costs, so you guess and then you fix your guess at the end of the quarter.

The reason you don't know how much it cost is because your information systems are not good enough, but nobody said it that way. So, later on when we designed this automated factory for Macintosh, we were able to get rid of a lot of these antiquated concepts and know exactly what something cost to the second. So, in business a lot of things - I call it folklore - are done because they were done so yesterday and the day before. What that means is, if you're willing to ask a lot of questions, think about things and work really hard, you can learn business pretty fast. You learn it - that's not the hardest thing in the world, not rocket science.'

Because I started very young and as a high-school dropout, I was totally inexperienced and had to copy a lot from others. Only when I went through the simple business processes by doing them myself, I was able to tackle things much more inventively because I was not hindered by an existing method. Back then, it was my drive to improve things constantly.

When, after 16 years of experience in the administrative and financial world, I started my own company at the age of 32, I was able to do all the financial reporting myself for years and hired engineers who could build my designs into products. I have always (and for a long time) been able to do the first demonstrations myself. I was also able to explain my company to banks and the CFO of my clients.

Because I built Baan from the ground up and had filled several different roles, I was often improving processes and or relationships. However, there will come a time when you hit a critical point, and you need to gather people around you who bring an economy of scale to the business. These people will fill the roles you don't want to do or cannot do, but you trust them to make it successful. Of course, with accountability back to the management team. This worked well in our first few years but became completely different once the venture capitalists came on board, and a new level of learning how to run a business started.

What is it like to get rich?

Steve: 'It's very interesting I was worth about over \$1 million when I was 23, and over \$10 million when I was 24, and over \$100 million when I was 25, And you know, it wasn't that important, because I never did it for the money. I think money is a wonderful thing because it enables you to do things. It enables you to invest in ideas that don't have a short-term payback. At that time in my life, it was not the most important thing. The most important thing was the company, the people, the products we were making, and what we were going to enable people to do with these products. So, I didn't think about the money a great deal. I never sold any stock. I just believed that the company would do very well over the long term.'

The extreme value of Apple with its \$2,000 billion market cap eventually only belongs to a few who can call themselves multi-billionaire, ranked in the Fortune list as the world's most wealthy persons. The question then is whether this really brings happiness. But where is the basis of my happiness? In addition to the many disappointments, I have been able to enjoy a lot in my life. As I glance into the uncertain future as I grow older, there are moments of greater expectation. For me, there is more than just the fun and enjoyment in this life. There comes a time for all of us when our lives come to an end.

In the small town of Rijssen, where I was born, you heard regularly: Have you heard it yet? John or Peter is no longer. He has left this world. Is everything over then ...? No, for me, it isn't. I expect that real happiness will come without disappointments. Then it is not a farewell to life, but a move to the homeland, based on the merits of my Savior, Jesus Christ.

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The internet is the computer and data is tomorrow's gold

Contributing tools for the knowledge worker (citizen user)

Steve Jobs started with a tool for the knowledge worker, the PC. Later, outside of Apple, he saw three new disruptive initiatives at Xerox:

1. The graphical user interface.
2. The integration of simple PCs into a network, back then with more than 100 users.
3. The possibilities of object-oriented programming.

He was able to use this, after he left Apple, in his new company NeXT Inc. Just as me when I brought my Baan experiences with me to Cordys, and later to Vanenburg, Steve also struggled to make NeXT big because Hewlett Packard was many times bigger and more dominant in that market. After NeXT ran its course and was acquired by Apple, he was able to make a switch for the third time. For me, my first two technology waves are somewhat similar.

After Baan Company, as a leading ERP player in the market, I burned all my ships behind me and took my experiences and a small core team to build a new business. I was using new technology, also a bit ahead of its time. Cordys was ranked as the best in the market by leading analyst firms like Gartner, Forrester, and IDC, just as Steve was with NeXT Inc. Unfortunately, as he described with IBM, we met a similar fate in our market with Oracle and SAP.

Entrepreneur in three technology waves

Steve Jobs spent his business life in 3 technology waves by building computers and devices for the knowledge worker.

1. The first wave was the invention of the PC.
2. The second wave was the production of powerful workstations (NeXT computer) and laying the foundation of a software application framework (WebObjects) for the Internet.
3. The third wave was turning the mobile into a computer.

The second wave was a breaking point in Steve's career and has, as it were, torn him away from Apple. These particularly painful experiences prevented him from resting on his laurels too soon as a top hero in the computer industry. But in retrospect, if this had not happened, Apple would not have been able to go through its extreme innovations.

With his immense experiences, Steve was given plenty of time to reflect in between his ventures, or as he called it, a time to brood. With suddenly plenty of time at his hands, allowed him to think deeply without being interrupted by daily business activities, as well

as an uncertain future ahead without the comforts of the past, it was time to come up with something new. So, Steve had time to experiment with the techniques from the highlights of Apple's products in the mid-1980s, while his enormous frustrations, coupled with his ego, fueled his work ethic like dynamite. Particularly now that he was disconnected from Apple and no longer connected to the legacy, Steve was able to start over again, with no delivery commitments to existing customers.

At NeXT, he was able to further work on what he had seen during that unforgettable Xerox visit (which caused a mind change for him at the time) with new innovative attempts. It resulted in the powerful NeXT workstation, specifically designed for Higher Education and Business users. Previously at Apple, his focus had been primarily on the graphical user interface, which he had seen at Xerox. Now at NeXT, he had every opportunity to further develop the possibilities of object-oriented programming, especially since he now had the availability of these powerful NeXT workstations. But in the meantime, we got one of the world's biggest changes happening.

The birth of the Internet

English scientist Sir Timothy Berners-Lee invented the World Wide Web in 1989. He wrote the first web browser in 1990 while employed at CERN near Geneva, Switzerland. The browser was released outside CERN to other research institutions starting in January 1991 and then to the general public in August 1991. The Web began to enter everyday use in 1993-94 when websites for general use became available. The World Wide Web has been central to the development of the information age and is the primary tool billions of people use to interact on the internet. The link between the NeXT computer and the Internet seems to have been that Tim Berners Lee wrote his first web browser on a NeXT computer (in 1991).

Now everything came together for Steve. In his new startup, he had to deal with the Internet as a new technology wave. NeXT's powerful workstations had proven to be a tool for the Internet, with the NeXTSTEP platform as a UNIX-based object-oriented, multitasking operating system. Mainly due to the high price of the NeXT computers, success was limited to a sale of about 50,000 units, and the decision was made to exit the hardware business in 1993. A 10 million dollar partnership investment by Sun Microsystems helped them to transition NeXTSTEP to OPENSTEP, which became their primary Operating System for non-NeXT computer systems (OEMs). OPENSTEP became an important part of Apple Computer after the purchase of NeXT Software in 1997. The current Mac operating system was developed between 1997 and 2001 by combining the NeXT technologies with the classic Mac OS, resulting in Mac OS X. It brought an entirely new architecture based on NeXTSTEP, a Unix system that eliminated many of the technical challenges that the classic Mac OS faced. The current macOS is preinstalled with every

Mac and is updated annually. It is the basis of Apple's current system software for its other devices – iOS, iPadOS and watchOS.

NeXT also developed WebObjects, one of the first enterprise web application frameworks, and was a further reason for NeXT to transition into a software company. WebObjects was a Java web application server and a server-based web application framework. WebObjects never became very popular because of its initial high price of \$50,000, but it remains a prominent example of an early webserver, based on dynamic page generation rather than on static content. Truly an Internet software contribution from Steve Jobs and NeXT.



Recognition in my own experiences

I recognize a lot of my own experiences in Steve's second wave with my own startup Cordys, after the success of the Baan Company. For me, this has not brought what I expected from it financially. But it did help to break free from my success with the Baan Company in the first technology wave. At the end of my second wave, I also had the time to brood and think about something completely new and was able to find a third technology wave to ride with Vanenburg.

In my case, the three waves are all related to data-systems.

1. My first wave was the ERP systems' invention on relational databases, as systems of Record.

2. My second wave was using the internet browser and connecting the dots for B.P.M. in the cloud as ‘end-to-end’ business processes in a Business Operating Platform, as ‘systems of differentiation.’
3. My third wave uses the strengths of the consumerization of the Internet components, like Mobile, big data, machine learning and IoT.

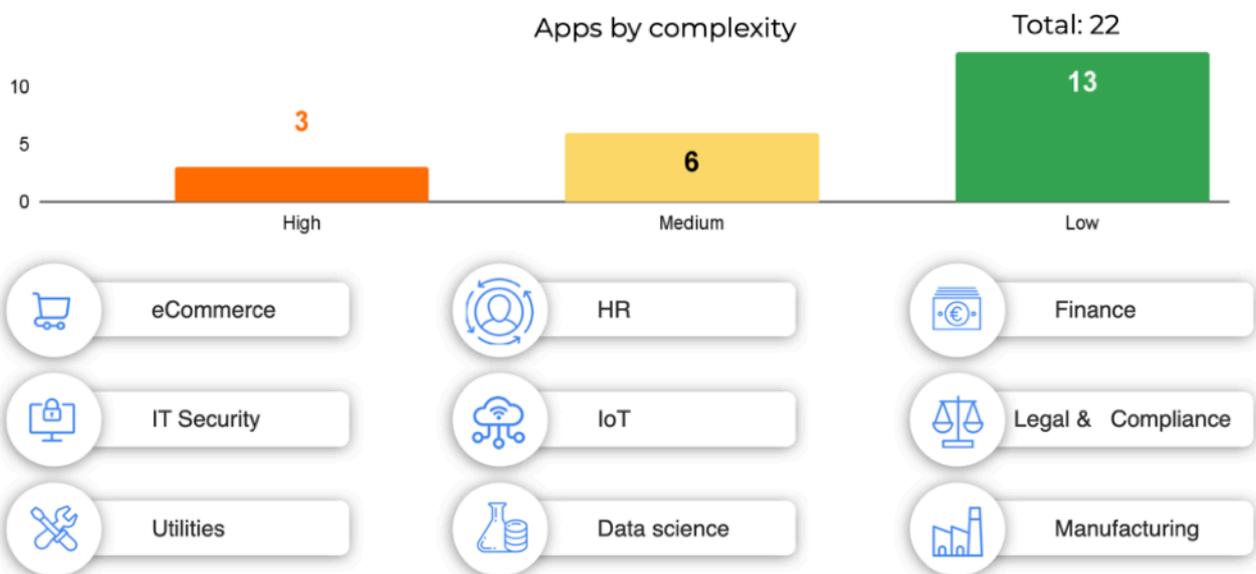
It is in this third wave where our ambitions unite.

My lessons learned, which can be found in the final parts of this autobiography, and through the many interviews with Steve on YouTube, imparted a lot of interesting thoughts, quotes, and comments which I like to share first and use as a comparison between him and me, from a business perspective.

Steve Jobs concluded that the invention with the greatest impact ever was the (personal) computer as a tool for the knowledge worker. This vision was based on the story of the Condor which he learned about in his youth. Studies have shown that this bird had the best conversion factor between weight and speed. The study also showed that a man on a bicycle had a much more effective factor through the effective use of a tool. Steve saw the Microcomputer as a tool to improve the productivity of the knowledge worker. Although the microcomputer has turned out to be a great tool for the knowledge worker, this picture, in my opinion, has become outdated. Thanks to all the technology innovations in the past decade, the internet has now taken over the function of the computer. The computer is now the internet.

As a result, the constraints to the accessibility of the data have been resolved by the cloud. In addition, as an extra dimension, we have big data, with which we have semantic access

Solvay Maintenance Apps by complexity | Infographics



to flows of data, which are now seen as the gold for the world of tomorrow. So, my slogan at the time: 'Data is the key for information' continues to become even more powerful. Nowadays, we can say: 'data becomes the key for wisdom, to improve the productivity of the knowledge workers to execute their tasks in a much better way.' And here, 40+ years of experience as a technology entrepreneur will be passed on to my successors in a third technology wave: 'systems of innovation.'

Why didn't Apple build an ERP system?

Steve Jobs said he visited 80 automated factories in Japan and built the world's first automated computer factory in the world in California, based on the Japanese Kanban & Lean principles. An example of 'eat your own dog food,' where you use your own latest technologies to gain a firsthand user experience. Steve, in particular, had unique experiences available with his new products and copied his experiences from Xerox PARC, where he was one of the first to build an in-house object-oriented production system at NeXT.

I have already mentioned that due to the influence of the internet Steve started to focus on Next with his object-oriented product, WebObjects. NeXT became a software company and became a prominent example of a web server based on dynamic page generation rather than static content. The same development that we have experienced in Collabrr to build dynamic workflow solutions for knowledge workers. Ultimately, this is the basis for a digital enterprise. After all, digital is more than a static PDF document.

I would have thought that after Apple's acquisition of NeXT, and with Steve back at the helm, he would make good use of his past experiences and from his 80 visits to the lean, kaizen-driven factories in Japan while realizing the construction of the first computerized computer factories in California. With him in the lead and as a constant innovator, always looking for groundbreaking products and using the WebObjects tools, he could have translated into a generic, maybe even as one of the first internet-based ERP systems. To a degree, he had fallen into the same trap he used to accuse the Xerox team of when they didn't have the management execution to turn disruptive innovations into new opportunities.

Years later, with Apple's breakthrough success, Steve couldn't do that anymore, despite their extremely high market capital. In the meantime, the existing ERP giants (SAP, Oracle, Infor, and Microsoft) had the opportunity to ensure a vendor lock-in situation, mainly through the classic solution of their Y2K problems. These legacy ERP vendors have been able to increase their EBITDA through their maintenance income. Unfortunately, most ERP data is still blocked for the use of A.I., especially machine learning.

My visit to the Sony Computer Science Lab in Tokyo in the mid-1980s, where Dr. Doi was responsible for developing new workstations, was another visit that helped me with changes for the company later. Dr. Doi worked on a new concept to improve team productivity. He had discovered that small, fully independent teams were able to build a much more sophisticated product with a much shorter turnaround time. Cordys scrum concept was based on this vision.

Baan Company could have built again an (second wave) ERP system

We could also have achieved it if my plan had succeeded in taking back Baan company's control with the action plans mentioned chapter 9 of part 1 of my autobiography. In retrospect, it could have been simple. We were by far the largest shareholder, as General Atlantic had sold most of its shares, and the shares of the second-largest shareholders were in the 5% range.

The fatal consequences of the management's M&A policy also left an advantage: the Aurum CRM company, which was ranked as the second-best player by analysts from Gartner (after Siebel). The sale of Aurum had created a comfortable financial position. We could have used TopTier, the beautiful Baan-IV product, and the new Nucleus tools to launch a second-generation BPM-driven ERP cloud system on the market at the beginning of this century. While we missed that opportunity, we are now much better positioned to link the microservices tasks of the knowledge workers to the consumerized new devices, with which we create solutions for Industry 4.0 in the third wave: The 'systems of innovation'.

ERP based on mass-customization

With new techniques such as IoT, big data, machine learning, and containerization (Kubernetes), ERP has become the basis for Industry 4.0. With this, we are adding a new dimension to the generic production flows of software components. The power of the new generation of open source tools makes these microservices scalable, secure, and cheap. But above all, this current technology offers the possibilities for disruptive customer-specific solutions. This gives innovative companies a head start in the field of operational excellence (OPEX).

The basis for this is the generic (Industry 4.0) cloud components, which have now become at least 10 times cheaper than traditional legacy software solutions due to their scalability and security. These decoupled (generic) microservices offer the distinct capacity and flexibility to quickly and easily build specific 'micro-apps', based on late binding and add flexible improvements to specific workflow tasks.

These next-generation 'systems of innovation' can constantly add innovative business concepts to our generic microservices, creating digital 'end-to-end' business processes based on 'one version of the truth'.

Machine learning enriches the underlying data dynamically and equips our knowledge workers with wisdom. The benefit from scalable and generic software components that are innovative, cheap, and secure offers flexibility to use unique workflow processes digitally and dynamically and improve control of the supply chain. With this, the Internet has become our computer, and the underlying manageable data will become our new gold, enabling us to double the EBITDA.

Comparison between Jan Baan & Tom Tinsley with Steve Jobs & John Sculley

As mentioned earlier in this chapter, the similarities between our careers are so clear for me. From glimpses into the latest technologies, and riding the different technology waves, to building multiple organizations, some of them ahead of their time, and an unfortunate choice of CEO's. This brings me to my next comparison. The hiring of Tom Tinsley and handing him the CEO role have many similarities with Steve hiring John Sculley.

Like Steve with John Sculley, I made a mistake when recruiting Tom Tinsley. Before Tom joined, I, as representative of the majority of the shares, had full control over the company, including the board. After giving Tom all the freedom, the company adopted an unfortunate M&A strategy, gained a much higher market cap, and had everyone on the board focused on Tom's policy.

Frameworks & Languages used in the Solvay Apps

- | | | |
|---------------|----------------|----------------|
| ✓ Java | ✓ Hibernate | ✓ Objectify |
| ✓ Python | ✓ Pickle | ✓ Angular |
| ✓ JavaScript | ✓ Pandas | ✓ React native |
| ✓ SQL | ✓ <u>Solrj</u> | ✓ phpMyAdmin |
| ✓ Spring Boot | ✓ Mailjet | ✓ Django |

Solvay apps are created by several vendors, their design patterns and technological preferences are different. It is quite difficult to keep these applications maintained.

Our customer value focus was replaced with shareholder's value. The focus drifted to the short-term with a strategy to cash-in on vested shares as quickly as possible, instead of first giving the highest priority to the company's long-term policy. I also see a lot of similarity with the moment where John Sculley and the Apple board dismissed Steve. Not

that I was dismissed, but given the rapid growth of the Baan Company and my decision to hand over the CEO role to Tom Tinsley, it gives a bit of a similar feeling.

At first, it felt good as Tom was handling the operations, quarterly shareholder reports, and analyst updates. With that load off my back, I had the opportunity to focus more on the R&D department as a Chief Strategy Officer, where in particular the Nucleus project was important to me.

This disruptive initiative had the goal to roll out a renewed software development process to reduce complexity by using business objects. It resulted in an ease of use of the software for the end-users. I traveled a lot in this role and visited many of our strategic clients around the world. While I took my eyes off that part of the business, Tom had shifted to a short-term strategy and set a course that eventually would destroy the Baan culture and our company. Soon after my departure, the Nucleus initiative was put on ice which eliminated the role of the very talented Theodoor van Donge. He was a top engineer from the beginning, who soon joined me in my new company, Cordys.

