Business-Driven IT Transformation at Royal Philips: Shedding Light on (Un)Rewarded Complexity

Teaching Case

Martin Mocker
MIT
Center for Information Systems
Research, and
Reutlingen University
ESB Business School
Alteburgstr. 150,
72762 Reutlingen Germany
martin.mocker@reutlingen-university.de

Eric van Heck
Erasmus University
Rotterdam School of Management
Burgemeester Oudlaan 50,
Rotterdam 3062PA, Netherlands
evanheck@rsm.nl

Abstract

In 2013, Royal Philips was two years into a daunting transformation. Following declining financial performance, CEO Frans van Houten aimed to turn the Dutch icon into a "high-performing company" by 2017. This case study examines the challenges of the business-driven IT transformation at Royal Philips, a diversified technology company. The case discusses three crucial issues. First, the case reflects on Philips' aim at creating value from combining locally relevant products and services while also leveraging its global scale and scope. Rewarded and unrewarded business complexity is analyzed. Second, the case identifies the need to design and align multiple elements of an enterprise (organizational, cultural, technical) to balance local responsiveness with global scale. Third, the case explains the role of IT (as an asset instead of a liability) in Philips' transformation and discusses the new IT landscape with its digital platforms, and the new practices to create effective business-IT partnerships.

Keywords: Organizational transformation, IS platform, enterprise architecture, IT governance, global business processes, process standards, agile software development

Introduction

In late 2013, Royal Philips was two years into a daunting transformation. When Frans van Houten became CEO in 2011, he described Philips' situation as a "burning platform." Following years of declining financial performance, he aimed to transform the Dutch icon into a "high-performing company" by 2017. [1]

Over its 120-year history, Philips had developed a highly diversified product portfolio and broad geographic reach. Philips was doing everything from selling shavers in China and MRI scanners in the USA to providing the lamps lighting the Eiffel Tower. Historically, Philips had engaged in these wide-ranging activities by granting considerable autonomy to its general managers:

> *If you ask people who are long retired what they appreciated in working for Philips, many would answer that at Philips you have a lot of freedom! That's why we're such great innovators. That's why we have such a fantastic global footprint.*
> *—Rob Theunissen, End2End Transformation Leader*

Running Philips like a holding of different businesses had fostered innovation and entrepreneurship. But it had also introduced significant variation in how different parts of Philips were operating.

> *We allowed a lot of freedom to our businesses in our markets to operate in the way they wanted.*
> *—Rob Theunissen*

By management's count, Philips had over 80 business models, each of them relying on unique business processes and on over 10,000 IT systems in total, strangling Philips with high cost and long lead times.

Philips was looking for a way to create value from its culture of technology-based innovation and the potential to serve many local markets in diverse businesses, but at the same time to eliminate the inefficiencies typically associated with multi-national conglomerates.

> *We are not Samsung shipping the same devices worldwide; our products reflect the specific needs of each market. [But,] we also want to maintain the principle of "globally scalable" to exploit the economies of scale that we can realize across the world. [2]*
> *—Jeroen Tas, Executive Vice President and Chief Information Officer*

In other words, Philips had to be able to eliminate the complexity that kept it from leveraging global scale, while exploiting the complexity that supported local innovation and differentiation from competitors.

> *I would like to observe that some complexity is rewarded and other complexity is unrewarded, and [in our transformation] we have tried to anchor that notion with our leaders.*
> *—Frans van Houten, CEO and Board Chairman*

It was clear to management that this required no less than "trying to reinvent the operating model of a diversified high tech company,"[3] including a fundamental transformation of Philips' approach to products and processes, how people worked together, as well as of the overall IT landscape. On the products side, Philips aimed for locally relevant innovations and integrated solutions. Regarding processes, the company wanted to move to global standards. Philips also introduced several new roles like Executive Business Process Owners and redefined accountabilities. On the IT side, Philips followed a "green-field" approach to replace its over 10,000 systems with the "Philips Integrated Landscape" that was under development.