Like Steve Jobs, after offering my resignation to Baan Company, I brooded for a couple of months to think about a new direction.

Cordys was set up pretty quickly, allowing us to start working on new disruptive ideas.

Differences between Steve Jobs and myself

Undoubtedly, Steve Jobs' extreme vision and drive has been the biggest contributor to the world's most successful company if you base his contribution on Apple's valuation of US \$2,000+ billion market cap. In the lessons from Steve Jobs in this chapter, you see unique components that have helped this great business leader setting the stage for this success.

Eventually, he went to the extreme, where only success counted. Success, however (despite being primarily intended for the products), is limited by the value of the market cap. I am fairly sure that this is far beyond the expectations he had at the time and that he undoubtedly succeeded in putting the world's largest business success on the map. The irony of it all is that this has been realized through what Steve first described as a threat, Apple's monopoly position.

Personally, I have never even remotely pursued this ambition. Obviously, with my business talents, I am also far from the extremely gifted Steve Jobs, but as far as the core of his vision is concerned, I feel deeply connected with him. At first, I had analyzed several IT icons such as Bill Gates, Larry Ellison, and others for this chapter, but decided on the analysis of Steve Jobs. I hope you, the reader, will understand this, as I have found it very

enriching for myself to bring together many of Steve Jobs' wise experiences as an ode to this great business visionary.

I also want to use it as a reflection to operate my business. As I have described it extensively in this book, this book was written to pass on to the next generation. My strategy and our intended business culture were centered around creating a good working environment for our employees and building top products.

I have been doing all of this with the (Good to Great) vision of Jim Collins in mind.

After all, our employees are our business family, and they deserve a warm, protective, righteous, rewarding, and at the same time challenging place to evolve.

Through what our employees experience and achieve, we want to help our customers constantly improve their business processes and empower their growth.

My ultimate desire is that you not only think about yourself and the results you have achieved but that you also will strive beside your own success for the success of others while adding social value.

Reaction from Vinodh Kumar Jk - Senior Vice President (responsible for Eva code generator)

Thank you for sharing this Steve Job's story with us.

In where you differ, is the value and importance that you shared for 'creating a good working environment for our employees in addition to our top products' and 'our employees are our business family, and they deserve a warm, protective, righteous, rewarding, and challenging place to evolve' were very reflective of our famous and loved Baan culture and there is no exaggeration on that.

Compared to Steve Jobs, that we have always focused on 'data' at Baan, Cordys and Vanenburg is powerful, now that data is the 'gold of the 21'st century'.

Thanks and regards, Vinodh

5. From crisis to crisis

Unexpected difficulties

When I wrote my farewell letter on Monday, July 27th, 1998, I thought things would settle down for me. The 20-year period at Baan Company had been very intense. I was fully devoted to the company, especially in the early years. Thanks to my wife, I had the privilege and freedom to do so while she dedicated her time raising the children. Yet building my company from the ground up did not give me the greatest satisfaction that you can imagine. There are more important things in life than just the business.

In addition to my family, there is always the personal question about the purpose of my life. The dependence on God's blessing on all things in life always weighed heavily on me. My business boomed after many years of hard work, which all happened without me noticing it too much. Now, while I reflect on life, I can see it much clearer, and the ability to adapt to the numerous growth opportunities presented over and over again amazes me.

Our business peak came during the IPO in 1995. Entrepreneurs often see a flotation as something that can only occur once in a lifetime for one person and, therefore, as one of the most important things in life. However, to me, it was not the most important thing in life. Therefore I have experienced the enjoyment of the IPO differently. It was God's blessing not to become completely absorbed by the company's success and the IPO, and in retrospect, I see this 'disconnection' as a protection for my family and me.

It was a difficult period, with many sleepless nights. I would often get out of bed because of my troubles and would start reading the Bible. Reading the Bible gave me some peace amidst all the business turmoil that kept me awake at night. I developed the habit of taking 'quiet time' in the morning by first reading and reflecting on some chapters from the Bible. As a result, I have increasingly come to appreciate the value of the Bible. After everything settled down, I found much free time after the business was no longer mine. We bought a holiday home in Dwarsgracht (near Giethoorn), which we enjoyed very much and made great family memories.

In May 2000, Invensys bought Baan company. I still remember signing the contract in Dwarsgracht. Feeling relieved and thought I had fulfilled all my responsibilities to Baan Company. However, soon, I was facing two lawsuits. Although I did not have anything to do with it personally, all the criticism was aimed at me. Even a movie mocking my background and principles was released during this time. The film also won an award. I was personally hurt and offended by the movie and placed everything before the Lord through my prayers. Afterward, I had to retake the lead in two court cases. It was a very challenging period for me.

Those difficult times deepened me spiritually. Business-wise I got some courage and strength to develop and expand Cordys. As a result, I often visited our branch in India and combined these business trips with visits to the Oikonomos projects in India and Papua (Indonesia).

Cordys also took a considerable flight. Especially on the technological front. We managed to penetrate several significant companies. We were quite ahead of the time in terms of technology. However, things were dull on the sales side, and it remained difficult to make a sale.

In 2007 we got an American shareholder, who had to intervene considerably in 2008 because our revenue lagged behind the forecast. We thought that a sales breakthrough was right around the corner, but things were harder than we expected. We weren't too worried as there was sufficient liquidity for a rainy day.

Everything changed at the end of 2009. While we thought to have sufficient reserves using our beautiful estate 'Kasteel De Vanenburg' as collateral, things turned sideways due to the ongoing banking crisis. Borrowing money had become much more difficult, if not impossible. In chapter 6 from part two: 'Acquisition by OpenText,' I explain the details of the crisis that followed. While I had kept the castle as a last resort to raise money through a sale, this was no longer possible.

Reason to sell

We needed extra liquidity to continue Cordys' business. Moreover, if we didn't strengthen our financial position, then our other minority shareholder would take over as a VC, and we would have to dilute our ownership immensely and surrender our majority position.

A group of investors, named LAMP, expressed interest in the Estate and our collection of beautiful 17th- century paintings. We agreed on a purchase price of € 36 million, on the condition that the first two installments of € 12 million each would be paid in June and September 2012. The remaining € 12 million would be paid over 12 months of € 1 million each. A Letter of Intent was signed on June 26th, 2012.

We also agreed that the painting collection had to be stored safely in consignment while the buyers arranged their financing. Unfortunately, this 'great' deal was the start of a lot of business misery. The buyers had overextended themselves, and their guaranteed financing turned out to be 'clouds without rain.' They kept us on a leash for months with excuses. The 'deal' never became real.

We had planned to use the expected two short-term payments of € 12 million each in the following way. The first € 10 million was for the further settlement of the financing of

Cordys, allowing us to hold on to our majority interest. Another € 10 million for the repayment of the loan from Jan and Kees van den Heuvel, who had provided a loan to Vanenburg in 2012, and € 4 million in liquidity while using the monthly € 1 Million installments to support the business. We aimed to secure our innovation in Cordys with this deal. At the time, we had very high expectations for our new Business Operation Platform and wanted to use our total business capital for this.

Looking back, we could have made a better choice. I think my character did not allow me. I am known to be an extreme go-getter, especially when it comes to promising business initiatives. In many cases, my perseverance yielded a lot, like the Boeing Company deal and the multi-million dollar investment from General Atlantic Partners in Baan Company in 1993.

The various OEM deals with companies such as IBM, Olivetti, and ASK. The introduction of the Baan Company with an IPO on the Nasdaq stock exchange. However, the consequences can be dangerous if you go too far in reaching your goal. In some cases, you have to be prepared to take your losses and let someone else take the prize.

We should have let go of our stake in Cordys and accepted the minority position. It would have allowed us to keep our property and the painting collection. In the meantime, the crisis took a big bite out of our luxury real estate's value, such as Kasteel De Vanenburg and the expensive art. The misleading deal with these so-called buyers placed us in a horrible position, and the two years following became very challenging for our business and placed us in a deep financial crisis.

Participation of Theodoor

I owe a lot to Theodoor van Donge. At Baan Company, he had the vision for our development tools, particularly the Baan-shell. Together with Jan Hasselman, who managed to define the core components for ERP, they assisted the R&D team in building a world-class ERP system. With respect for this, I rewarded them with an attractive number of share options, which they managed to cash in after the IPO and made them wealthy.

When Cordys was set up, Theodoor was once again able to define the vision of an Enterprise Service Bus (ESB). He was the drive behind the Cordys R&D team. When we needed further financing due to the problems with Argonaut, he offered to finance a few million euros together with me. I appreciated this financial support from Theodoor because he also was firmly convinced that Cordys would mean a breakthrough in the software world with the development of our business operating platform. At that time, he came up with the new setup or VDML (Value Delivering Modeling), where the Cordys platform could connect the IT processes to the strategy in the boardroom.

However, OpenText had no understanding of this future innovative wave; and people like Theodoor van Donge and Henk de Man were immediately sent away. It is a shame to see that Theodoor also lost his money with me. However, together with Henk de Man, they started a new company based on their unique experiences with the VDM concept. I sincerely hope that their initiative will compensate them for the frustrations which they suffered during the aftermath of Cordys

Farewell to the Kasteel De Vanenburg estate

On Saturday evening, June 26th, 2012, we had a lovely family barbecue on the occasion of my son Gert Jan, his wife Netty, and their children's farewell before they left for America. It was a beautiful evening. Afterward, I walked alone from 'Klein Vanenburg' (the annex building) past the castle to our house at number 15. I had never seen Kasteel De Vanenburg estate that beautiful. Late in the evening, just after the longest day of the year, everything looked perfect. I realized that this was the last time I could experience this moment as the owner of this beautiful estate, as soon I would have to give up the ownership. I thought of the beautiful work we were doing in India, especially the school for the underprivileged and 'Calvin Institute of Theology.' I started comparing this with Kasteel De Vanenburg, and the importance of our activities in India came to the forefront. By selling the Kasteel De Vanenburg estate, we would be able to continue supporting this great project and continue to manage the Cordys' business.

Sales contract seems to be arranged

In the following week, I signed the term sheet with the interested buyer LAMP, initially giving a start to the sale of De Vanenburg with everything in it. The extensive real estate properties from the past had now shrunk to our holiday home in Dwarsgracht. However, we still had a new business initiative with excellent opportunities, in which we invested much money in product development, and with the sale of Kasteel De Vanenburg, we no longer had any financial obligations to third parties.

A sense of wonder prevailed at that moment in me. Our high valued real estate was, at the time, a means to invest our surplus assets. Our right to exist as a company had yet to be demonstrated. We consciously took business risks in Cordys with the development of complex IT projects. If this were to become a disappointment, we would at least have had a chance to make a 'safe' investment in financing our charitable projects in developing countries. I was therefore happy with the sale of the Estate, which gave us sufficient resources to finance our setbacks and our Oikonomos projects. Fortunately, I did not have a disappointing feeling about leaving the property behind; it felt more like a sense of relief. With this transaction, I could mean something to the well-being of the poor in India.

Church services in Switzerland

On Friday, July 27th, 2012, we arrived in Thyon, Switzerland, at the holiday address of our son Jan Willem and his wife, Trusanne. We had a few relaxing days there, despite the pressure of the business worries. On Sunday, two church services from Reverend A. Bloemendal from Groot Ammers (PKN) were conducted in Dutch.

It was about Solomon, about 1 Kon. 3: 3 (how Solomon loved God). Love is decisive and ultimately not the committed sin. Solomon began with a heart full of affection for the Lord, depending on living close to the Lord. He walked in the line of his father David and lived according to God's commandments. Solomon, too, had the desire to sacrifice, but at high altitude in Gibeon, where the Lord appeared to him in a dream by night. At Solomon, there was a limitation in love for the Lord. His own me, life in the world, the land also full of paganism, because sacrificing on the heights is also the place of paganism, with their idols. Despite his love for the Lord, there were these sins. Perfect love is only expressed in God's great Son, Jesus Christ. Solomon had worked himself into trouble, but the Lord finished His work. Through the power of Christ's blood, we are going to hate sin. God's children are not perfect. Solomon's love was imperfect yet decisive. He loved the Lord. Despite everything, there was love at Solomon. There was a shelter with Christ, who gave his life for sinners. Solomon was not judged by his actions but by his love.

Shameful lesson

I thought back to the time in April 1995, during the Baan Company roadshow at my hotel in Portland, Oregon, in America. My business responsibilities weighed heavily on me. I then read the same chapter about the history of Solomon and then prayed to the Lord if I could receive wisdom for my business circumstances. It seemed for a moment that this prayer went straight through the ceiling. Looking back, I have to admit that (just like with Solomon) I didn't do much good. The height of my pride has so often been at the forefront. Indeed, the desire was there, but the outcome of all my activities, now years later, give me deep feelings of guilt.

Liquidity problems

Wednesday, August 1st, 2012, I was home, feeling powerless. Especially as time was running out and there was uncertainty regarding the deal of the sale of the Vanenburg. It seemed like we had a deal, but the promised down-payment kept being delayed. I felt like I was trapped by the circumstances and was losing courage. Again I had difficulty sleeping and turned to prayer and meditation to fill my time awake at night. Late the previous evening, I got the message that the contract had been signed with the financiers of the buyers. Some robust US hedge fund backed them, and the down payment was expected

that week. This news gave me a massive sense of relief, and the only thing to do was to wait and see if the news was indeed real.

The loan from the Van den Heuvel brothers was not as effective as expected

Two years earlier, my friend Jan van den Heuvel, together with his brother Kees, helped me with a loan of 10 million euros. This loan prevented Argonaut, my other shareholder in Cordys, from getting the majority of the shares. In addition to an attractive interest rate, with collateral on the castle and other property, they were entitled to convert the loan into Cordys shares on favorable terms. All in all, an attractive financial deal for the Van den Heuvel brothers. In the meantime, this purchase option was no longer relevant, as the value of Cordys had unfortunately eroded over that period. At the time, this loan was a solution for me, but now it turned out to be more of a commitment, of paying interest and debt.

Still no solution

For several months there had been a struggle with the business transactions around the Estate. Almost every day, we were promised the first payment term. Then suddenly, a new obstacle occurred. Everything seemed to be going well when suddenly Superstorm Sandy ravaged and flooded New York and the Northern East Coast of America on October 29th. The hedge fund's offices of this transaction were closed with Wall Street partially underwater, bringing the deal to a halt for a few days. On November 5th, we finally received an apology letter informing us that there had been a delay in payments due to the force majeure of the storm but they guaranteed that everything would be finished within seven days. According to the latest conditions, we had the first payment credit on November 1st, while the 2nd installment would expire on November 15th. They assured me that the first payment would be executed immediately.

In the meantime, we had continued our conversations with IBM about Cordys and reached the acquisition phase. There seemed to be a reasonable chance that it could come to fruition before the end of the year. Extensive discussions took place with their core team in New York. The responses were positive. The sale of Cordys would generate sufficient cash for both Oikonomos and privately. However, we were losing negotiating power due to Argonaut using this dire situation against us and stepping in at a meager value so that hardly anything remained for us after a sale. That is why collecting the first installment for the sale of the Estate was so important to us.

On November 12th, 2012, there was still no message. During the day, I was busy creating the Cordys presentation that I hoped to use in the Middle East the following week, which distracted me from my problems. Again that night, the pressure hit me hard. I felt like my

shoulders were pressed down. I realized that the issues had been going on for three years, and the last few months were the worst.

Despite all my worries, I believe that the Lord knows the circumstances, my intentions, and the charitable work in India. In the meantime, I realize that the Lord does not necessarily need me for His work.

The solution seems to be coming

Thursday, December 13th, 2012. It seemed that everything would be fine now, but it had not been easy. Especially the last few weeks have been debilitating for me. The business situation has further deteriorated. 'I received a big disappointment last week because Cordys' internal political problems overturned the expected takeover of Cordys by IBM. We thought the acquisition would be successful, given the interest of the IBM team and the compliments we received about our product. I experienced how difficult it is if you do not have the cash to push through a solution. I had not experienced such a situation for at least twenty years before this point. It was now best to reduce Cordys to a focus solely on Europe and to further drastically reduce our costs. A reasonable business model was feasible but required further financing from both shareholders. If we could work it out, there would still be some value left of Cordys that can benefit the Oikonomos foundation projects. However, the Vanenburg deal must go ahead to finance the new business model and repay all obligations. Then I have no debt, no further assets than my share in Cordys. However, if I cannot invest in Cordys, all future value goes to the other shareholder. I was very stressed.

Now to the notary?

On Wednesday, December 19th, we received a good message from the buyer in the morning. The documents seemed to be ready, whereby the first installment of € 14 million would be transferred that night, and the deed would be passed at the notary the next day. If that is the case, then a breakthrough has finally come to a turbulent and challenging period. During an Oikonomos board meeting earlier that week, we felt the tension, and everyone agreed that the situation around Cordys is undoubtedly tricky. There was no money available from Cordys for Oikonomos while the sale of De Vanenburg estate was dragging on. That was the most crucial week: if the deal wouldn't come through, we had to consider the future of the projects, as there would be a significant financial problem. Several scenarios could take place:

1. If the sale of the Estate does not occur, there will be a significant problem in the short term. In that case, virtually all financing must be stopped immediately, followed by a board in the short term.

2. If the sale of the Estate continues, there are sufficient resources for the year 2013. However, the level of the budget is then too high to be able to sustain that structurally. In this case, almost all financing must be terminated in the long term.
3. If there is a sale of Cordys, some resources could be released in the long term. In that case, more is possible than in the previous scenarios, but then the spending is still structurally too high.

A tasking Christmas

Thursday, December 20th, 2012, I thought it would be an exciting day because the sale was going to take place that day. However, that morning, our buyers had not yet received all the documents. As usual, delays occur again. No settlement had been made yet by Friday. Again, promised commitments were not delivered. Now it seems that the two dutch teams are fighting among themselves how they can strengthen their position. Moreover, it was becoming increasingly difficult on our end, although Cordys could arrange the salary round, which took some time. It would make you despondent or desperate. Fortunately, I have been given the strength to be busy. I occupied myself with a hobby as 'layman theologian' and also arranged some annotations from the past (from my farewell letter to the staff of Baan Company on July 27th, 1998 until the situation of that day). When I see this again today, it went from market leadership through a path of severe trials and material losses to personal gain. However, I sincerely hoped that a new work situation would arise.