Background: Philips—A Diversified Technology Group

Koninklijke Philips N.V. (Royal Philips, or more commonly Philips) was founded as Philips & Co. in 1891 in Eindhoven, The Netherlands, to "manufacture incandescent lamps and other electrical products."[4]

Incorporated in 1912, Philips quickly diversified into numerous businesses besides light bulbs. Probably best known today to consumers for its Philishave electric shavers, Sonicare electric toothbrushes, and

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[1] *Financial Times*, July 4, 2013, Philips must learn to work as one unit: http://on.ft.com/1z1en6D
[2] Interview with Jeroen Tas in *CIO – IT in the Boardroom*, Volume 9, Issue 2, 2013 (translated, adapted)
[3] Quoting Rob Theunissen
[4] Philips Annual Report 2012

Senseo coffeemakers, the company had at some point also ventured into vacuum tubes, generators, and medical imaging systems (X-Ray, PET, MRI, CT scanners, etc.). In the past, Philips had also manufactured and sold radios, TV sets, audio cassette recorders, and semiconductors. The company had also introduced the world's first home VCR and laser disk player and had partnered with Sony to launch the CD, DVD and Blu-ray standard. Philips has exited several of these product lines by now.

In 2013, Royal Philips still operated in 15 so-called Business Groups (comprising over 60 Business Categories)[5] that were grouped into three Sectors: Lighting (e.g., city street lighting, automotive lighting, consumer luminaires, building lighting, etc.), Healthcare (various imaging systems, integrated healthcare solutions, specialized healthcare software, etc.) and Consumer Lifestyle (e.g. personal care, mother and child care, household products, computer accessories, etc.). With these products, Philips served customers in over 100 countries that were clustered into 17 "logical markets," such as DACH (Germany, Austria, and Switzerland), North America, China, etc. These 15 business groups and 17 markets, along with functions (e.g. business functions such as marketing and logistics, as well as support functions such as HR, finance, IT, etc.), constituted the three axes of Philips' organizational structure.[6]

Throughout its history Philips' products have been widely respected. In 2013, Philips was the most valuable brand in The Netherlands—outranking even Shell and Heineken—with Interbrand ranking Philips 40th among the 100 most valuable brands globally.[7]

The Philips Business Transformation: *Accelerate!*

Despite its brand value and many innovations, early in the new millennium, Philips' financial performance was flagging. By 2011, its stock price and shareholder return had been underperforming the AEX and Euro Stoxx 50 indices for 10 years. From 2000–2010, Philips lost more than 40% of its revenue and its profit margin had dropped from 25% to 7% (after losses in 2001, 2002, and 2008 and a meager 2% margin in 2009; see Appendix 1 for details of Philips' financial performance).

On April 1, 2011, Frans van Houten was named the new CEO. After bringing in several new leaders, van Houten formed an Executive Committee. The idea was to "allow functions, businesses and markets to be represented at the highest [management] level" outside the Board of Management.[8] While the ExCo wanted to leverage what it viewed as competitive strengths such as deep market insight, technology innovation, its global footprint, brand, and people—it also needed to turn the business around.

To do so, that same year Philips announced the *Accelerate!* transformation program that was "all about bringing meaningful innovations to our customers in local markets—and doing so faster and better than the competition."[9] Financially, the transformation promised to deliver EBITA margins of 11–12% by the end of 2016 and of 10–12% by the end of 2013 while growing sales at a CAGR of 4–6% between 2014 and 2016.

Accelerate! was intended to promote locally relevant product innovations while standardizing business processes. It required new organizational roles, accountabilities, and incentive systems to support desired behaviors, as well as a new culture of cross-functional collaboration.

Products: Creating Locally Relevant Innovations and Integrated Solutions

At the heart of the *Accelerate!* transformation was a conviction that Philips' success depended on creating "locally relevant innovations."

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[5] For example, within the Lighting Sector, Automotive Lighting was a Business Group comprising Business Categories such as Headlights and Signaling and Interior Lighting.

[6] Philips Business System v1.1, company-internal document, February 2013.

[7] Source: Interbrand website; http://www.interbrand.com/en/best-global-brands/2013/top-100-list-view.aspx; competitors' ranking in 2013: GE: 6, Samsung: 8, Siemens: 45, Sony: 46, Panasonic: 68

[8] Source: Philips website http://philips.to/1FIK1KQ

[9] Frans van Houten as quoted on http://philips.to/1IyQfkd

> *To truly satisfy customer needs, you cannot just offer a global solution because you over-simplify the differences between regional markets and individual customers.*
> —*Frans van Houten, CEO and Board Chairman*

Locally relevant products addressed the specific needs of a particular market that might differ from the needs of other markets for a similar product.

In the Consumer Lifestyle sector, for example, a beard grooming product designed for the North American market targeted different ethnicities, whose needs and preferences with regards to facial hair differed from other customer groups. In another example, the Philips team in China realized that expectations of the lifetime of entry-level shavers in China were far below those held in Europe—instead of seven years, the accepted lifetime of a shaver might be two years. In order to serve this market segment's expectations with regard to pricing, Philips had to redesign its shavers and how they were assembled and delivered. The food sector also presented significant local differences. Addressing the impact of recent food scandals around milk contamination in China,[10] Philips introduced soy milk makers allowing people to produce their own milk from soybeans. In Russia, Philips was selling a multi-cooker for preparing local recipes like Borscht, in one step: people could put ingredients into the cooker in the morning and time the machine so that they had a freshly prepared meal when arriving home from work.

Creating these locally-relevant innovations required deep market insight and an understanding of the context in which products were used. Hence, many of these products were developed locally.

On a strategic level, delivering locally relevant products were seen as a way to address the threat from, for example, Asian competitors who could produce and sell standardized products globally at lower cost.

> *We typically lose out when a market commoditizes and we no longer differentiate, further aggravated by us being too slow or expensive. Like in televisions, mobile phones, chips, etc. But by embracing local market distinctions and deeply understanding customer needs, there are always possibilities to differentiate. This makes us more successful.* —*Frans van Houten*

Besides increasing local relevance, another way to address competition was moving beyond individual products. In particular, Philips was identifying ways to help customers solve their problems by introducing integrated solutions. Integrated solutions combined multiple products and thus were harder for competitors to commoditize.

> *For example the next frontier in health care [is] driving productivity through the whole continuum of healthcare, helping doctors to collaborate effectively and driving more patient flow at lower cost. Though scanners, x-ray and ultrasound machines are high-end products, they also will commoditize and that game will be cracked by the Asians eventually. But if we integrate our medical scanners with clinical decision support software and workflow management to create more holistic solutions, deeply integrated within the organization of our customers, that will differentiate us from standard equipment vendors. So, the more complexity such a solution entails, the more we can keep the Asian competitors at bay, because they are perhaps good at high volume, one-size-fits all products, but less good at being a solutions partner with hospitals in the local context. While this is obviously more work for us and more difficult to execute, we are looking to make such rewarded complexity our competitive weapon.*
> —*Frans van Houten*

Locally relevant innovations, as well as integrated solutions were mostly aiming to improve Philips' top-line growth. At the same time Philips set out to standardize processes.

Processes: Standardizing Globally

While Philips wanted its businesses to create products that were relevant to local markets, it did not want them to design their own processes.

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[10] http://en.wikipedia.org/wiki/2008_Chinese_milk_scandal

> *We have hundreds of product managers. I cannot allow hundreds of product managers to invent their own process. It's unrewarded complexity when everybody invents their own process, as it hampers cross learning and efficiency. —Frans van Houten*

The idea was to standardize business processes globally. But the challenge of standardizing lay in Philips' diversity.

> *How do you standardize across 60 categories in 17 markets that do anything from building a light bulb to building a fully customized hospital suite, with lead times of 24 hours or lead times of almost a year? How do you deal with that diversity? —Rob Theunissen*

It was clear that selling an integrated healthcare solution to hospitals was not the same process as selling an electric toothbrush. So instead of going to a single global process, Philips decided to standardize processes within four different business models.