A few days in Ouddorp

In Ouddorp, Rinie and I spent a few days in the house of daughter-in-law Gonda. I picked up the Bible and read the last part of Deuteronomy and the first part of Joshua. It contains parts of our wedding vows 'I will not leave you, and I will not forsake you.' These words gave me some courage. The same words gave me the courage and strength during the DC (American) Court Case hearing on September 27th, 2002 (see chapter 2.2 in part 1 of the Autobiography). Later that morning, there was another message from the buyers. There is still no green light. They hope to have the papers that night. Hopefully, by the end of that week, the money would be at the notary. There was no solution yet, and so in the Christmas season again, I was down. There was a plea for an outcome since everything was in God's hand. 'Delayed hope hurts the heart.'

New Year's Eve 2012 - 2013

On New Year's Eve, I had to crack a hard nut. Now that we had not completed the deal, we could not hold our position in Cordys. I asked my son Paul to tell the buyers this in advance and clarify what difficult situation we are still in. The situation was challenging for me because I now had to relinquish all control and become entirely dependent on the other

shareholder in Cordys. I thought this was a painful event, but it did provide a sense of relief afterward. Later that day we had a great evening with our daughter-in-law Gonda, her children, her second husband Adriaan, and our sons Ardjan and Bernhard with their wives Joanne and Maaïke. We had great conversations, and together we entered the New Year in prayer after reading Psalm 90. When we are together as a family, especially on occasions like this, we remember our late son Jan Peter. We feel it is a great privilege that my wife and I still feel deeply connected with Gonda, often without words, in the sorrow of missing our son Jan Peter, the deceased husband of Gonda. Recollecting old memories provides a place for good humor and coziness despite heavy sorrows.

Tuesday, January 2nd, 2013

Unfortunately, there was still no solution to our Vanenburg problem. This lack of solution affected me deeply on the night before New Year's Eve. I thought about how things had gone over the past years and felt quite depressed. During those days, I reflected on the parable of the prodigal son (Luke 15). It accused me of my business life in recent years. In particular, the words: *'and have spent well there, living lavishly.'*

I spent a long night pondering verses 17-19:

But when he came to himself, he said, How many hired servants of my father have bread enough and to spare, and I perish here with hunger! I will arise and go to my father and will say unto him, Father, I have sinned against heaven, and in thy sight: I am no more worthy to be called thy son: make me as one of thy hired servants.

I thought about the death of our Jan Peter, almost ten years before. A few days before, I stood at his grave and thought, 'How much better it would have been if I was lying there instead of Jan Peter.' I've only gotten worse over the years. I have asked the Lord for forgiveness with the wish that the burden would be taken off my shoulders and that I would be involved as a servant.

I think I slept not a wink all night. In the morning, I wondered Psalm 77: 7-8

*Will the Lord cast off forever?
And will He be favorable no more?
Has His mercy ceased forever?
Has His promise failed forevermore?
Has God forgotten to be gracious?
Has He in anger shut up His tender mercies?*

Still no deal completion

It was Tuesday morning, February 5th. The Vanenburg estate deal was still not complete. The tension continues, and although there is considerable pressure, it seems that there is more perspective for Cordys.

Last week in London we negotiated with Argility from South Africa, and in principle, we have signed an agreement and a term sheet, in which Cordys takes over Argility. Our American shareholder Argonaut wanted to co-finance this deal. But by selling the castle, we could then have the opportunity to co-finance it ourselves and not dilute our share too much.

The Cordys combination with Argility was directly profitable and had a combined turnover of 60 million Euros. The deal indeed offered a good prospect. However, the Vanenburg deal must come through to enjoy the benefits. It was a deal that moved very slowly, and again I couldn't sleep very well during that time. I felt like everything was falling apart. I felt claustrophobic. Would everything be in vain?

A new hobby for relaxation: Layman Theologian

On Saturday February 9th, I kept busy with my 'lay theology', due to a lack of interest in business activities. I stayed busy all day organizing and correcting what I had collected over the months prior. That gave me much entertainment despite business stress.

A 'merger' solution seems to be there in the end

From a business point of view, if this transaction had happened, I would have practically sold all my assets. Especially with the sale of Kasteel De Vanenburg, the burden is off my shoulders. I had to give up my ego and experience something of what the prodigal son exclaimed: 'I will rise and go to my father, and I will say to him, Father, I have sinned against Heaven and for you; And I am no longer worthy to be called your son; make me one of your hired servants.'

The purchase from the Pearl merchant, another Biblical story, was of great value without money and price. He had to surrender everything, but all he had was given to him out of grace. I now wonder if these tribulations were because of my pride. It made me disgusted with myself, displeased me, and I felt humiliated before God. I feel that these problems and circumstances have driven me to God. That remains my only expectation.

For a moment, everything seemed to end in a business catastrophe. The projects of the Oikonomos foundation also were at risk.

6. The end of the drama

Around February 2013, everything seemed to be set in stone. In the weeks following, all promises were broken, and we set an ultimate delivery date for the buyer. When he could not comply with this but continued to promise that the money was available and could be transferred at any time, the notary warned us that he had to investigate the origin of the funds to exclude fraud. We then engaged a forensic agency to investigate the background of the potential financiers.

When it emerged that these were not traceable and shadowy practices surrounded the deal, we eventually canceled the contract. I then entered into negotiations with the Van den Heuvel brothers, and on June 13th, 2013, we transferred the entire De Vanenburg Estate to them. A month later, there was a terrible article in the corporate gossip magazine Quote. Over the years, after the height of the Baan days, Quote often reported on how our former wealth had diminished. For us, it was more a relief and important that our liquidity was in order. We were not worried about the sale of these properties.



From the magazine:

‘Quote 500 member, Jan van den Heuvel puts half the street up for sale. Former vegetable king Jan van den Heuvel is placing a large part of his real estate in Putten, Gelderland, for sale. An unusual move since he has only owned the properties for a month. In

June 2013, Jan van den Heuvel, together with his brother Kees, purchased a large number of properties at the Vanenburgerallee in Putten, in Gelderland, with the eye-catching Kasteel De Vanenburg for an amount over € 18 million. Now he is listing a modest villa, two residential farms on a 5-hectare plot, and a beautiful country house with an associated estate of just over 5 hectares for sale'

Moved to Lunteren

Looking back, July 5, 2014. A year after completing the business concerns surrounding De Vanenburg Estate, we have moved to Lunteren. Last year, on August 15, 2013, Cordys was sold to OpenText for a beating. This acquisition initially happened behind my back and was facilitated by Argonaut, who became the major shareholder.

Because the sale of the De Vanenburg Estate did not happen on time, I could not maintain my position in Cordys as a shareholder. Because there still had to be a loss financing, and we could not free up cash for this, Argonaut managed to strengthen its position enormously. Our shares were diluted to a relatively small minority interest. Meanwhile, Argonaut wanted to get rid of Cordys and, without my involvement, they made a deal with OpenText. There was no choice but for us to accept this. The only advantage was that this deal stabilized my financial situation and allowed us to restructure the interests of Vanenburg Software. Despite all these disappointments, I experience this as a point of rest. After looking around, Rinie and I decided to purchase a beautiful house in the Dorpsstraat in Lunteren.

As a result, the past year has given me much stability for my business and private life. We have moved last week and have had the pleasure of living in this beautiful home. With strong support from my brother Paul, it turned out to be possible to continue the Oikonomos projects in India, particularly the Jan Peter Memorial school program and the Calvin Institute.

As a result, a more sustainable model emerged, which has filled me with gratitude. It has been a significant concern for me to continue supporting these projects financially in India in recent years. In this, I notice God's goodness and faithful care about us and also about these beautiful projects. Besides, they are no longer now 'our' projects. In previous years it was easy to write a check regularly, but now I had to make an effort to finance it with the support of third parties. This policy has also sharply adjusted the organization in India, which is very healthy in financial and operational terms.

The situation at Vanenburg was quite difficult because it was intended as a start-up initiative. We decided to continue our final vision privately, this time, after the sale of



Cordys. As a result, we had to intervene considerably at the Vanenburg Group. Now Vanenburg Group is developing healthily as a result of this reorganization. is a more small-scale software company with approximately 100 employees in India and Putten. Here I can make my experiences from the past useful to the development of the productivity of the knowledge worker through ‘smart micro-apps.’ Our company Educator, which has built a software platform for education, has since developed into a profitable business.



I am still involved in our software business, but I have delegated daily operations to my sons Paul and Ardjan. As far as the Estate is concerned, we still temporarily have use of the premises. The Van den Heuvel brothers intend on selling the Estate, at a future date. We are now the tenants and operate this as a hotel with a restaurant and conference center. My son Bernhard is in control of this. We hope to sell this business with profit as a whole deal together with the expected sale of the castle.

Looking back December 31, 2016

At the end of this year, it was nice to see that that Vanenburg Software and Educator were profitable for the first time. I am blessed with the health and strength to do our daily work with my sons in a relaxed atmosphere.

Last year we already saw a 41% improvement in revenue growth, but unfortunately, without profit. As a result, the banks were not prepared to co-finance, and I had to carry the burden of the loss privately. In recent years, we invested around 15 million euros in both Educator and Vanenburg Software. After the disappointing sale of Cordys, this investment was quite a heavy burden for me. However, there was always trust, and we were positive for the future. This year, for the first time, we conclude positively, and our group profit is close to half a million Euros. This improvement gives us a solid foundation for the coming year with further expansion. We are now reaping the benefits of the reluctance of the banks since we had to finance everything with our own money, and now as a profitable company, we are without bank debts.

Repurchase of Kasteel De Vanenburg

Over the past few years, the Van den Heuvel brothers sold the houses with the farm, but the castle and the Knowledge Center (the office building) remained difficult to sell. In this space, we accommodated our companies Vanenburg Software and Educator. OpenText with our previous Cordys company also stayed here.

The Municipality of Putten also used this building for a period to bridge the town hall renovation. Given the good rental income, the Van den Heuvel brothers were not in a hurry to sell. There was a similar kind of situation for Kasteel De Vanenburg. As agreed, we would take responsibility for its use through our B.V. Kasteel De Vanenburg. My son Bernhard managed to double the hotel's turnover and the meeting location in recent years, and operation has now become cost-effective.

In 2019 Broekhuis automotive has purchased the Knowledge Center where they want to carry out their core activities. Putten is a home base for them. Therefore, both Vanenburg Software and Educator moved out of the knowledge center. This move was emotional for me.

After searching for the best location for us in a suitable office building in the middle of the Netherlands, some challenges appeared. Everyone was used to this location at Vanenburg, and a move would not be a positive experience. Amersfoort as a city center seemed cozy, but hard to deal with daily traffic jams. Lunteren seemed nice with an option on a beautiful villa but gave many problems for sufficient parking space.

Besides, with the sale of the castle by the Van den Heuvel brothers (Duo-Invest), our operation Vanenburg Catering Facilities would be split up. If the new owner did not feel like taking this over, we would liquidate the hotel business.

Once again, in June 2019, I visited my friend Jan Van den Heuvel at his holiday address in Ouddorp, and we had a nice dinner there. I asked if I could buy the castle. We quickly agreed, and the next Saturday, Jan and Kees visited my house, and we were able to shake hands on a deal after we negotiated over a cup of coffee.

Suppose that in our conflicts with Argonaut (VC in Cordys), we had decided to accept their offer, in which Argonaut would then have the majority shares and further finance the burn rate of Cordys. This would mean that we, as minority shareholders, would no longer have to invest any further liquidity in Cordys so that we would manage the property of our Estate with a balance sheet value of approximately \$54 million untaxed within the Vanenburg Group.



In addition, in 2008, we took over the Cordys Process Factory from Cordys into the Vanenburg Group. The cost of 60 engineers in Coimbatore was no longer acceptable for the Cordys board due to the lack of revenue. This promising start-up had already requested several million euros in investments for our (now Collabrr) no-code product in previous years. The Cordys board wanted to stop these developments because they did not feel like investing millions of euros in the coming years, especially because Cordys was still unable to show a positive EBITDA.

But stopping this development would still require a reasonable amount to liquidate this department in Coimbatore, as well as considerable reputational damage due to the redundancy of our 60 engineers. In addition, the stability of the Cordys engineers in Hyderabad was endangered when their colleagues in Coimbatore were to become redundant. I then suggested to the Cordys board that I would take over this activity for €1 without its IP and was also willing to continue to support the CPF (Cordys Process Factory) product used by Valeo. This move has given me the Valeo relationship in Vanenburg.

So from 2008, I continued to finance this activity from my private situation, but I started again by completely renewing this product based on the Internet 3.0 wave, which means big data and the Google Cloud platform, as well as the latest open-source tools. Meanwhile, I estimate that in the period from 2008 to 2019, the investment in my Vanenburg start-up and intellectual property has been at least €20 million, combined with the funding in R&D previously by Cordys in CPF (period 2005 - 2008).

When I was selling the Vanenburg estate, I was mainly concerned with the choice of where to go, and the choices were:

- a. The continuation of the Estate, where there was hardly any room for further intensive investment in our promising software products;
- b. The sale of the castle, albeit with a significant financial loss. The repayment of all debts and continuing an active investment in completing what we now have to offer within Vanenburg as a potential key player for solutions for the Digital enterprise.

At the sale to Duo-Invest for €18 million, we were forced to participate in the proceeds of the profit from the resale. In the meantime, good results were achieved with the real estate resale outside the castle. However, the sale of the Vanenburg estate took too long for Duo-Invest. It was also complex because the Vanenburg Group provided the facilities for the catering business. As a result, Duo-Invest was prepared to pass on €4 million of the realized profit to us, so that we could buy back our castle for €13 million and had to put €9 million in cash on the table, with which we today own the pearl of the Vanenburgerallee again.

If we compare this with the write-down of the book value and the failed deal with LAMP in 2012, we can conclude that based on the current Software IP value Vanenburg comes out as a winner. So afterward, I am glad that I did not opt for the 'bricks' but chose for my 'profession in innovation' of modern microservices.

At the end of July 2019, we were able to place the following press release

Vanenburg Group B.V. purchases the Kasteel De Vanenburg estate back from investment company Duo-Invest. In 2013 Vanenburg Group had to sell this property. This allowed the company to focus on its core expertise by delivering innovative software technologies. In the past years, our companies - both the software as well as the hospitality business - have shown significant growth. For more than twenty years the castle has been close to our heart, and it carries not only the name of our company but is also the strategic headquarter for our business. In order to ensure this for the future and to facilitate the business expansion, we have bought this location for housing our software activities and continuing our hotel restaurant and convention center.

Looking back, I was surprised that we could move our offices into the castle. From 1996 on, I had spent much time renovating the castle, which had a lot of maintenance backlog. We have also mapped the infrastructure of the area around the Vanenburgerallee.

The buildings around the castle have all been renovated. They give a beautiful backdrop to the castle, which remains the jewel of this area. Especially for branding, this gives our company cachet. Otherwise, the castle would have been sold for a fraction of the renovation cost spent over the years. We have restored many historical elements in almost

25 years because not everyone can give them a meaningful and commercially responsible destination. Also, we reap the benefits of the original investments that we were able to make with exceptional care for the historical value of the Estate at the time.



Educator M&A deal: December 2020

At the end of each year, I make a habit of looking back on the year's events and how they affected me. It is fair to say that this year 2020 was a fast-paced year for me; although with several lockdowns, for others, it may have felt as things came to a sudden stop when COVID-19 created a huge change in the world economy and global supply chains. Numerous organizations had to change their business model or face dire circumstances. We felt it ourselves when the business model for 'Kasteel De Vanenburg,' we had re-acquired in mid-2019, had to be adjusted. My son Bernhard and his team were fortunate enough to turn things around, and we closed the year with limited losses and are now well-positioned to face the year ahead.

My son Bernhard, who ran the operations, immediately braced himself to do everything he could to stay afloat through cost savings. At the end of this year, we can conclude that this

has worked and saved us € 1 million on an adjusted business model for private hotel guests. Although we reduced the overall costs, our expected positive EBITDA was turned into a significant loss.

So, the pressure on liquidity was our main concern last March, which made us decide to put our company Educator up for sale. My son Paul (together with his brother Ardjan as Co-CEOs both responsible for the software business) had approached our former employee Carl Bahnmüller via the M&A club Stepstone, of which he was a member. The secret project Wells became active and soon turned into an attractive transaction.



By December 30, we managed to close the sale of Educator. A beautiful and innovative company that matured at the age of 16 and is ready to step outside the Vanenburg family home. As a small-scale player, Educator had gained a prominent position in solutions for higher education. As it was outside of my focus area, this venture never really got my needed attention for further upscaling. Vanenburg with the 'beyond' ERP vision fits better in my 44 years as an IT entrepreneur. However, the high EBITDA of Educator has always been quite attractive and allowed us to recoup our investments from the past.

Unfortunately, due to the Corona crisis, we had to sell this company. My son Paul was able to work professionally with the agency Stepstone, using his experiences as a board member of Cordys and his experiences around the M&A deal with OpenText.

As M&A deals often resemble something like the birth of a child, something that comes at its own time and cannot be rushed, this deal was completed within nine months just before

the end of the year. The deal was completed successfully with Breens Investments, backed by Capital-A Investment Partners, which has been active in the Dutch market since 1982. It improved our bank balance significantly and, despite the COVID-19 crisis, we closed 2020 very positively, creating an excellent basis for the future of our flagship Vanenburg Software BV.

While Educator turned out well after 15 years, thanks to our software development attention, it missed a spark to really breakthrough in terms of sales. The Educator technical platform will function as an important component in the Digital Learning Environment of the Dutch education market leader Breens (member of the Capital-A Investment Partners) and is expected to grow under their leadership. In addition to the education market, this learning Ecosystem can also be used in adjacent markets such as Healthcare and local government.

Hindsight is 20/20

I always think it is a privilege to be able to do my work. Yet, there are more important things in my life than my work. After all, you don't just live to work. The following applies to me: work to live. I wanted to write this book to pass on my past years' experiences to the next generation. I can look back on a reasonably long period in the business — a period of peaks and valleys.

Looking back is seeing sharply. Our American friends know the expression hindsight is 20/20: which means you look back with the sharpest eyes. The successes then fade slowly. However, you can still clearly see the mistakes that you have made. Errors are there to learn from, and achievements are to be forgotten. That keeps you in balance.

7. Crossing the chasm

Adopting the theory

After 12 years and a multi-million-euro investment, Vanenburg is strongly positioned as a leader in low code for 'beyond ERP' solutions and ready to lead the wave of cloud-native app development products. While the wave for low code solutions has been building, we turned to the 'Crossing the chasm' model, introduced by Geoffrey Moore in 1991. Over the years, the model has been revised to address the Internet (1999) and the cloud (2014). As an emerging company, we felt this model applied to our employees, products, as well as the market.

We asked Peter van der Fluit in 2019 to work with us and integrate the model into our strategy and thinking. I met Peter back in the Baan days when we had a strong relationship with the industry-leading Unix partner Hewlett Packard (HP, See section 1.1). Peter had a successful career as VP of sales at HP, responsible for the SAP relationship worldwide. After 16 years with HP, he joined us as the President (responsible for Sales & Marketing) of Cordys for several years. Later as a partner at the Chasm Group, he helped us define 'The Beachhead or Head Pin' segment to scale at Cordys.

Peter worked with our leadership team, consisting of my three sons Ardjan, Bernhard, Paul, our CTO Hans Don, SVP Marketing Huibert de Vries, and the highly experienced team in India. In an intensive exercise with Peter, they designed and successfully implemented a model to respond to the COVID-19 Pandemic for our business. The outcome was our ability to maintain a business-as-usual mindset online.

In Crossing the chasm, Geoffrey A. Moore shows that in the Technology Adoption Life Cycle — which begins with innovators and moves to early adopters, early majority, late majority, and laggards— there is a vast chasm between the early adopters and the early majority. While early adopters are willing to sacrifice for the advantage of being first, the early majority waits until they know that the technology actually offers improvements in productivity. The challenge for innovators and marketers is to narrow this chasm and ultimately accelerate adoption across every segment.

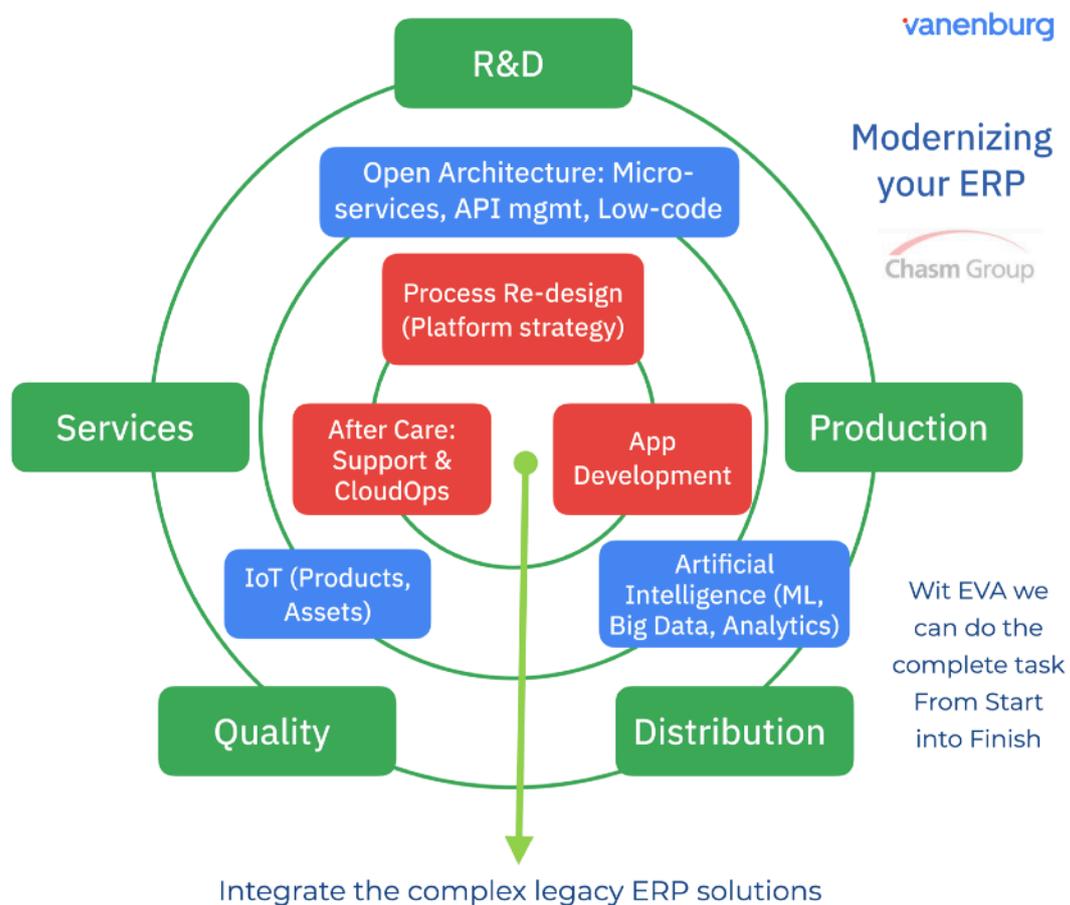
Covid-19

During the Covid-19 pandemic in 2020 and 2021, all our team members have collaborated effectively from home since the first lock-down resulting in an overall productivity improvement. For India I really appreciate the leadership of our team by Saji, Vinodh and Agalya. Under the new circumstances, it was noticeable that they had experience in managing large teams of engineers across different locations back in their days at the Baan

company. For more on this, please refer to the testimonies of our executives from Coimbatore in this chapter. Throughout this book, I've made multiple references to the Baan-Culture that persists today.

That hard work—not always easy with people working from home and several falling ill to the virus—allowed us to continue supporting our customers and delivering on our promises. We also achieved our goals for the launch of our low-code development tools. Our resilience during this challenging time, without lay-offs, reduced incomes, or other negative impacts for our employees, is important to our leadership team and me. We have always had and will always keep this mindset, making us a strong and responsible company for our employees. We are now Crossing the chasm and welcoming "early majority" employees while engaging with "early majority" customers using our new tools to modernize their IT.

Core components to execute the 'Crossing the chasm' model



Innovation

The Baan culture is the cornerstone for our Crossing the chasm strategy to execute first on customer intimacy. As I learned at Boeing at the time, the most ideal situation is for an

ultimately generic and scalable product that can be sold as a subscription en masse to be challenged from the initial phase to realize disruptive innovative business concepts at a leading market leader. Like now in our case at Valeo, as large automotive supplies. Moreover, this branch is the most representative of complying with the future industry 4.0 requirements.

R&D has always been our strongest input in our business model. For the last 44 years, this has always had my core interest and I was always personally responsible for the Company's R&D budget where we spent hundreds of millions of euros on the generic development of Technology that was not yet available at the time.

In the years I have spent many visits (I think close to hundred) to our location in Hyderabad, India. Usually, four times a year I have been intensively concerned with the adoption and assessment of innovative components from our software Factory. I was then intensively busy with our complete development team in India for a few days, with the constant assessment of the delivered products. As a result, I have always been (and remained) to translate our generic solutions unto our most innovative customers, in which last century our market maker Boeing was the stimulator was for entering the Nasdaq and Amsterdam Stock Exchange in 1995.

Our ERP package was crucial at the time for the process innovations of all Boeing factories worldwide, which wanted to get a better grip on all logistics processes that were previously carried out with various individual mainframes as independent instances. Now 40,000 users had to work together in the renewed UNIX environment where all computers were connected in one network to carry out the end-to-end logistics processes with one software instance with 40,000 users.

Boeing installed a special executive committee for this, in which many Boeing IT and Business top executives participated, together with the leaders of their suppliers. For this, I had to go to Seattle a few times a year, together with Oracle's President. I had to ensure that our input with our products did not form a bottleneck in the progress of their colossal business reengineering processes.

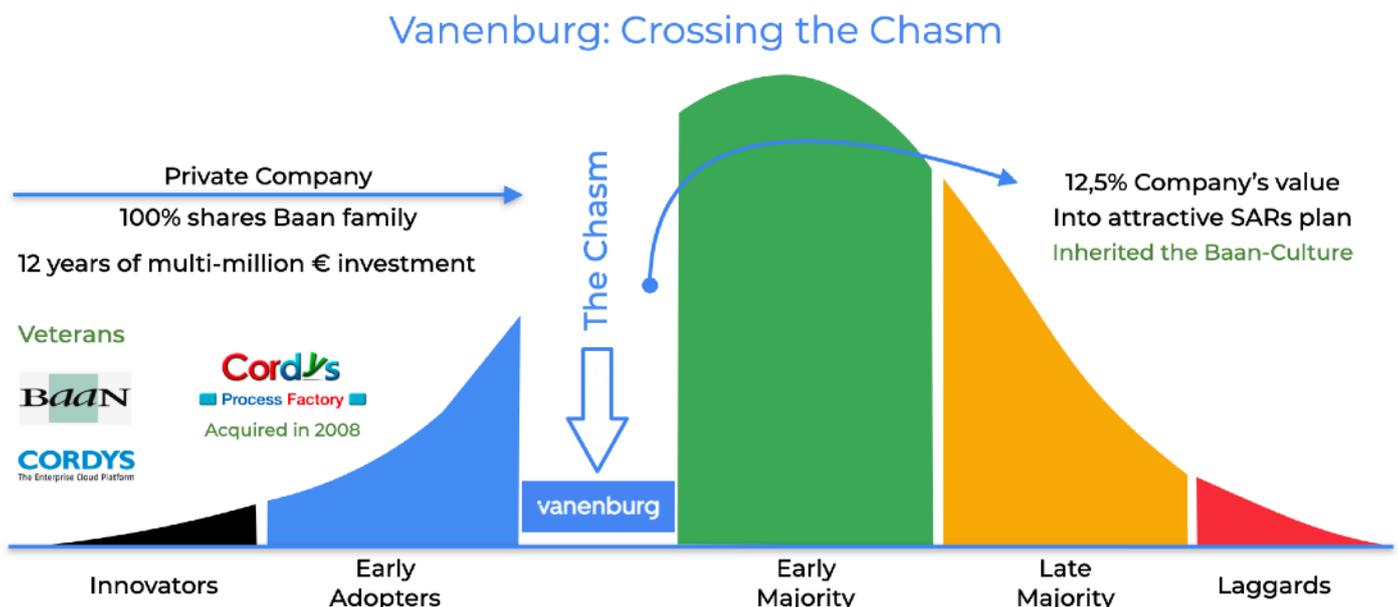
Because of my intensive involvement with our R&D team, I was able to make a contribution to this to this important project of Boeing. As a result, I experienced later that the strategy of customer intimacy inside big influential innovative companies has been crucial for us by realizing a breakthrough, with disruptive initiatives. But as with everything, the lifespan of innovation is often temporary and over time is often: going up, shining, and getting sinking. This means that the innovative start is threatened by the obsolete legacy over time. In the case of Baan Company, we had succeeded with an innovative Unix approach, to disconnect

all components such as databases, operating systems, and hardware systems and compose with our Unix Baan-Shell as a single computer system. As a result, we belonged to the top two ERP software companies, together with SAP.

But technologically we were overtaken by the breakthrough of the internet, with innovative components such as the Netscape Browser and the possibility of data storage in the cloud. Through my farewell to Baan Company, I was no longer trapped with legacy chains to the still interesting maintenance yields of the now outdated complex systems, which turned out to be good Money-makers for the EBITDA for years supported by a Vendor Lock-in monopoly. I then burned all the ships behind me and started again with Cordys to see the network (internet) as the computer. In the second part of my autobiography 'systems of differentiation,' I described this extensively.

By a private takeover of the Cordys Processes Factory from the Cordys Company in 2009, I started again with a core Team Baan/Cordys employees to start from Scratch again but now based on IaAS (Infrastructure as a Service). Now we were able to work mainly with open Source components, together with the powerful Google Tools, with which we built complex apps, with BigData and containerization tools, such as Kubernetes to enrich these innovative apps with AI/ML.

As mentioned earlier, we see our employees as members of the stakeholder community, more like a family. Our many years of investments in IT innovation come into a phase where we can reap the benefits. We see plenty of attractive opportunities for our employees via an attractive Stock Appreciation Rights (SARS) bonus construction. The ability to do this gives me a deep satisfaction, sharing 12,5 % from the Company's future market cap, while at the same time it is a very good instrument of staff recruiting and retention.



Necessary support from Google to penetrate in big enterprises

Over the last months, we have seen an enormous penetration of Google becoming the cloud Data Warehouse data solutions leader. We invested a lot in our Google relationship over the last years, and in recent months we have seen an uptick in interest with the expanded Google sales team.

We have had a few engaging, collaborative sessions with the Dutch Google team that focuses on large enterprises. Our deep ERP experience makes us a very interesting contributor to the recent Google-SAP partnership. This initiative uses Google's BigQuery to improve all ABCs- end ERP data with machine learning tools and build our (generated) low-code solutions at the front end.

8. Retrospect

Experiences from the past

Valuable lessons gained in my career

1. Customer-oriented innovation must be implemented and serve as a scalable product.
2. For an international breakthrough, you need a market maker (At Baan, this was the Boeing Company. For Vanenburg this is Valeo with 112,000 employees).
3. Legacy solutions are too complex for today; have the courage to burn your profitable legacy ships behind you by making a new start.
4. Disruptive innovations must reinforce the innovation of the past.
5. A Pace-Layered application Strategy decouples reliable legacy systems (1st layer); provides space for 'end-to-end' business process optimization (2nd layer); offers the knowledge worker a digital view for his task execution (3rd layer) which results for the first time in a better control of the 'vendor lock-in' situation.
6. SOA-BPM solutions as drivers for operational excellence will in the future be limited to registration systems for the (inbound) organization; smart apps integrated as microservices provide 'Reinvention at the Root.'
7. CTR (Collaborative Task Reengineering) constantly enables the knowledge worker and his supply chain buddies to improve workflow processes and integrate them with his IoT environment. 'The browser is connecting the Dots.' Here cyber security has the most value, and sensitive data exposure is also limited. Customer-oriented innovation must serve as a scalable generic product.

Valuable concepts that are still useful

1. Undoubtedly ERP / CRM / PLM is doing very well today, but it is not the place to innovate and distinguish your organization.
2. Limit the complexity of the backend systems as transactional vanilla solutions and integrate them into the layer of the business processes.
3. The use of a Business Operating Platform in which both transaction-driven silos are integrated with a human-centric workflow can extend the life span of legacy systems.
4. Collaborative Workspace connects transactional and human processes through which an enterprise can collaborate externally with entities (order, customer, product, etc.)
5. SOA-BPM solutions can connect the now outdated logic from the legacy silos with innovative PaaS solutions, which are still limited as transaction-driven systems.
6. Dynamic Case Management can now also be realized (such as late binding) in the execution of the task (workflow) of the knowledge worker.
7. One-off (uncoupled) storage of personal data simplifies the sensitivity of legacy systems; semantic big-data solutions inform citizens about their privacy management; the key to limiting the power of the Frightful Five.

Things that I would never do again

1. The focus on shareholder value is the killer for future innovation.
2. No innovative innovations without the involvement of an influential customer (market maker).
3. Cash is King. Try to avoid financial dependence on anyone, especially that of a Venture Capital partner.
4. Time from innovation to product seems no longer the bottleneck, but customers' acceptance of new products is most difficult. Focus much more on simplicity and quality.
5. Attracting greedy executives who have their focus too much on extreme growth with a catalyst for influencing the market cap for their own incentives.
6. Sales & Marketing are cost drivers with little added value for the customer. Customers appreciate support services much more instead. Let the services organization carry out the sales processes and reduce your costs by 30%. Customer Intimacy delivers much more with the strategy 'Land and expand.'
7. Avoid building complex mega solutions. The total costs of (partial) solutions must be limited to less than € 1 million.

Things that my successors have to do

1. Reduce the ongoing deployment costs by completely cleaning up the legacy systems and lay a good foundation for Industry4.0.
2. Focus, as Tech entrepreneur, on an open-source Ecosystem where smart process apps as SaaS components double the productivity of the knowledge worker, protect the customer for the dominance of the legacy Industry incumbents and limit the influence of the Frightful Five Digital Giants
3. Use less complex task-driven (workflow) processes integrated with IoT and big data to realize better business in which everything is a 'handshake' with a focus on Customer Intimacy.
4. Continuous learning is the basis for Industry 4.0; 'Just in time learning' must substantiate content that drives the smart process apps.
5. Cooperation with universities for the training of the executive of tomorrow, where gamification forms the core component for a best practice curriculum.
6. Industry 4.0 solutions form the basis for smart Healthcare; the new generation of ZIS systems uses the same IP components to realize extreme savings in healthcare.
7. See the government as a launching customer who cannot do without the Tech entrepreneur.

How bookseller Josep's project got a bit out of hand

Blog from my son Ardjan

A parallel between the Sagrada Família and IT modernization

It is this time of the year that big crowds in Europe (and also some other places of the world) are traveling for their well deserved summer holidays. Many of us are visiting exotic beaches, mighty mountain ranges, quiet forests, stunning waterfalls, or vibrant cities. In this blog I would like to take you on a tour to the very famous and well-known Sagrada Família in Barcelona, Spain – an ancient basilica that never gets finished. I do see a lot of similarities between the history of this artistic building and IT modernization.

IT modernization is all about:

- *Old legacy systems*
- *Preventing vendor lock-in*
- *Businesses urging for innovation*
- *The role of data*
- *Etc.*

I also see all these elements in the history of this unique building.

Starting the project

It all started in the year 1866 with a bookseller and philanthropist Josep who



wanted to do something about the declining influence of the Church in society. Thanks to several donations he bought a piece of land (read: he had convinced his key stakeholders to set aside a budget for his project) and on March 19, 1882, the foundation stone was laid (or the first line of code was written) for a building to the neo-Gothic design of the first architect. Founded by and for the people – these days we would say true citizen development. The scope was defined, the project relatively clear, and the end goal obvious, so the project could start according to a good Waterfall method.

Overcoming project challenges

However, due to serious disagreements between the architect and the developers, this architect soon decided to withdraw from the project. He was succeeded by the man who would become known as the visionary behind the Sagrada Família: Antoni Gaudí. Gaudí started building the crypt and thanks to an unexpectedly large donation, he was able to adjust the design of the church at an early stage. His proposal was to leave the neo-Gothic design for what it was. He designed a much more monumental building with innovative shapes, structures and building techniques.