The four business models were Products (i.e., off-the-shelf products like shavers in the Consumer Lifestyle sector but also MRI scanners in the Healthcare sector), Services (like providing training or maintenance services), Software (e.g., a web-portal for doctors), and Systems (solutions integrating multiple products, services, and software, e.g., uniquely customized municipal lighting solutions). Each of the 60 Business Categories was gearing up to follow one of these business models.

Processes were expected to be largely standardized within a business model, even across different sectors. But each business model differed from the other business models in several core processes.

> *Whether you deliver an ultrasound machine from stock or a toothbrush or lamp—while there may be different levels of complexity, the delivery process is kind of similar. But clearly whether you sell shavers to Walmart is different from selling a complete healthcare solution to a hospital. These are different business models, because the sales are different, the way you price quotes and configure the solution is different, the way you manage and account for the delivery, etc. —Jeroen Tas, Executive Vice President and Chief Information Officer*

Philips identified three core processes: idea-to-market (I2M, concerned with turning an idea into a product, service, software or system, bringing it to the market and managing the product lifecycle), market-to-order (M2O, concerned with marketing the product and generating sales (orders)), and order-to-cash (O2C, concerned with the processing of an order including, for example, fulfillment, distribution, invoicing, payments handling). See Appendix 4 for a depiction of the processes.

In a company as diverse as Philips that had previously granted large degrees of freedom to design processes locally, Philips needed to find a way to convince people that standardization was possible and attractive.

> *Across all sectors, we have had to overcome the belief that we are different and therefore it's not possible [to standardize]. But we are getting there; people realize the benefit of learning, higher speed, scale leverage, and re-use. —Frans van Houten, CEO and Board Chairman*

To overcome the doubts, the entire management team of each business participated in a workshop for its business model. In each of these so-called "Winning Value Chain workshops", participants reviewed a generic list of around 100 high-level processes used by most companies with similar business models (see Appendix 3). Through a series of discussions and exercises, participants were expected to identify those high-level processes that were differentiating Philips from its competitors.

> *In the end, we get to about 10–15 [differentiating processes] in the first go. But then half of them are probably not differentiating. It's just where you have poor capabilities. So that brought the number down to around five in each business model. —Rob Theunissen*

While finding processes that required differentiation was important, the reverse implication was at least as important for Philips: all non-differentiating processes had to be standardized and follow common industry practices.

> *In one of those workshops within Lighting we figured out we had 17 different ways to send an invoice across business groups. And if we are not able to build a business case that these processes are a differentiator, then by default, it's just a standard process.*
> *—Edgar van Zoelen, Sr. Director, Cross sector Digital Enablement*

Philips used a number of criteria to test whether a process should be standardized.

> *The litmus test is: it's a differentiating capability if your customer is willing to pay for it, or the consumer, or an acquiring party is willing to pay for it. People started to get that actually being able to be very efficient in transporting goods from A to B can never be differentiating.*
> *—Mats Beem, Senior Vice President, End2End IT Landscape Simplification*

The only other reasons to exempt processes from following a global standard were legal and regulatory.

> *But if you say it cannot be standard, you'd better bring a lawyer, because then it has to have a legal or a compliance background.*   *—Mats Beem*

Of course, once designed, all those processes would have to be implemented in the field. Some business managers were skeptical as to whether this would go smoothly.

> *On a very high level, everybody agrees that we need, e.g., order processing. [...] But I still have my doubts whether from a laboratory perspective they can design processes that fit a variety range of businesses like Philips. So very quickly, when they start to implement and push the businesses to accept the new standard, that can create a lot of disruption in the organizations, compromise, or they will recognize that functionality is missing.*
> *—Eddy Walles, Supply Chain Improvement Manager, Business Group Consumer Luminaires*

Roles and Accountability: Creating Ownership

To design and anchor standardized processes organizationally, Philips added several roles: Business Model Owners, Business Process Owners (BPOs), and Business Process Experts (BPEs).