Indeed: the new project manager listened carefully to the changing demand from the business and took on the project, the call for innovation was loud & clear, the scope creep had started. Within no time, the management board approved the adjusted budget and the development team was set to work with new courage.

The complexity of this project soon increased and as a result, the architect & scrum master was overwhelmed; from 1914 Gaudí devoted all his time and attention exclusively to the ‘temple of reconciliation’ so he stopped all other work. This immediately explains why there are not many other large Gaudí buildings from after this year. He was so involved in the project that he even took up residence next to the construction site. The success of the project had meanwhile become the success of the scrum master & architect and his mission had to succeed at all costs.

In 1923, he completed his design for the nave of the church and the roof. And two years later, in 1925, the first bell tower was a fact. Unfortunately, this was the only tower Gaudí would ever finish. Six months later, he was run over by a tram and so this special man came to a tragic end on June 10, 1926. Fortunately, he left a beautiful legacy but it was far from finished.

A true project crisis

A new project owner appeared on the scene and a close associate of Gaudí took over. Under his fanatical leadership, several parts were completed, but the next crisis presented itself. A fire was started between 1936 and 1939 and destroyed the construction site. With the burning down of the construction site, to everyone's horror and regret, very important work was lost: Gaudí's original designs, drawings and models.

The project had become rudderless: all sprint plans, designs, mockups and prototypes were lost. The believers (who were assumed to be in desperate need for the new solution) were still dependent on other smaller chapels in the Barcelona area more than 55 years after the start, but in fact that worked fine too. And that was a good thing because the promising new system that would solve all bottlenecks was still far from acceptance testing and go-live.

Again a new project owner, budget & plan

Gaudí's successor apparently had to leave quickly, because a new architect came on the scene who had collaborated with Gaudí. He made a lot of changes to the designs (read: the very urgent process improvements were implemented, because the business wanted to use the latest innovations and see some low-hanging fruit in the new system) – and the work on the church continued steadily. In the year 1955, the project received another much-needed financial injection thanks to a major fundraising campaign. The management obviously did not dare to kill this risky and megalomaniac project, so again the budgets, timelines and scope were adjusted upwards – of course with the strict request that it really had to succeed this time.

Measuring project performance

Fast forward to the turn of the century: the construction progressed little by little, year after year, but meanwhile, the first parts were also ready for the necessary maintenance work and renewal. 5 different generations of creators and builders took the complexity of this monolithic structure to unprecedented levels. The now 100-year-old legacy made itself felt more and more, so the 'law of diminishing returns' took effect. Each new architect has left his own stamp on the design, which in turn caused the necessary confusion among the executors. In the meantime, the business (read: the people – because that's how it all started) was completely out of sight and the goal of the project (to increase the role of the church) had also been overtaken by reality. In 2002, Barcelona celebrated the 150th anniversary since the birth of the Sagrada Família. This strikes me

personally and it feels a bit like celebrating the thousandth bug that has been logged by the customer – but that may be just my negative interpretation of this beautiful milestone.

And 2010 was another important milestone in the history of the Church. Although the church was not yet finished, Pope Benedict XVI consecrated the church. Apparently, the business owner had decided to use the ‘solution’ in phases, even though the Development phase was still in full swing, the User Acceptance Test still had to be done and the final scope was far from being reached.

Today 70% of the work of Sagrada Família has been completed. Work is currently underway on the construction of the six central towers. The intention was that the Sagrada Família would finally be completely finished in 2026. That would have meant that it could be admired in its full glory for the first time in 160 years. Due to the Covid situation, the church has been closed for many months in recent years, and therefore the main source of income – the sale of visitor tickets – dried up completely for a long time. What the new planning looks like and what the expected go-live date is, is a big wild guess. What has become fully clear is that the original goal no longer is relevant so the project itself seems to have become the goal.

So much for the story of this ancient monolith. And now back to Vanenburg.

The Vanenburg alternative

Almost in the same year as the bookseller Josep started his mission in Barcelona, Anna Frederika van Pallandt van Goltstein and her husband were allowed to call themselves the new owners of Kasteel De Vanenburg in 1868. They gave the assignment to design and build a new house. The foundation of the castle remained intact with the new construction; the outbuildings were demolished and replaced. Fortunately, the scale of this project turned out to be a bit more manageable – instead of one monolith that was built over 150+ years, it was decided to develop several smaller buildings (say microservices) that all had their own speed of change.

With an eye for architecture and history, many renovations followed, especially after the purchase by Vanenburg Group in 1996, but always based on the principle of adding business value and keeping the original goal in mind. In other words: continuous improvement while the legacy is slowly dismantled, the generic elements are re-used for the purposes for which they were designed and new innovations are added. As a result, Kasteel De Vanenburg also has its roots

in the distant past, but today we can use all the modern facilities that the 17th-century estate has to offer.

Your modernization project

And now your situation: do you feel the Spanish rigidity of a Sagrada Familia project or do you opt for the Vanenburg way based on a tailor-made approach and continuous innovation? We believe that the time of big monolithic systems is over and that modernization of enterprise IT can only take place by making smart use of the right modern building blocks (such as Google Cloud) in combination with an experienced team and a smart approach in co-creation with you as a customer.

Vanenburg is happy to help you design and build your dream home, but based on the 'leave and layer' approach:

- Control your core monolithic & legacy systems by keeping them generic;*
- Open-up your core systems so that missing functionalities and custom components can be added as flexible building blocks;*
- Innovate by applying technological innovations to not only save costs, but above all to enable new revenue models;*
- And over time, replace more and more of that old legacy which is holding you back and become more expensive to maintain.*

To sum it up: we understand application modernization in combination with data management. To make it work, integration with underlying systems and modern cloud infrastructures also play a crucial role. So we know the complexity of Gaudí and his men like no other, but we do it in our own Vanenburg way. We are looking forward to applying our knowledge, ready-made solutions and unique approach for your organization!

40+ years as IT entrepreneur

We still benefit from my 20-year Baan period in the last century. The largest category of my 15,000 LinkedIn connections is the group of old Baan employees and relations. Dozens of start-ups have emerged from our initiative, and at least one hundred of our engineers now perform top positions in the world's largest IT industry in India. So many of them are still loyal to us. Many customers still work with the old Baan products. There are many opportunities for innovation in this market.

Burn the ships behind you

This journey has given me enormous knowledge of what is happening in our field. Because

- as it were - I had to burn the ships behind me twice, I could fully focus on the new technology wave in front of me, unhindered by legacy.

Through my experiences from the past, I think I am now perfectly capable of providing a good insight into what we can expect in the IT field in the coming years, especially the digitization of society.

In that light, I thought I would gather the facts from my experiences of 40+ years of IT entrepreneurship in this book. I think it gives a good picture of the information technology developments over the last years as a driver for business improvement. In particular, the transition from what Gartner describes in the first layer of their 'pace-layered strategy' on 'systems of record,' which are now being integrated into a 'business operations platform' in the 2nd layer: 'systems of differentiation,' of which Cordys is still an excellent example.

The business entities from the legacy systems are linked in this second layer. But we are also increasingly seeing replacements emerge for this legacy software. For instance, complex platforms such as Salesforce offer this functionality as cloud software from app Stores. Many of their partners know how to join forces here.

Our initiative of a few years ago in setting up Cordys Process Factory (CPF) was specifically aimed at quickly building workflow apps for the third layer: 'systems of innovation.' 'Again, we were ahead of our time. The board of Cordys did not yet recognize this as strategic and decided to close our Coimbatore division that was working on this. I am glad that we were able to pick up and continue this direction at Vanenburg. We have not resurrected the CPF product, but we developed it again based on the concepts of big data and the IoT. This investment over the past years has helped us greatly as an innovative player in the field of the new microservice architecture. We now see more of a focus on enriching the backend processes with the tasks (the workflow) of the knowledge worker in the supply chain.

This new generation of what Gartner calls 'The internet of innovation' gives a new dimension to building innovative apps that gradually replace the functions of the complex legacy systems and are now being linked to the digital world around us. Participation in this new generation of Industry 4.0 solutions is quite disruptive for traditional software companies.

At Vanenburg, we don't carry the burden of software versions and solutions of the past and are therefore better positioned to integrate 'systems of record' and 'systems of differentiation' (layer one and two of Gartner) with the 'systems of innovation' offered by companies like Google with their container services.

Acknowledgement

This book aims to provide an insight for the enthusiast looking to enrich their knowledge and, perhaps for the techies, an in-depth look at different areas of the IT past and future.

I first made a rough translation from Dutch to English via Google translate not to burden the organization. My loyal friend and employee Ramanathan was willing to help me to create a better grammatical English version. For me, Ramanathan has been one of the few people with whom I have worked closely since the Baan period and who knows my thoughts through and through, especially around innovation. In addition to his trust and friendship, he also supported me during critical moments, of which I am still reaping the benefits. I want to thank him warmly for his input, not only for the linguistic corrections but especially for his advice on a better description of the flow of the events of recent years.

With our Oikonomos foundation, we have been able to do many beautiful projects in India for many years. My good friend Jacob Gopalswamy was here for my great support. My friendship with him and his wife Jackie means a lot to me. Many times, in the last few years, I have met them together with their two sons Gerrit and Ian. Gerrit is a physician doing his master's in health administration at Cornell University in the New York area. Due to his good academic performance in Chennai, he was offered a two-year course in the USA. He now has the unique opportunity to delve into the business side of the healthcare industry. During my visit to NY, he expressed his interest in Healthcare IT and my autobiography. He offered me the opportunity to formulate my book more directly. I have enjoyed working with him in this endeavor and appreciate his interest and motivation.

While I was working on the last few chapters of the book, I was contacted by our old friend and former employee Ronald Haantjes who was visiting the Netherlands from Canada and invited him for a coffee at the castle. Ronald worked for us at the Baan Company for 11 years and in the first 4 years of Cordys, where he helped us expand the business from Burlington, Canada. After Cordys, Ronald was successful in the Microsoft Dynamics channel, during which I often challenged him to take a look at our Eva and Collabrr concepts instead of being stuck in the 'old-school' solutions.

During our recent conversation, Ronald became enthusiastic about what we were building and read the preliminary version of my autobiography. He spontaneously offered to make some improvements to the Dutch English translations. Especially his deep experiences from Baan and Cordys provided a professional addition for which I am very grateful to Ronald, and I hope that this update of renewed business knowledge can be of use to him in building his business from the Golden Horseshoe.

The work done by Ronald has considerably improved the readability of my autobiography.

Together we formed a strong team with Ronald always open to my constant stream of detailed improvements. He would carefully rearrange and edit to reveal a more clear description of the added value our IT products bring to disruptive business processes. After all, my goal is to communicate how our innovative approach to business solutions contributes to improving the EBITDA of our customers, and Ronald has helped me articulate that message.

In the process, I am particularly convinced that my close cooperation with Ronald has influenced and improved our sales and marketing messages and our ability to penetrate the low-code market with new business solutions.

Ravi S. Iyer was so kind to assist us with finetuning some of the details of this autobiography and offered to write a book review after the publication. In the meantime, he shared his experience and view on the Baan Company as a Software Development pioneer in India on his blog in late December. We know Ravi from his days at Datamatics, my first business partner in India, and when he came to the Netherlands to carry out a project for us. Ravi is now a retired software professional who has shifted his attention to being a Social media writer on spirituality, religion, and miscellaneous topics. He has provided helpful insight into early and current Indian and global software industry events and at the Baan Company.

(For Ravi's input, see part 1 chapter 5 (Strategic choices))

Now I am in wonder and gratitude. It could all have been much worse. That my life might be meaningful, both personally and also in my business. It is my wish that God's work of grace will sprinkle our posterity. May the work of Oikonomos, which we did in the past, be a blessing to God's kingdom. I have written an extensive report about the period between the sale of De Vanenburg and the repurchase of the castle.

The primary purpose of this book is to share my experiences with my family. Many disappointments came up again during the long, uncertain phase in this process when it appeared that the original buyers could not finance the deal. As a result, I failed to maintain my intended goal of securing a majority stake in Cordys. Ultimately, we persevered and are proud owners of a growing software company supporting Industry 4.0, Web 3.0, and the technologies presented to us in the future.

I have shared this extensive report with Andries Bottema. He advised me wisely about this. Do not exaggerate with your perseverance to never give up. Also, look at what you have achieved by facilitating hundreds of employees who have worked intensively with you in the past and the careers they made. If your book had stopped at the chapter on the acquisition by OpenText (the acquisition by Open Text), then this should still give you a feeling of gratitude about what you have been able to do for many people.



This wise advice from Andries Bottema resulted in the deletion of many painful details. Moreover, a person must look more at the blessings he can count than the frustrations of setbacks. I have already written that I also found it helpful concerning the Bible in Hebrews 12: 7 'If you endure chastening, God deals with you as with sons; for what son is there whom a father does not chasten?'

Much can still be learned from 'The Seven Habits of Highly Effective People' by Stephen Covey. He gives the first wise advice about 1: Being proactive. Here he warns us not to worry too much about the circle of involvement, where we have no influence, but to focus on the circle of influence. Then he continues with 2: Begin with the end in mind. He asks you to think about your death and witness your funeral. You see the faces of the people who have come and listen to what they say about you.

Try to imagine what you would like them to say. How would you like to be reminded about your work? Your family and friends, what would they say about your character, about what you have contributed or achieved? With this somewhat confronting assignment, you can find out what your definition of success is.

This 'funeral exercise' discovers what your most important values are and what matters in your life. With this thinking ahead, you develop a compass to assess what you are doing today or whether this is worthwhile and contributes to what you ultimately want to achieve.

Knowing where you want to go makes it a lot easier to determine what the right steps are. You can work hard with being active, but in the end, it has not been effective.

The learning element for me is that you see that yesterday's pain 'doesn't hurt so much anymore.' It has become more of a scar. The trick is to ensure that the pain of yesterday does not become a frustration for tomorrow but is an experience that you can benefit from in the future. After all, learning is usually a painful process. The trick is to distance yourself from both successes and failures.

My recognition to my sons in the business

When closing my autobiography, I want to address a particular word of thanks and recognition to my three sons in the business: Paul, Ardjan and Bernhard. They tolerate me (for instance, in my sometimes dictating drive to keep making changes repeatedly), filter me (in my, sometimes wild, suggestions), advise me (in shaping my vision and transforming it to a business plan), and collaborate with me (in building a foundation for the path ahead). It is a joy and a father's blessing to grow the business together, while making use of their individual talents. Their combined capacities - to repeat myself: together, they are much stronger than I have ever been - makes it easy for me to give them all the space and trust to run our Vanenburg Group operations.

I have had the feeling that with my nearly 45 years of entrepreneurial experience, I have collected many innovative components, which are sometimes difficult to consolidate and explain to today's prospects and customers. For this, I have experienced a lot of support from my boys. Especially over the last couple of weeks, when finalizing this autobiography, it was a challenge to translate my many experiences into a readable book. We have been working intensively together to present this in printed form.

I spent many hours in my library/office at home in the last few years. Sometimes it seemed as if I was still working on a dissertation. I expect that my many hours invested in this autobiography will contribute a big push to our current 'crossing the chasm' journey. I have a lot of trust in their way of integrating my ideas into their business plan. Because together we are convinced that we can help others in modernizing their enterprise IT, by facilitating disruptive innovation.

To the outside, this will be recognizable from the 2nd generation that now follows in my footsteps and hopes to continue my work, whereby I, more and more at a distance, wish to follow this for some time. Indeed, Deo volente.



My three sons in business, from left to right: Paul, Bernhard and Ardjan

Then Kipling comes to my mind again:

*if you can dream and not make dreams your master;
if you can think and not make thoughts your aim,
if you can meet with triumph and disaster
- and treat those two imposters just the same; -
you'll be a Man, my son!*

If in the memories of the past, my shortcomings often predominate for me, then only one medicine remains: 'And the blood of Jesus Christ His Son cleanses us from all sin.'
(1 Johannes 1:7).

Soli Deo Gloria.



A handwritten signature in black ink, appearing to be 'C. J. ...'.

Jan Baan wins the Golden Computable Award 2018

Computable honors software entrepreneur for contribution to 50 years of ICT

Entrepreneur and software entrepreneur Jan Baan has been named the winner of the Golden Computable Award by the ICT trade title Computable. When questioned which Dutch person, IT organization, or ICT development had the biggest mark on the ICT sector in the past fifty years, Jan Baan was most often mentioned by Computable readers.



Editor-in-chief Sander Hulsman presents the Golden Computable Award to Jan Baan

A selection of the responses: 'With his company Baan Company, he has put the Dutch ICT sector on the international map.' 'Baan is a visionary: one who was always ahead of others, with choices such as Unix, 4GL, factory approach of software development, SOA, bpm, model-driven development, PaaS, and software development in India.' There is also praise for the global expansion of the ERP supplier. 'Companies worldwide

run their operations on Baan software, including several Fortune 500 companies. 'To my knowledge, no other Dutchman has had such a profound impact on this industry than Jan Baan,' says another reader in a lecture. The lectures also often mention that many ICT specialists and leaders have emerged from the 'Baan-school' who later took their knowledge and experience to countless other ICT companies.

Boeing

There is much appreciation for the deal that Baan closed in 1994 with aircraft manufacturer Boeing. Those big customers and the subsequent stock exchange listing brought the company to the top, and Jan Baan belonged to the richest entrepreneurs in the Netherlands at the end of the nineties.

Readers also find it striking that the now 72-year-old Jan Baan is still stirring in the ICT world in 2018. After the loss of the illustrious Baan Company, he remained active in ICT through companies such as Cordys and Vanenburg. In 2009, Baan made striking remarks in which he more or less pronounced ERP software in a vision on business process management (bpm). In 2005 he published a book with his vision on the rise and fall of Baan Company.

Jan Baan received the 'The golden Computable Award' at the ICT trade fairs Info- security and Data & cloud Expo at the Jaarbeurs in Utrecht on Wednesday, October 31, 2018.

'I feel like a pilgrim, walking on the path to the world of tomorrow'

They called him the Dutch Bill Gates. Then he fell deeply. Now there is his autobiography, with the subtitle 'Profit by loss.' Reformed IT entrepreneur Jan Baan (72): 'Through technology, God reveals more and more of his abilities.'