Each of the three sector leaders also served as Business Model Owner for at least one business model, across all sectors. Pieter Nota as the CEO of the Consumer Lifestyle sector was also responsible for the design and implementation of all the processes associated with the Products business model. Business Model Owners were responsible for the proper functioning of all the processes associated with their business model.

In addition, Philips had also assigned Executive BPOs to help define and enforce process standards across business models. For example, Ronald de Jong—besides being Chief Market Leader—was also the Executive BPO for the M2O process across the whole group. Similarly, there were Executive BPOs for the I2M and O2C processes across all business models. Executive BPOs appointed BPOs within the three core end-to-end processes and were expected to design processes that satisfied the needs of all business models and were as standardized as possible. While Philips had BPOs prior to *Accelerate!*, they were relatively low in the organization. Now, Executive BPOs were part of the Executive Committee, making end-to-end process improvement a leadership task.

Business Process Experts (BPEs) put the designs of the BPOs into action. The BPEs were primarily responsible for teaching and coaching people in the field on new process standards in day-to-day work, but they also engaged with BPOs on process design and continuous improvement.

> *Real learning happens for 90% 'on the job,' so you need people on the shop floor where the action is to actually raise their hands and ask: "This is not the way according to the standard, why are you deviating?" To get the right level of discipline in place. [...] The BPE's co-create the designs to create ownership and ensure practical relevance. You can't design in an ivory tower. In execution they maintain competency levels, drive continuous improvement and check execution against the standard.*   *—Rob Theunissen, End2End Transformation Leader*

In total, Philips was creating a network of 400 BPOs and BPEs on all organizational levels.

Organizational structure and accountability

Philips had long been divided into lines of business and geographic markets. To also promote the creation of locally relevant innovations, CEO Frans van Houten created the position of Chief Market Leader on June 1, 2011. As a member of the ExCo, this new role helped to empower the geographic market side of the Philips matrix.

Instead of moving from one extreme to the other, Philips made businesses and markets responsible for reaching their targets and "winning in the market" in a collaborative fashion. To that end, Philips introduced "Business Market Combinations" or BMCs. There were 400 BMCs which were virtual "end-to-end" teams, rather than real organizational entities. BMCs served a specific market with a certain product category, like male shaving in China or automotive lighting in North America.

In the BMC concept, business categories and markets shared profit and loss (P&L) accountability: business category leaders were responsible for the long-term realization of the P&L over one to multiple years (by designing competitive products and services), while market leaders held shorter-term P&L responsibilities to optimize on the market axis (e.g., through demand creation and pricing). Businesses and markets jointly agreed business plans and confirmed these with a "handshake" and worked together to realize them.

> *I've consciously opted for a collaborative P&L model [...] I want to have an equal play between businesses and markets, and people need to work together, come to joint solutions. This requires courageous conversations, but it is better to have these, instead of permitting underperformance. [...] The best companies find a way to run the matrix effectively.*
> *—Frans van Houten, CEO and Board Chairman*

People and Skills: Promoting Cross-functional Collaboration

Management realized that re-arranging processes and accountabilities implied a daunting change to how people worked together.

> *We want to work end to end to deliver relevant innovation to our customers, faster and with better results. But people were used to throwing things over the wall, causing disconnected flow. They often mistrust each other. We need to bring them together and team-up. [...] Just writing an Executive Decision from my desk is not going to solve that. Instead we invested deeply in change management of people's attitudes and behaviors. [... And] the art of change management was highly absent in the old Philips; we have made a massive step up in this area.*
> *—Frans van Houten*

One intervention to get people from product development, sales, operations, and other areas to work together across functional silos was the Accelerate Leadership Program (ALP, for executive level management), and the similar ATP (Accelerate Team Program, for operational teams). The ALP program was designed as a three-day offsite training to bring together leaders from different functions who were all working on a specific business problem. The idea was to create "end-to-end" teamwork across functional silos. In every ALP program, the team made an assessment of a current situation, established a vision of a compelling target state, then conducted a root-cause analysis to find the reasons that kept them from moving to the target state and they assessed their own role in what kept them from achieving a better result.