The book will probably not bring him the AKO-literature prize, but it is an interesting and an enjoyable read for the Silicon Valley enthusiast and IT entrepreneurs. *My life as an entrepreneur. Profit by loss*, is the workpiece which is released in-house.

In the eighties and nineties of the last century, Baan Company was perhaps the biggest success of the Dutch economy. Out of nothing, the reformed brothers Jan and Paul Baan from Barneveld built the sixth largest software company in the world, with programs to integrate business processes such as accounting and inventory management. The company received a stock exchange listing in Amsterdam and New York and was worth more than 20 billion guilders at the peak.

Trade magazines called Jan Baan the Dutch Bill Gates. He and his brother even purchased a private jet — a Falcon 900 EX — to fly the world comfortably and more importantly, to be at home on weekends and not having to work on Sundays. It went wrong at the end of the last century. The share price plummeted when the sales figures were artificially increased.



² <https://fd.nl/weekend/1257178/ik-voel-me-een-pelgrim-lopend-op-het-pad-naar-de-wereld-van-morgen-mhb1cacpBUUs>

Two debilitating lawsuits in the US, filed by shareholders, gave the last push. In 1998 Jan Baan left as Chairman of the board the company. He was also forced to distance himself from his Falcon. 'With profit, I actually flew all those years for free.' says Jan Baan in his office in Lunteren, three walls from top to bottom filled with seventeen century, beautifully bound books on theology.

In 2000, Baan was sold. The company arranged for tens of millions with angry investors. Paul decided to dedicate himself exclusively to charity. Jan also partly dedicated himself to charity with the foundation Oikonomos (Greek for steward), but soon, he also started a new company, Cordys. Although again very innovative, the success of Baan Company was by no means replicated. Nowadays, Jan Baan, who wrote the book *The Way to Market Leadership* appeared in 2005, holds various lectures and he has started a new software company: Vanenburg Software. The daily management is in the hands of two of his sons. Baan acts as an advisor and driver of innovations.

The 72-year-old entrepreneur — who looks great thanks to daily Nordic walking sessions — is calm when he looks back on the collapse of the Baan empire and the loss of wealth. 'Nowadays I no longer need security in my cozy village, which is very nice'. 'I do not think that any Dutchman has ever become billionaire as fast as I did: it happened in one day. I am still a wealthy resident of my hometown Lunteren. I do not have to make any effort to be included in the Quote 500.'
Jan Baan once stood on spot 3.

How did you process the downturn?

'I retired for months here in my office. To process the grief of the business's past, and to learn. The best learning process takes place from a situation of pain. The road to the top is exciting and requires a lot of sacrifices. The way down is paved with slander, jealousy and frustration.'

Did you ever doubt God in that difficult time?

'No. Looking back, it is precisely thanks to God's grace that I did whatever I did. He has given me the insight and strength'

The VPRO made a telefilm, the chosen one, based on the rise and fall of Baan Company. The film received two international awards.

'That film has hurt me deeply. It gave a completely distorted view of reality and openly mocked our Christian philosophy of life.'

Did that period bother you?

Unfortunately, I have always, with conviction, burned the ships behind me instead of preserving the old ones. I feel like a pilgrim, walking on the path to the world of tomorrow. ‘

What does that world look like in your eyes?

‘Most of the money is in a handful of companies. This year, Apple or Amazon will pass the thousand billion dollars in value. Amazon can blow away Albert Heijn just by bullying. It will not happen soon, but the idea alone is frightening. There are three others: Google, Facebook and Microsoft, it is not for nothing that they are called the ‘frightful five.’

What does that bother you about?

‘My objection is: they are fully focused on entertainment. They add nothing to improving the way companies operate and how people can carry out their work. My latest dream is to bridge the gap between the innovations of the tech giants and new business processes. Children often have finer IT stuff at home than the outdated applications with which their parents have to do their work. The trick is to redevelop the techniques of these ‘frightful five.’ for the working man. That has hardly been done.’

Is it not too expensive? All old IT must then be cleaned up first.

‘Wrong! It is precisely the continuous improvement of the old IT systems that ensures high costs and outstripping budgets in IT projects. I say: leave the old stuff alone and put all your energy and money into simple and handy solutions. Compare it with the car industry. The customer buys a car and does not have to worry about what is under the bonnet. That all works. In any case, it is good enough and requires no expensive adjustments by the manufacturer. It is about coming up with new applications to improve the use of the car. ‘

Are changes to the old not necessary due to privacy requirements and legislation?

‘We think we should protect everything. I am for more privacy and security, but only where the information adds value.’

Where is that?

‘Let me order at the last minute something anonymous and only if the postman delivers the package to me, will he have access to my secure address data.’

How do we organize something like that?

'If we quickly decide to store the personal data, such as the population register, only once in a strictly secured government cloud, then nobody needs to store my private data in their system. With the current technology we are able to add this data to the business processes only when a competent person really needs it. As a citizen I can always trace who — and under what circumstances — accessed my personal data.'

Organizations have to deal with controls and regulations. They cannot just change their way of working anyway.

'All those unnecessary compliance and privacy rules are the death blow to innovative thinking. It is also not sustainable, because it denies the big change. We irrevocably move from the power of concerns to the power of knowledge workers. I call it the arrival of the intrapreneur. '

What does such a person look like?

'Young, expert employees with IT knowledge from a young age, who own a smartphone with all sorts of apps and applications to facilitate their work.'

What are they doing with it?

'They control the entire work process and are also responsible for it. Through their smartphone they have all relevant information, so they do not have to consult the manager before making decisions. They take decisions themselves and thus continuously improve the work process.'

If everyone acts according to their own insights, does it not become a chaotic?

'No. The advantage is that small IT innovations take place continuously and at lightning speed. So, no more complex and expensive projects. In fact, many of the apps can be developed by the employees themselves. Imagine what it does with the learning capacity and ambition of those young people. You can have something generic built, but everything will be different if the masons have the conviction to set up a cathedral.'

I think that many reputable IT companies do not agree with you.

'No, that will be clear. The profits of these large IT companies are largely realized through the maintenance and 'improvement' of the old systems.'

What does it mean for the labor market?

'Good news. I predict a cost reduction of 50% on IT housekeeping and at least a doubling of productivity. So, there is a lot of time for other things '

Or half is fired?

'I think the quality of the work goes up. A doctor suddenly gets an hour for a patient instead of a quarter of an hour. An official can be trained. And furthermore, we hardly have any idea what new services will be added.'

Do you see it put into practice?

'Barely. But I hope that the government, as a launching customer, sets a good example. Very important. Without government, we never went to the moon. If they listen to me, we can get the best government in the world with better facilities, better healthcare, more security. Ultimately, the government is also our most reliable partner. '

Can the government do this?

'Well, when they finally start thinking from the optimal result instead of complying with regulations, and they do not linger in the past. An important reason for all the dramas in the government is that IT is still being thought about as we did before the arrival of the internet. They are throwing billions across the bar with solutions from yesterday to tackle the problems of the day before yesterday.'

Is an intrapreneur still a human being or more than half a robot?

'Let me put it this way: robotization and artificial intelligence reinforce the creativity of human thinking and acting.'

Are you, as a religious man – just like some scientists and entrepreneurs of name and fame – not afraid that artificial intelligence takes over control of man?

'No. God reveals more and more of his ability through all this technology. It strengthens me in the belief that there is a Supreme Being who directs and supports everything. That is not such a crazy idea?'

It depends on who you ask.

'Everything has been provided for a long time. For example, I believe that we would not have orderly life in a city like Mumbai if we did not have access to software. In it I recognize my divine profession.'

Can we tinker with man?

'No. Man is incredibly beautiful and cannot be thought of as he was created. Tinkering is not necessary. God is much more powerful than we think. He laughs at us and says:

'I have already had your DNA for a long time.'

[Do you not have a problem when you see how technology is able to extend our lives?](#)

'Some brilliant entrepreneurs have become so conceited that they think that we as insignificant people can realize eternal life here. If God says: now it's over, then I hope to deal with it in a relaxed way. A Christian is on his way as a pilgrim and has hope for a life after death'

[I think so, but thanks to the technology that you have acclaimed, it is becoming increasingly difficult.](#)

'I do believe in continuous improvement. Bach was able to make beautiful music, solely because he had listened carefully to previous Italian masters. If I can make a better heart valve from plastic, fine. I then add something to your options. But without cloning or creating a new life and perhaps a monster.'



Interview Reformed Daily

Evert van Vlastuin Febr. 23, 2019

The entrepreneur who found a profit in the loss

It had to go wrong once, says Jan Baan. Otherwise, a monster from the private plane would have crawled today or tomorrow. Man is not fit to always live in luxury. But because of God's mercy, the pain of loss can also be enriching.

The day always starts with a shower. First warm, and then ice cold for a minute. 'Bammes! That gives me a bump of energy and enough for the whole day. That's how I've been doing it for forty years.' He smiles at it. The emotion is not that far away. Also, tears are not that deep. Occasionally a few roll on his shirt. 'With a bit of Bach, I feel them coming up soon. Or during a church service.'

He has enough energy. He speaks quickly and persistently. A conversation with Jan Baan is an exercise in listening. He easily jumps from the petabytes to the second coming.

What goes first: talking or thinking?

Resolutely: 'Talk. But then I have already thought. To me, talking is very quick thinking.'

Silence is not me, you said once. How is that now?

'That depends on where you hit me. In the train to Schiphol I am just an ordinary man, with a book on my lap. When we walk into a church, I say to my wife: go ahead first. Visiting a reception with strange people is not at all me. Somewhere I am a bit shy. But as soon as I am in my role, I compensate completely. When I'm on a podium, I take everyone in.'

What do you choose: jacket or sweater?

'Jacket, but nowadays more often without a tie.'

Rich or godly?

'God fearing. Only then you are rich. Without godliness, wealth is the deepest poverty.'

Earning or giving money?

'To give away. There is so much love and joy in giving away. You should not be stuck with what you do not need. When things went well, we established the Oikonomos foundation as a family. We put the profits into development work. Gradually it became more missionary work, with the thought: Your kingdom come.'

He is sitting in his 'own loft,' turning in his comfortable chair. In the middle is a small light

oak desk, with a curved screen. The image is razor sharp. Mouse, keyboard and screen are thin and light. The walls are full of antique books. The Erskines are standing next to Teellinck, Lodenstein and Van der Groe. A series of Calvin has arrived in Latin. From Peter van Maastricht he has a book with notes by Rev. R. Kok. He appreciates John Owen about the Hebrew letter.

'I spend all day working on the apex of insecurities, but I am here surrounded with the pinnacle of certainties.' Between the books there is also a picture of his son Jan Peter, who was murdered when he worked as an Evangelist in Nigeria, in 2003. 'Every day I look at him once. We see only a little of the glory of Christ, but he can see Him in all its glory.' Through the window he looks out on a spacious garden and a covered veranda. He is happy with this house in the center of Lunteren.

He has just recovered from a flu, but 'it's not much,' he says. That is why he reads 'a bit of an easy' book: 'SAP Nation: a runaway software economy' by Vinnie Mirchandani. Software is still the passion of 72-year-old Jan Baan. On the screen he works on a lecture about this. As usual, it is full of states and graphs. That's how he did it when Baan Company broke its wings in the nineties.

You printed the biggest mark on the IT sector in the Netherlands. You received the Golden Computable Award for this at the end of October. How important is that prize for you?

'Not for me, but for my company. Just as a butcher does his best to make the best sausage, so do I. Vanenburg Software is a small company of about 120 people. Furthermore, that prize is just a plastic thing.

That prize is based on votes that have been cast. Through LinkedIn I have around 10,000 contacts among professionals worldwide. Many of them have voted for me' .

'My life as an entrepreneur' is the title of the autobiographical book that you published last year. What do you mean by the subtitle: Profit by Loss?

'I can keep the standard story that I am richly blessed.' But I read my painful experiences in Hebrews 12:11 (*And all chastisement as it is today seeming not to be a matter of joy, but of sorrow*). Do not think that is attractive. At the peak Baan Company was worth a few billion. Fortunately, it was decoupled from the family and invested from Oikonomos foundation. I looked daily at rare paintings of Jan Lievens and Frans Hals which were worth a few million. If everything went wrong, I would sell those things. That is how it went. I did not miss them a day either. That's how it was when I had to sell Kasteel De Vanenburg.' Sometimes he notices that not everyone has resigned to the loss on the Baan shares. 'We had become the pyramid scheme for the Reformed denomination. Baan became a gamble share that was thought to be impossible. But I have never advised anyone to buy Baan's stock.'

What was the biggest loss?

He thinks for a moment. 'Two things: The death of my son Jan Peter, and the decline of Baan Company. The first was sweet but it hurt. The second was bitter. The company carried my name, so something like that is very personal.

Yet I can accept that it has gone like this. What would have come out of me without those incidents? Controlling wealth is difficult!'

How can pain be sweet?

'God took Jan Peter home. I saw right away: he is through it. Without it, Jan Willem might not have been on the pulpit now. Gonda became our daughter, and we got a new son-in-law there ten years later.' But love does not die with death. And the love for his seven other children has remained. Every day they have contact via the family app. 'That sometimes produces avalanches. We laugh a lot. We do not always notice that we are crying.' He also lets some sons read along with earlier versions of this article.

Good luck

At the peak, Jan Baan and his brother Paul were in the magazine Quote on number 3 of the richest Dutch. 'Of course, that caressed my pride. Yet it did not work out. At that time, I was too focused on the 'market cap' of companies. At Schiphol I once said to Paul: 'You cannot believe that we are worth more than KLM. Yet I was not really busy with it. All profit was for development work.' He could have led a luxury life from vacation to vacation. 'But I hardly thought about myself. I started working harder and harder.'

What does success do to a person?

'It motivates you, because you need it for new successes. But success also includes disasters. It comes with a lot of disappointments. If you dare to take the loss, everything becomes profit. Together that is very shaping.'

Does success also make you vain?

'Certainly, to deliver performance, you have to find yourself a bit important. That also does something with your ego. Sometimes you are disgusted by yourself. Every entrepreneur must learn to eat his own dog food. These are painful moments. For that you need the good people around you. As a leader you are often isolated. The stupid thing for an entrepreneur is to collect copies of himself around him, or only recruit members from your inner circle.'



Jan Baan (1946) is the founder of Baan Company. A contract with aircraft builder Boeing brought a breakthrough in 1994. Jan Baan, who worked together with his brother Paul, led the company in 1994 to the stock exchange. In July 1998 he left Baan Company. He invested in other companies and founded in 2001 Cordys. This was sold in 2013 with loss. Baan is currently active in Vanenburg Software. Jan and Rinie Baan both has eight children, from who one son has died, and 38 grandchildren.

RD-Magazine Febr. 23, 2019

In a lecture you once said: Manage your own ego. Did you succeed?

‘My environment says yes. I think I have stayed pretty normal. But I have become more business-like. Occasionally I am very gutsy. But for the company you need someone like that. Luther says: simultaneously sinner and justified. In this way you can also have guts and be an inspiring leader.’

He turns back to the screen and clicks to a painting with a pilgrim. ‘I did not enjoy sitting as a rentier, but I have traveled as a steward. Like a pilgrim. He has a job and a calling in the world through which he passes. But his home is somewhere else.’

What is you're calling?

‘Entrepreneurship. I never looked for it, but it was imposed on me. And I also see God's guidance with it.’ He turns back to the screen and gives an explanation about storage of 50 petabytes (50,000 terabyte, EVV).

For Baan this is more than a technical concept.

'The Bible speaks of a commemorative book before God. Everything that has ever been written fits into that 50 petabyte.

This used to be impossible to imagine. Software did not exist then. Most things always exist, but not. I see information technology as something new in which God also reveals Himself. Without IT, no normal life would be possible. Schiphol could close and cities would become chaos. The productivity of knowledge workers has increased enormously and will be doubled by the software in new phones. Through machine learning and big data, we can make connections that we did not see before.

A world full of information technology threatens many people. But Baan wants to be 'relaxed' in it. This world is only temporary.

Maybe it's about six o'clock. Or in 600 years. In Händel's Messiah it is very nice that everything will change 'in the twinkling of an eye': in a blink of an eye. Let us be relaxed. My only desire is can they all be there.'

Unrest

As a young man, however, Baan was far from relaxed. He was 'one piece of trouble,' he says. 'That was perhaps compensation for a piece of uncertainty. My father died when I was 26 and I found it difficult to be without him in the world.'

His father's death was rich. There was hope and perspective. That did something with Jan; he became radical. 'If I didn't like a book, I burned it. For example, I used to renovate my bookcase. In the meantime, I worked a lot. I suggested to my boss how things could be better. With a brother-in-law I renovated and flipped a few houses. That brought a capital that would allow me a year without income. That was a powerful starting point for starting for myself. If it were to crash, I would certainly get a better job again.'

That first Monday morning was delicious; that independence, and that driving in the BMW that he had bought. Smiling: 'I have never had that feeling since.'

Failing is not what happened. On the contrary, the book 'My life as an entrepreneur' is for a large part a story of growth, growth and growth. Germany came into view, and later America and India. Baan Company became an international concern, and Jan Baan a captain of industry. Instead of the BMW there was a Falcon 900; a business jet with which he flew around the world. 'I've had so much fun with that. I could never have done my job without that private jet. Like a truck driver, I could be home on Sunday. And when I didn't need the plane, we rented it to the queen or something.'

Wisdom

The development of Baan was only possible if the company was going to the stock exchange. Thus, fresh capital would come. This happened in 1995.

On an American tour to present his company for the IPO, Jan Baan spent the night in Portland, Oregon. He only had a Bible in his suitcase. He read how Solomon offered sacrifices for God and asked for wisdom. That touched him deeply and he said, 'Lord, I did not search for this; it happened to me. May I receive wisdom from You to steer my business.'

On Saturday he went to a simple motel in Rock Valley, so he could attend church in that village on Sunday. On Saturday evening he browsed through the Dordtse Leerregels (one of the Reformed creeds). 'Those who do not yet feel the living faith forcefully should not be discouraged,' says Baan. 'That gave new courage. That Sunday I needed my handkerchief regularly in the church. That gave me more than money and business. At that time, I could no longer be absorbed in the successes.'