> *First of all, people deny that the problem is there. So, in the end you need to bring them in one room. Then they start blaming each other: "I could do it if only you did this." And then "end to end" comes in and people start realizing that "We could be successful if I do this, and I help you with that!" Now we are talking about input-output relationships, teaming up to excel. To make the whole chain successful means that we need to learn to work together instead of saying "I've done my job but you're failing."*   *—Frans van Houten*

The Business-Driven IT Transformation

The *Accelerate!* transformation set out to redefine how Philips did business. To support the new processes, Philips also needed to change its information technology (IT) systems.

> *I always had the ambition to replace IT and make it an asset rather than a liability.*
> *—Frans van Houten*

Two weeks after becoming CEO, Frans van Houten hired Jeroen Tas as Philips' Chief Information Officer (CIO). Tas and his team quickly determined that Philips' over 10,000 legacy systems were not suitable to support the new way of doing business.

> *We take 10,000 business processes, all uniquely different, and say, we really only need three core business processes [I2M, M2O, O2C]. But if you have this ball of twine, with a litter of kittens tying it all up into knots for 30 years, how do you cleanly insert that in that environment? You can't! So what we're doing is decommission everything and building all new.*
> —*Joseph F. Norton, Senior Vice President, Deputy CIO*

For example, Philips was running a total of around 60 different Enterprise Resource Planning (ERP) systems[11] that would have taken multiple years to combine, limiting Philips' options for creating cross-business solutions.

> *So we started thinking about how we can create a true plug and play business, because maybe we will evolve new businesses that may be composites from part of consumer lifestyle and part of health care. There's low probability you can just "tweak" your way into a solid solution. So we've got to go on to a new landscape that accommodates our new business models and at same time allows for rapid adaptation should the market demand it. But you cannot go on a new landscape without the associated business change. So the way we see it is that we are not changing IT, no, we're changing the way we run the business, enabled by a new IT landscape.*
> —*Jeroen Tas,Executive Vice President and Chief Information Officer*

As a result, Jeroen Tas and his team designed a new "green field" IT landscape for all of Philips: the so called Philips Integrated Landscape (PIL).

The Philips Integrated Landscape

The main pillars of PIL were several "platforms," i.e., the digital manifestation of the core processes (I2M, M2O. O2C), as well as supporting business processes like HR, legal, etc.

> *The platforms make sure that we are reusing our common components.*
> —*Anosh Thakkar, Vice President and Head of Architecture and Platforms*

Key technologies were selected for each platform: The first to be implemented was a standard CRM system, Salesforce.com, as the foundation for M2O; I2M processes would be built on a Product Lifecycle Management system; and an SAP ERP system would support O2C. An integration platform would allow these different process platforms to talk to each other, and a data platform (called "information factory") would enable all platforms to share data (see Appendix 2 for a high level depiction of the PIL architecture). The plan was that these platforms would be supported by less than 100 global applications—significantly less than the more than 10,000 applications Philips had prior to *Accelerate!*.

In theory, the design of PIL depended on how the processes were designed. But building platforms was time-consuming, so IT leaders decided to proceed without full process detail. This approach was consistent with plans to rely on standard, common practices. Thus, PIL drew from those practices embedded by vendors like SAP and Salesforce.com in their software systems.

> *For instance, if we select Salesforce.com, we know it supports consumer goods industries; we know it supports project companies like Schneider Electric, HP, and Cisco, so they probably can support our Systems model as well; and they support software companies. So we made an assumption that by selecting Salesforce.com we could fulfill most of the needs of our different business models. And similarly we sat down with SAP for our ERP and with PTC for our Product Lifecycle Management platform.* —*Jeroen Tas*

After deciding on the key technologies for each core process, Philips verified the assumptions in "lead deployments"—countries or businesses that were representative of the rest of the company.