Four years later, in early October 1999, he was once again in the US. He read extensively about David and Jonathan. 'With a satisfied feeling I closed the Bible, but immediately I felt guilty about it. That is why I opened the Bible again, at John 11: *(Yes Lord, I have believed that You are the Christ)*. That hit inside. I was in shock for about half an hour. For the first time I saw the possibility of being saved.' From Denver he went back to Rock Valley on Saturday. 'I went on a journey of a thousand kilometers with joy. Never before had I experienced such joy.'

Back in the same motel, the doubt came over him. Until he read Joseph Charles Philpot (1802-1869) in the evening about the voice of Christ in the Bible.

'That voice is not heard externally but is applied with divine authority and power in the soul by the Holy Spirit, where hope springs up in the heart and the power comes to believe and the prayer rises from the bottom of the heart,' Jan Baan read. 'That's how I could experience that.'

A lot changed. 'I had more need to read in the Bible. I made it routine to start reading ten pages daily. 'This shapes your life. Gradually such a habit becomes refreshing. Nowadays, I do fewer pages, but I take longer to read and use Bible statements to deepen my understanding.' Last week, these experiences became clear to his spirit during a walk. He e-mailed his children about it. During that experience he could not keep it dry. He also has a paternal side to his business demeanor. 'I sometimes walked around like Daddy Jan. I am always the first, go for the maximum and try to get others. I am always working on the business, thinking about tomorrow.'



I walk in front, go running up the stairs and look back where the rest remains. This is sometimes difficult for others. But charismatic leadership is the key for me. Dreaming is part of the role of the entrepreneur. 'He opens the screen with a slide about the entrepreneur and the manager. 'The entrepreneur is dreaming. The manager translates that into thinking, daring and doing. If it crashes, the entrepreneur is there to push through again.'

Misery

In my business, things were not always dreamy. In fact, there were more sleepless nights than restful nights.

'I left Baan. I have had to leave Cordys behind. When the latter happened, I started to read the troubles in theological books.' He picks up a bundle of bound copies from the windowsill. It is a book full of excerpts and reflections. In the table of contents Watchman Nee and Kohlbrugge are brotherly side by side.

Here and there are also drawings and graphs that also show up in everything Baan writes about business. 'I am going to summarize and compare great writers. I also worked out preaching. I could put my energy into that. Of course, this helped a bit. Especially during the many sleepless nights, I had during that difficult time'.

There was quite a bit of processing. He had to watch how the companies he had built up fell back and were sold. Yet he does not feel bitterness. 'What else would have grown out of me? A sample presumably. My whole life I have built up together with two friends: I, me and myself. We have put the flowers outside a few times.

Maybe not in the visible experience outside, but still in the empathy in your concession.' He stares through the window. 'The bitterness of sin is much worse than the pain of Jan Peter. But if we sometimes fall into sin, we should not doubt God's grace. That is the counterpart.' At the same time, he is saved for excesses. 'People knew my background and did not invite me for all kinds of debauchery.'

Baan will not readily admit mistakes, some have said.

'Oh, that is not so bad. Saying sorry is difficult. But I can admit mistakes.'

What was the biggest mistake?

'That's hard to say. I think it was a string of shortcomings. For me there is not so much a compliment, and also to less for others. If there was no mercy, it would be hopeless.'

You are 72. How does a person stay fit?

'I walk an hour every day. With sticks, otherwise I walk to crooked. Or sometimes I cycle seventy kilometers on an electric bike. I was never used to that, but a few years ago a doctor said that I really needed to get started. I would prefer to stay here in my work loft. I really have to get rid of my work.'

You have eight children. What did you give them?

'We have tried to raise them with God's love. Especially my wife. She also brought the warmth for the children. When prosperity came, I said: do not put your heart on it. When we were younger, we were more focussed on formalities. We sat in the passive, with his apparent certainties. But the law is fulfilled. Kohlbrugge has a beautiful sermon from Romans 6: (*Knowing that our old man is crucified with Him*). It's about whether we know this.'

Three boys denounced business and entered the gospel ministry. What role did the upbringing play in this?

Resolute: 'That is the fruit of God's work, also from the ancestry. My father thought he should become a reverend. When he received no certificate, he saw that this was for his offspring. Only when Gert Jan was accepted at the theological school, has this become

clear to me. About the spiritual life in his family he wrote the book 'From the life of Gerrit Jan Baan.'

'I myself saw Gert Jan as the oldest as a successor. But he has become a pastor. Like also to of my other sons Jan Peter and Jan Willem entered the gospel ministry. Jan Willem as a paster is a village in the South of the Netherlands. The three other sons, Paul, Ardjan and Bernhard, joined me in the business. My two daughters, Arianne and Marieke, are the managers in their families.

Jan Peter chose to become a teacher. That was a preparation for his task in Nigeria. He taught preaching at the theological school there. He himself only did eighteen sermons: one every month. The last one my wife and I went through a few days before the murder. He concluded with the words from John 12: (*Where I am My servant will also be; Amen.*) That's how it is on his grave.'

Appendix B - employee testimonials

Over the years, I've received many letters, emails, and other formats where my employees expressed their gratitude and experience of the Baan culture. In this chapter, I have shared a few.

As the first one by my friend Ramanathan describes, many companies try to strive for a culture people will speak of. Only a few will ever achieve that. Although I received many accolades, it was really the overall team adopting the principles and views and making what I set out the DNA of our Baan culture.

About my personal input as an entrepreneur as well as my style of leadership is perfectly stated in an assignment that my former CFO of the Vanenburg has done at the time in her Psychology study, by using my profile as the subject of her study assignment.

Graduation assignment 'Not just a job.'

Analysis of the person Jan, written by Jenny Achterstraat-Floor. Worked 17 years with and for Jan Baan as financial manager Baan and Vanenburg Group.

Everybody is happy with what they bring; the strength of a team lies in the diversity of the team members. Jan Baan encourages his employees to use each other's strengths and to compensate for weak points. One person cannot do without the other. Success does not depend on a single person. ['A good entrepreneur turns the pain of yesterday into a passion for today'](#). By this, Jan means that he does not want to get stuck in setbacks and pain. He wants to learn from this and use these experiences for the future. It applies to the entrepreneur and all employees at all levels.

Link to practice: The basic principle for Jan is that his employees are competent and take initiative in their private circumstances to make important decisions, such as entering into a marriage, buying a house, entering into financial obligations. In their private situation, they are often leaders. Jan states that these employees can also become leaders in their duties. That is why he wants to give his employees sufficient space for their own decisions and independent activity, for their own initiative and free development.

Listening skills

Jan uses active listening skills. He looks at those he is in dialog with and opens himself up in the conversation and asks questions. However, he can only hold it for a short time, and he quickly comes up with his own interpretation, a (sometimes unsolicited) advice, with a

solution or with his vision. Link to practice: Jan listens briefly, thinks quickly, and then takes over the conversation himself. As a result, the other speakers usually do not get the opportunity to put down their contribution and often feel overwhelmed, perhaps even disabled.

Core qualities

I want to discuss two core qualities of him:

1. Core quality: Jan is visionary, can think quickly, combine, has sharp insight, and is future-oriented. The pitfall is an authoritarian and dominant behavior. The allergy is the person who is busy with the problems of yesterday. His challenge is not to feel superior to the other person and not rise above the other.
2. Core quality: being an entrepreneur, dreaming, daring, thinking, doing, and persevering. The pitfall is that he loses sight of reality. The allergy is the 'yes but' person. The challenge is to combine dreams with common sense.

Total image of Jan

To sum it up, I come to the following overall picture of the person Jan:

His inside motivation: He believes in:

- a. God as Creator of heaven and earth
- b. God as Giver of gifts and talents
- c. Calling for life: building and preserving the creation
- d. Life assignment: to love God above everything and the neighbor as himself

From his vocation and assignment, he wants to add social value.

Jan wants to be busy looking at Biblical examples. He is highly dependent on the blessing of God on his work

- Congenital, developed, and learned properties
- He is honest, trustworthy, conscientious, psychologically strong
- Jan has a strong involvement with his staff
- He feels independent (from people and his environment)
- He is flexible, spontaneous, fast, sometimes impulsive, generous, mild
- Jan oversees complex situations, makes easy connections, is persistent, perceptive, and sometimes also dominant and authoritarian
- He is an entrepreneur and not a manager, and he chooses freedom over structure
- He listens actively and intensively for a short time

Pitfall for him: Manage your ego. Try not to become superior to everyone else, and also propagate this to the environment.

Answering research question

After the analysis, I now answer the research question: In what way does Jan's Christian philosophy influence his dealings with his employees? Influences of the Christian philosophy are expressed in two ways:

1. From the inner motivation

His inner motivation is the life vocation and life assignment. This makes him a 'private person' who is accountable and dependent on his client.

This influence on the interaction with his employees is: gentle, humble, and mild towards them, co-behavior. Being called also gives freedom and makes it independent of people and the environment. The awareness of being called works to correct authoritarian and dominant behavior and is a medicine against your ego.

2. From congenital and learned properties

Jan has had a Christian upbringing with innate and acquired qualities. Christian norms and values are woven into his personality through learned behavior. Christian norms and values influence in dealing with his employees are giving: trust, responsibilities, freedom, opportunities, and re-appearing. He also shows respect for the other by appreciating the other in what he is. In addition, Jan shows exemplary dutiful behavior.

Indian employees

Ramanathan Subramanian

Head of Baan India, several management functions Cordys & currently Advisor to Vanenburg Group

To talk about pride

Company culture is often mentioned as an outcome of its business success. The greater the success in terms of revenues and profits, the higher is the tendency to elevate its company culture. Can the company culture survive the scrutiny of business success? Can it outlive the original organization and still exist in the minds and hearts of the people it nurtured? Can it be carried to other organizations and still be talked about with pride? Can it make an impact on an individual outside work? Can it rally around and self-organize itself into a network? It does at times, and that is when you feel like penning a testimonial. Here is mine.

Picture this! A small town in the Netherlands where a software company with about 300 employees does all its business locally. One can imagine its founder thinking about expansion and seeking talent and innovation primarily in Europe or North America, surely not India, and not in the mid-'80s. Not many people had India on their map back then for software development. Yet, the founder of Baan Company, Jan Baan, thought differently. He visited India in 1986 and could clearly sense its potential in software development.

Quick to act, a short time later, he deputed his energetic VP of Business Development (Kees Westerhuis) to visit India and forge partnerships for software development with emerging outsourcing firms. I am talking of 1987. A new chapter began in India's young history of software outsourcing, this time not written by a big firm with lots of cash but a small yet visionary company from the Netherlands called Baan, led by its founder and CEO Jan Baan. What others waited for to see clearly, he could sense and wanted to seek and nurture. Remember, India was still not famous for its software industry back then, and only a few Western companies were active in India. The challenge was even more as India had still not opened up its economy. Risks were high, challenges many. Working closely with Indian outsourcing firms, the Dutch company began to see more strategic possibilities in India and took the plunge to set up its own subsidiary in 1989 in Mumbai.

Making it work in terms of delivery was a big challenge for all of us, but I could feel the persevering and stewardship leadership from the top to make it happen. There was a strong belief in the long-term potential of Indian software engineers. This was backed by the investments required to make people on both sides understand what it takes to overcome language barriers, culture, and expectations. The wisdom of patience and acceptance of cultural differences was emphasized in tough times. This laid the strong foundation for a deep understanding between India and the Netherlands in the

organization. Leading from the front was CEO Jan Baan, strongly supported by his trusted colleagues on both sides.

A deeper understanding of people and culture led to an increase in the scope and scale of the Indian subsidiary in Mumbai. We set up a Center of Excellence (CoE) and provided top-notch ERP consultants to serve the increasing demands of our global partners and customers. Soon we set up core product development and support functions in Mumbai. By the early '90s, we were one of the few companies that could use its Indian subsidiary not as a cost center but as a strategic force multiplier for its global business. Working closely with my Dutch colleagues was a unique experience. I noticed their deep passion for technology and products. They went deep into their respective areas and always talked about generic problems and solutions. There was an important focus on modeling and architecture. Instead of bespoke solutions, we had products that met diverse needs.

Releasing products to the market was a critical process where we had to get so many things right, which was a time of great learning for all of us in India. Dutch colleagues who barely spoke English were open to sharing knowledge and coaching their Indian counterparts, some of them often carrying their Dutch to English dictionaries with them. This phase was crucial for there was a big gap in understanding how to develop and implement technology-based products. Our Indian colleagues stepped up to this challenge, and soon they took ownership of several products. The strategic intent of this venture was now being achieved in the early '90s.

Our ERP products became very popular globally. Growth led to more demands on scaling the India operations. By the mid-90s, we needed a new location to expand. The company's pioneering and risk-taking culture stood out once again when we decided on Hyderabad as our growth location. This was unusual at that time, as Bangalore was the obvious choice for many, picking Hyderabad was a bold decision. It was taken by the company's senior leadership team, who frequently traveled to India and even relocated here for longer durations, through which they had developed a deep understanding of India. India by then was no longer only a land of elephants and snake charmers and was seen as an emerging economy with its vast pool of talent and enterprise.

The government of Andhra Pradesh recognized this bold decision of the Baan Company and not only extended their full support but also based their marketing efforts on the famous words of Jan Baan 'I have bet my future on Hyderabad.' We got off to a good start in 1995. Soon we had over 800 developers developing, maintaining, and supporting old and new products. We had a global institute for training partners and employees on a massive scale. We soon became one of the most sought-after employers in this region and could attract a lot of talent to the company. The original vision had become a reality.

To support this growth, we needed larger office facilities. The decision was quickly taken in late 1997 to have a campus in Hyderabad. Through significant investments, it became one of the largest private company investments in the city. The speed of decision-making really galvanized us in India to make it happen, and the trust and support we received in setting up the campus were perhaps the main reason we could do so quickly. By late 1999 the first phase of the campus, called Vanenburg IT Park, was ready and occupied. The management style here was one of delegation and decentralization.

Soon the Vanenburg IT Park in Hyderabad became one of the well-known landmarks in the Hyderabad IT industry. When I look back at this, it was a great combined effort from our senior management in the Netherlands and the India team, which needed much understanding, trust, risk-taking, and vision besides competence. Subsequently, many companies followed suit, and we were the reference check for many of them. The business subsequently hit turbulence, another true test of character and commitment of the company towards its people. Downsizing happened most humanely and was another process that set us apart. The company helped the employees who were let go to find jobs with other partners and created a stronger bond with them in the process. Many of them subsequently applied and joined back, remembering how they were treated during the process. After Baan as a company was sold, another avatar of this culture was formed. Initially called Vanenburg, this was later renamed Cordys, headed by its founder and CEO, Jan Baan.

A new business started, and true to its product pedigree, Cordys once again gained global attention as a leading BPMS and PAAS product vendor. It was another example of how a good company culture can create good products. A lot more can be said about this journey, but when I put it all together, it was a great combination of talented people in technology and product development working as one team, envisioning the future, designing innovative products, and above all forging a bridge of deep trust and understanding across the company. A lot could be achieved due to this and the sum of these experiences at work can be termed as our company culture.

These experiences have changed me and made me look at people, businesses, and products differently. It has made me realize that it is the process that matters; success or failure is incidental. I have learned the importance of spending time with people and trying to understand them better. It's important to create a culture of being open, transparent, one of Integrity, Innovation, and Initiative. Good products will follow, the ones created by our team are still being used by several thousand companies worldwide and ex-colleagues with fond memories scattered all over the globe that still stay in touch. The network is still strong and reflects the shared values in each of us. This is the legacy of the culture that was built, and I can say this culture has survived the organization that created it.

Model of Trust and Freedom - A Baan Legacy

After completing my engineering course, I directly joined Baan Info systems as a fresher. I had no understanding of the real world then. I was full of spirit and passion but was equally rigid, with a black and white view of things. There was so much for me to learn, and Baan turned out to be my second school and the finest school at that.

The Baan School ran on Jan Baan's principles, and he taught us some of the best lessons. He would visit us frequently, and talk with us, motivate us and guide us. 'Don't ask for permission; you can ask for forgiveness instead' — he would say.

Those simple words were powerful, and they set the crucial working culture, a culture that facilitated innovations in Baan and later in Cordys. It liberated us, particularly in the Indian context, where we don't often challenge our elder's opinions openly and where, after college, we start treating managers like professors.

Those words, '...you can ask for forgiveness instead,' gave us the necessary courage to take risks and try new things at work. At Baan and Cordys, we followed some of the best leadership principles. Employees were encouraged to take the initiative. Through grooming, challenging, and mentoring, a top-notch engineering force that excelled in product and solution development was built from the ground up in both companies.

This approach benefited hundreds of engineers in India. To be trained by experts on the latest technologies and business solutions in an accountable and friendly environment. To be entrusted with big responsibilities will certainly fire and motivate any individual and push them to strive for their best. It was the best way to inculcate passion, ownership, and loyalty in every employee.

Many of my colleagues who started as freshers are now leaders in other companies, or they manage their own companies, trust, and mentor teams while creating beautiful things.

The same 'Baan culture' is carried forward in too. I believe that the legacy which Jan Baan would be leaving for us in India is a model of trust and freedom, where young minds are nurtured and provided with a fearless environment for innovation, so they can continuously grow and contribute.

'Guys ! Our founder Jan Baan is coming to India in two weeks.'

Once the announcement was made, everyone knew what to do next.

The teams became busy finishing and polishing the new features they are building; the product managers are preparing a demo script; the meeting room is booked for Thursday, and a full day demo session is planned for Jan Baan. Preparations are intense within the teams to articulate and position the work they have been doing in the best possible way. And the excitement is on! We have been doing this for years, and every engineer in the R&D centers in India and the Netherlands will know what this means.

I started one of the most stimulating and purposeful journeys of my life when I joined Baan in 1995 as a young engineer. After training for six months in ERP concepts and Baan IV functionality, my batch mates and I got ready to develop the next version of Baan ERP. We started Baan V with much excitement because the new release had a huge technology leap along with many advanced ERP solutions. The new tools version had innovative user interface capabilities and object-oriented concepts introduced via a new data access layer (DAL). Baan Service modules were supposed to adopt the new tools' capabilities first, and I had the chance to be an early user of this great technology.

From the Hyderabad development center, we were involved in developing many new modules of ERP with the guidance of senior colleagues from the Netherlands. We followed the then-popular Baan Development Methodology, which evolved internally with many best practices and standards.