> *These lead deployments help us to drill it down to the lowest level of work instructions. For Salesforce.com, we started in our biggest market in the U.S., and our most complex sector, Healthcare. And then we started bringing in others. And now we have a single instance of Salesforce.com.* —*Jeroen Tas*

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[11] Speech given by Frans van Houten at Rotterdam School of Management on Oct 4, 2013, summarized at http://bit.ly/1NjEm4U

In 2013, the M2O platform had been built out to a large degree with Salesforce.com, and Philips was in the process of selecting lead deployments for other parts of PIL.

The PIL architecture was designed in a modular way with "smart decoupling," to allow for re-using modules, but also for a "plug and play" replacement of parts should technologies or needs change. One key element for sharing data across different modules in this flexible way was the construction of the "information factory" data platform. The idea was to separate all core data (like data on customers) from the actual applications. While applications would work with their own data, the "master copy" of the data would reside centrally outside of applications. That way, all applications —even those deployed in a public Cloud —would rely on the same data, e.g., to enable serving customers consistently across different business models.

Another principle evolved around "configuration instead of customization." In the past, Philips had substantially changed—or customized—even those IT systems it had bought from vendors to reflect the specific needs of each business. As a consequence, every time a vendor provided an update to a system, Philips needed to test and potentially adapt its customizations, causing delays and high cost.

> *It was a six-month project just to apply a security patch. There are companies that spend less than €7,000 on that simple SAP adjustment. At Philips, it can be more than triple that cost because of the complexity. So many connections, so many different settings, and highly customized. Now we have to redo almost everything to make sure the system runs.*
> *—Edgar van Zoelen, Sr. Director, Cross sector Digital Enablement*

To avoid these situations in the future, Philips was determined to implement standard systems as supplied by vendors. Following the reasoning from the Winning Value Chain workshops, businesses should no longer request specific adaptations of systems supporting non-differentiating processes.

> *[In the past] the argument often was, 'I spend 100,000 in making something special in SAP. And I can demonstrate I get 300,000 back in one year. Why not do this?' The real question is, why don't you spend the 100,000 in a domain where you can differentiate in the marketplace? It's not about the individual business case. It's about, where should your money, energy, effort and brain share go? It shouldn't go in a place where you can never make a difference.*
> *—Mats Beem, Senior Vice President, End to End IT Landscape Simplification*

But even if businesses needed changes to accommodate distinctive processes, Philips' intention was to configure the standard system instead of customizing it.

> *For example, quotation in sales account management differs very much from a systems business model where you could have a €2 million quotation with sub-quotations versus a quotation for 50,000 baby bottles in our Products business model. But that doesn't mean you can't use the same platform. You just need to make sure that you configure your quotation process for that platform differently in a Systems business model as opposed to a Products business model.*
> *—Anosh Thakkar, Vice President and Head of Architecture and Platforms*

Unlike customization, configuration was usually done through settings residing in files or database tables outside of the actual system, so they were less affected by updates to the actual system.

To help avoid the kind of system customization that Philips business units had previously demanded, the BPO network was charged with governing exception requests related to core platforms.

> *We won't do anything unless the BPO community, who represent our Markets, Sectors and Functions, acknowledges that this is the right thing to do. We're no longer going to ask some guy in some business unit deep down what their needs are. No, we are dealing with [the BPO] to prioritize what's going into [the systems]. She or he is responsible to make sure he gets the input from the markets and the sectors. It used to be the other way around: I'm a business unit and I need to go and do this.*   *—Jeroen Tas, Executive Vice President and Chief Information Officer*

The plan was to have PIL in place by 2017. By late 2013, major parts of PIL had been designed and pilots had been run to confirm the technical feasibility, but the bulk of the implementation work was still in front of Philips. And while Philips had already decommissioned many of its over 10,000 applications, the remaining 6,000 was far from the target of less than 500 legacy applications. To promote a transition

towards utilizing PIL and to "starve" the legacy landscape, Philips introduced a cap on new investments in legacy systems.