Two things that impressed me the most about Baan are the product vision and the work culture. The Indian management paid special attention to creating a trustful and friendly environment driven by some key principles of Jan Baan. The most profound ones, as I remember, are:

- Ask for forgiveness instead of permission
- Focus on resolving the issue rather than finding out who did it
- Honesty and Integrity - the best policy

In every employee address, he reinforces these key principles.

After working for 9+ years at Baan Company, I had the opportunity to work more closely with Jan Baan on his next entrepreneurial journey, Cordys. That's when I learned firsthand of his visionary ideas and saw the fire in him for creating new products and solutions.

Unbridled Vision, Passion, and Compassion

The First Meeting: In the mid-90s, more than 100 of us joined the Baan Company. All of us campus recruited, just out of college, with lots of ambitions, raring to do something big. Within a month of joining, we came to know that the organization's CEO would visit our Hyderabad office, and we would have an opportunity to listen to him during the employee meeting. The hour-long meeting was equally interesting, to say the least. Jan Baan told us what was most important for him — the 3'I's — Integrity, Innovation, Initiative.

With the 3 'I's as the foundation, he gave us much advice and set rules for life:

Very important to enjoy what we are doing. Else, stop doing it!

- Learn and never stop learning. Each year look if your knowledge is much higher than the previous year.
- Don't ask for permission. Instead, ask for forgiveness.
- Family is the most important aspect of our lives — don't be a workaholic and remember to spend quality time with family every day/week.
- It's OK, and nothing wrong with being #2 in the market! Don't take too much pressure to be #1 because you stop enjoying what you are doing.

The famous 'Baan culture': Working at Baan was filled with respect for every individual, where the fairness of treatment was very core in every aspect.

It created an environment that was very friendly and trustful, nurtured talent, brought out the best in people, and created openness. It was where the most junior of employees could meet any of their teammates or senior management with equal ease, discuss any topic and brainstorm any idea. In 10 years at Baan, I have never encountered anyone having 'Monday morning' blues! It was a place where people enjoyed their work. It was a place where people simply loved to come every morning. It's hard to define what 'Baan culture really is, but in brief, it was the essence of the above. If any 'Baanite' is asked about their first thoughts about working at Baan, it would be the fond memories of the 'Baan culture.' This culture was directly a result of the consistent messages of Jan Baan and what he strongly believed, preached, and followed.

Family: I have had the great opportunity of listening to Jan Baan since those first days in the mid-90s — at employee meets, during team meetings, demo sessions, lunch, and dinners. His messages have always been consistently the same as our first meeting. Employee and their family well-being have been at the core of Jan Baan's concerns. Everything else was next. I had the good opportunity to join a 'Jan Baan' company for the third time (Baan Info, Cordys, Vanenburg Software), and I love every bit of it.

The Baan Way, Built to Last

It is not the beauty of a building you should look at; it's the construction of the foundation that will stand the test of time – David Allan Coe.

On June 10, 1996, on a very pleasant day and the first day of my first job, little did I know that I was walking into an organization that would heavily influence and shape me into who I am today. Baan was the #2 ERP software company at that time, second to SAP.

Although the company was #2, Baan was considered a technically superior product and won the hearts and minds of several technical people across the globe.

One of the main lessons we learned at Baan was not to be afraid to make mistakes. Jan Baan, our CEO, is a personification of all the values we learned at the company. He would encourage us to come out of the 'Mother, may I?' mindset and ask for forgiveness rather than permission. His belief, which he inculcated in everyone, is that every employee should feel empowered to innovate without the fear of failing or suppression. He encouraged us to take the **Initiative** to **Innovate** with uncompromising **Integrity**. He was never interested in discussing the 'numbers' like a typical CEO in our employee meetings. Instead, he imparted his immense energy and his passion through his speeches, outlining a vision that brought a common sense of purpose among all of us. Therein lay the source of motivation for every employee in the organization, whatever job they might have been entrusted with.

The leader he chose to represent him, Ramanathan, is highly regarded across the IT industry in Hyderabad for the values he cultivated in the Baan company, especially the high level of Integrity. Another thing that Jan was very passionate about was charity. He set up a foundation in India that is helping several underprivileged children to gain education and a better quality of life. He encouraged everyone to spare what little they could to uplift the society we lived in, and he strongly believed in the saying: 'sharing is caring.'

I have seen ups and downs in Jan's investments and businesses but haven't seen the slightest wither in his passion for charity nor his contributions. He felt overjoyed whenever someone inquired about his foundation, causing an inspiration to follow suit.

Jan has created a lasting impression of his values and culture on the IT industry, especially in India, which is deeply ingrained in thousands of professionals turned leaders, who are in turn taking this to the next level in shaping the industry and the people.

Jan's contributions are profound, impactful, and inspirational to everyone he ever touched directly or indirectly. **The Baan Way, I can say for sure, is built to last.**

The Baan/Cordys alumni's in Hyderabad June 25, 2018.
We together celebrated my 40th entrepreneurial anniversary.

Dhanyawad

A normal person sees things as they exist,
A visionary sees what they can be.
He sees it as an opportunity to help mankind.
Where others think, 'What's in it for me?'

In 1987 when Outsourcing was not even a word Jan chose Mumbai in India to start getting things done, created jobs, encouraged thought, gave talent a chance in doing it his way, he was the first one.

And later: if you see Hyderabad now, It's a happening city with hundreds of buildings tall. Cut back to 1995, when it was all barren narrow lanes and rocks. Few opportunities, a slow, quiet city, pretty small.

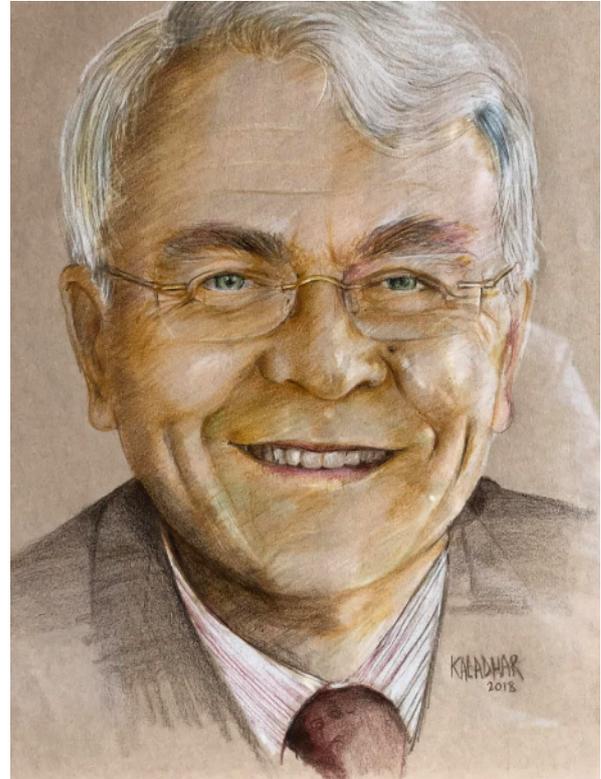
Where others saw a million problems, he sensed an amazing opportunity. What he did blazed the path of creativity and transformation. This trailblazer was focused, determined and gritty.

Baanites exist all over the world today. Happy families, great growth, social fabric, and economic security. He touched and transformed their lives. Leading them from lack of direction to prosperity.

We can never thank him enough for what he has done.

This man from Holland who is today India's Abhimaan (Pride). We pray that he may continue his relentless pursuit of excellence and discovery.

The world calls him Jan Baan.
We lovingly call him Jaan (life).



KEEP GOING

Dank u wel 'from your extended family in India!'

Dutch employees

Prof. J.C. Wortmann

Professor of the Faculty of Economics and Business at the University of Groningen

My introduction to Jan Baan

Around 1984 I met Jan Hasselman at a software fair, from what was at the time the company Baan Info systems. I worked at the Eindhoven University of Technology at the time, and I was very interested in MRP (Manufacturing Resources Planning) software. Most of the people I met at the fair were sellers looking for a customer, and of course, as a university professor, I was not the prototype of a customer. Jan Hasselman was not a prototype of a salesman either.

Jan Hasselman could tell me much more about his company's software than the vendors at other stands could about theirs and caught my interest. I asked him: 'who actually wrote this software?' Jan Hasselman simply replied: I. That concise answer immediately made it clear why he knew so much about it!

Later he introduced me to the founder of the company, Jan Baan. I asked if I could show the software in Eindhoven to my students to let them practice in assessing (standard) application software for MRP II. Jan Baan agreed and came by the same week to deliver a few Unix minicomputers, if I remember correctly, from the AT&T brand. I promised him that the students would also send their reports to him.

My students set to work, and some wrote a rather devastating report about this software (Dutch students are not always known for their sensitivity in formulating a judgment). I was rather shocked by the style and the lack of nuance in this version of the report and started to correct the report before it went out. However, unbeknownst to me, the students had already sent a copy of the report to Jan Baan.

When I got Jan Baan on the phone the next day, I expected a particularly bad reaction. To my surprise, there was no question at all. Jan Baan said to me: apparently you have ideas at the University about how things can be improved; how can we work together? That cooperation has come about for a long time, first in one-on-one sessions with Jan Hasselman, later broader with Baan Development, Baan Business Innovation, and the Baan Business IT school. I think that the open eye for what is later called Open Innovation is one of the success factors of Jan Baan as an entrepreneur.

On December 22, 1983, I had my job interview with Jan and Paul Baan.

A special conversation at a special time. Computers were then still ‘mainframes,’ reserved for banks and other large institutions. Software development was still in its infancy, and we were on the eve of the application of computer technology in medium and small businesses. By now, I have been working in the software industry for more than 34 years and look back with great pleasure on my 30-year relationship with Jan Baan. A few things have stayed with me

- Jan sends you into the woods with not always a clear assignment. He assumes that you will give an interpretation to the instruction independently. From a distance, he follows you and has a very sharp eye on whether you are successful or if any adjustments are necessary.
- Jan is a ‘products’ man. He spends a substantial part of his time monitoring and understanding what is going on in his business regarding product development. He rushes into the ‘development lab’ at unexpected moments and then wants to see what we do. Many of my people took advantage of this and had their ‘Jan Baan demo’ ready.
- Working for 30 years for one employer sounds dull, but the opposite was true. Working for Jan Baan, I experienced it as an interesting and exciting adventure in which I could fully develop myself and did not go a day reluctantly to work. In 30 interesting years, I went through the entire range of functions: from software engineer and architect to team leader, product, program, and development manager.
- The dynamics of my job were the fascinating mix of an impetuous development of computer technology with the unbridled growth of the Baan business: from an extensive accounting firm to a listed, globally operating ERP product company!
- Jan is good for his employees. He pays attention to everyone in his company and breeds a loyalty that you rarely find in companies.
- After his exit from the Baan Company, it would have been easy to enjoy his assets and do some clean, risk-free investments with a significant bank account. Jan, however, chose the opposite as a serial entrepreneur and followed his heart: doing business, innovating, putting products on the market, taking risks from a vision, and trying to be successful in that. Through that vision and attitude to life, he has also been the driver for Cordys to complete the ‘ride’ of 10 years, which unfortunately we could not get off the ground before selling it.

In the meantime, I have been working for another company for some years and regularly think back to my 30 years of employment at Jan Baan. Jan, I thank you and congratulations on your 40-year-old entrepreneurship! Stick around for some more years and God's blessing on your further path of life.

What makes an impression on Jan?

'When can you start? Monday?' That is what I remember from my first meeting with you in the summer of 2003. I had just spoken with Theodoor about the switch from Baan to Cordys. We sat on the terrace behind the Vanenburg, and you came by like a whirlwind to draw me over the line. Your enthusiasm, drive, and disarming directness appealed so much to me, and I am sure with the many customers, partners, and employees you have won over.

Do you remember the visit of Jeff Hartigan, the CIO of Kulicke & Soffa? One of the first real prospects from the US? You pulled him over the line in a way I had never seen before. You first showed him all the risks of working with us, after which you gave him your commitment to really help him and the business. When SOS International, troubled by problems with the quality of BOP-4, threatened to pull the plug out of the project, you masterfully managed to win the trust of Guido Horst and his team again.

The feeling that you managed to create where customers and employees truly felt like a part of the family. Wherever you would go in the world, people would commit to Cordys at Kasteel De Vanenburg spontaneously. It is also the reason why we were able to retain a lot of talent during difficult times.

We have built a world-class product under your leadership, and I consider it a privilege that I have been allowed to work for you for 10 years. I would like to thank you for the trust and the opportunities you have given me.

It is very unfortunate that the outcome is different from what we have worked for and fought for. From a distance, it is very easy to point out the mistakes that have been made, but it is a lot more complex from close. For you personally and for your family, the last two or three years have been very tough. I have also seen how you have looked for the best solution for employees and customers at the expense of your own interest, which deserves a lot of respect.

Jan, you have had an eventful business and personal life. On occasion, I think of the Christmas speeches. The first speech that I attended was when you were thinking about the death of your son Jan Peter. In the last speech, you spoke about real wealth. There, too, you showed something of what lives in your heart. That ultimately made the most impression on me.

'Our heart is restless until it finds rest in You, o God,' is one of Augustine's most famous sayings. I believe that we should learn and experience it again and again. Go with God.

Jan Baan, from profession entrepreneur

Jan greeted me with these words. 'Hey, you're there too! Why did you not come earlier?' I stood with my back to him on the other side of the corridor at the cafeteria in Kasteel De Vanenburg. Perhaps it was the same white hair that I share with him that was giving me away. I am not sure, but it was also often a topic of conversation for Jan and Jolina, my wife. In my opinion, I did not work for Baan or later for Cordys. I worked for Jan! I noticed that many people felt the same. It is a feeling that is hard to describe. Now OpenText is my patron, and I do not have that same feeling. As my former Cordys colleagues with whom I have shared a lot of experiences, it will no longer be the same excitement as we had in the past, but likely a more difficult time.

Appreciation is very important. I learned that in Groot-Zonneoord when I was in the group of Theodoor. 'What are you doing for me?' Jan asked me, standing next to my desk. Jan regularly visited our group and wanted to know where everyone was working on, and he would remember what you told or showed him a previous time. I was lucky; I worked on the platform's graphical user interface, which allowed me to show something directly on the screen instead of some boring technical story. I always made sure to have a so-called JB demo ready. In all those twenty-six years, I have worked in many different locations. Jan was a bit of a broker with a penchant for beautiful buildings in beautiful locations. When I told friends about our work environment, they were genuinely surprised, as working in a castle was very different from their offices.

At times we knew that we would be in for something special, and likely time-consuming, when Jan joined our lunch table, bringing his tray with sandwiches. I remember one time when Jan started about word processors and presentation software, which he said won't be on your computer but reside on the internet, shared through business flows. This was before there was a cloud and when Google was nothing more than a search engine and sounded a bit far-fetched, but we listened. It proved that Jan often was more visionary than entrepreneur, and his vision, right there at that lunch table, became Google Docs instead of Cordys Docs. The work at Baan and later at Cordys has given me a lot. Working on interesting topics with talented people gathered by Jan. He can rightfully call himself the Chief Inspiration Officer, and I am grateful for twenty-six fascinating years. The title of this letter could have been 'Memories of Jan,' but that sounds like Jan is no longer here. He is here ... only no longer as our leader. We go on without Jan, but I hope to read the headline again in the Newspaper: '[Jan Baan did it again. Latest start-up success story!](#)'

1986 B-Shell

An article on the Baan B-Shell was published in an automation magazine. A shell around the OS, which we now call Java Virtual Machine. That is a forward vision.

- 1994 Ede, Zonneoord. I will not forget when I came to Theodoor for a job interview, difficult questions, but a beautiful location to start working.
- 1995 www.baan.nl. I remember all of us in the auditorium in Ede looking at the launch of our own website, www.baan.nl. Even SAP did not have one at the time.
- 1996 Triton Tools 6.1. Baan even has its own database B-Isam. All of us worked together with people from India. In the beginning, English was a bit tricky, especially for me. I remember the speeches or pep talks sprinkled with Dutch/English expressions such as 'it rains pipe steels here.'
- International. We were not only in the Netherlands but also abroad. We all flew around quite a bit. I was only a few months with the company and was on a plane to Canada to solve a problem at Husky. First flight ever, and many would follow.

Later at Cordys, you allowed us to go to South Africa and to set up Cordys Africa. It was a lot of hard work, but a really good time with great memories. 'Baie thanks.'

Jan, you've always had a look ahead, with Baan Company, the B-shell, ERP, Cordys, BPM, everything web-based, in the cloud ... At Baan and later at Cordys, you inspired us by just passing by and asking how things were going.

I will never forget how you stood there in front of many thousands of people at Baan's OpenWorld in Denver in 1998 and had a poem at the end of your speech. 'It's from a poem by a famous poet' you mentioned, 'from David', and you read a Psalm from the Bible.

That gave an extra dimension to working at 'Baan,' there was always room for God and his Word. You were not ashamed referring to the Bible in front of a large group of people and said that you took your support from the Bible in difficult times. Now, after a long time together, our roads separate. Thanks for the opportunities!

Jan, I hope when you look back on your life with your family, Baan, and Cordys, you can say with full conviction what is in Philippians 3:5 *Yea verily, and I count all things to be loss for the excellency of the knowledge of Christ Jesus my Lord: for whom I suffered the loss of all things, and do count them but refuse, that I may gain Christ,*

You're fine, God blessing,

Jan Westerhoud

(from the IPO until 1998, our CFO and former Partner of E&Y and our accountant)

Dear Jan,

Thank you very much for allowing me to be a witness to your entrepreneur's anniversary! Old and beautiful times revived, and your words directed to me have touched me deeply! Especially because you did not have to!

I look back at my Baan time with a lot of pleasure, although it was not easy. Baan laid the foundation for a career outside of what I was destined to do, a career that would have looked very different without you.

Other than that, I have learned a lot more. At Baan, I was in the flow of success, and despite the high pressure that it brought, it was very addictive and fulfilling. After my departure, I was sort of lost and had to start again. My family helped me through that difficult time, and I learned to deal with that loss firmly on the ground with both legs. You gave me that lesson!

Last Wednesday, it turned out once again that differences of opinion and, a more or less forced departure, do not have to lead to quarreling and disrespecting each other.

For me, my Baan period was a life lesson, one I used for the rest of my career. My sincere thanks for that!

Your story about your lessons made a big impression on me and is recognizable in many ways.

Thanks again, and especially enjoy the freedom!

Greetings