Getting the Business-IT Partnership Back on Track

> *IT is a business partner again rather than a hated function. IT now starts shaping how we do business better.* —Frans van Houten, CEO and Board Chairman

Before building PIL, Jeroen Tas needed to change the way the IT unit was working together with other parts of the business.

> *I spent a lot of time personally with the leadership. I told them: 'I have good news and I have bad news. The good news is, IT is coming back to the business. The bad news is, IT is coming back to the business, so you have to manage it. So you cannot just sit there and beat up IT and then go on with life. It's your stuff, it's your cost. And my role is to help you make the right tradeoffs.'* —Jeroen Tas, EVP and CIO

Tas initiated three new practices to change the relationship between IT and the rest of the business.

Getting IT Portfolio Management Under Control

The first initiative aimed at changing the way Philips managed IT demand. Previously, costs for "consuming" IT services were charged back to business units using revenue as the basis for allocation: the more revenue a unit was making compared to other units, the more IT costs were charged to that unit. The result was that it was not entirely clear to business units what they were paying for and how they could influence their IT charges. Because business units were not charged directly for what they had "ordered," every unit was ordering a lot. To address this, Tas introduced a practice of defining and pricing IT services and then charging business units based on what type and how many services they actually consumed.

In a related effort, Tas focused on scaling back Philips' huge portfolio of IT projects. To do so, he insisted that every project had business leaders committed to getting value from its deliverables:

> *For the big projects, I asked the business to show me the business case and whether the business case was signed off by the business controller. I checked who was on the projects' steering committee and whether these guys were actually truly engaged and showing up at key meetings.* —Jeroen Tas, EVP and CIO

Around 60% of projects failed this test.

> *I cut a couple of big ones that lacked a solid business case and governance and appeared to be heading south just to make a case. And the reason we started with that is because you can have immediate effect. If you stop a project, you stop money going out of the door.* —Jeroen Tas

Optimizing IT Outsourcing

In a second initiative, Philips' IT outsourcing relationships were turned into so called "output-based partnerships." In the past, the IT unit had relied mostly on time and material contracts where vendors charged Philips based on how much time their people spent working for Philips. Those contractors were managed by Philips like internal employees. Besides incentivizing vendors to keep their people as long as possible on tasks for Philips, this model took responsibility for end-results away from vendors.

> *[They were] standing at the sideline saying, 'I'm delivering experienced and qualified resources. How you utilize those resources at Philips is up to you.'* —Job Verkerke, Director, IT Procurement

In May 2011, Philips terminated most of these contracts and sought new vendors. The result was a reduction of 1,200 contractors. Additionally, 350 employees were transferred to the new vendors and another 150 who had managed the contractors were let go. In place of the time and material contracts, the IT unit contracted with Cognizant and Wipro as new strategic partners who were paid for the delivered output. In some areas, improvements were immediately noticeable:

> *The moment we changed the contract, our vendors for application support and maintenance started writing scripts. Because a lot of what they were doing could be automated, but they never had an incentive to automate it.   —Jeroen Tas*

Redesigning How IT Operates

The third initiative restructured IT around four core IT capabilities and defined so called "multi-disciplinary teams" (MDTs). The MDTs were designed to mirror how the businesses were organized to further enable the business to take ownership of IT. Everyone in IT worked in a discipline aligned with one of four capabilities: Business-partnering (i.e., portfolio management); Architecture and Platforms; Delivery (e.g., project management and application development); and Infrastructure & Operations (i.e., IT infrastructural services and maintenance).

The core IT processes and deliverables of each discipline were following industry-wide standards like TOGAF for architecture, ITIL for operations, and Scrum for delivery.[12] Members of the different capability-groups should work together in cross-functional teams.

The change in the way in which IT worked together in MDTs with other parts of the business was most visible in the delivery part of the IT unit as it moved from a waterfall model of delivering projects to an "agile" mindset.[13] The idea was to avoid moving sequentially through the stages of software development, from requirements gathering to design and implementation of systems.

> *In the past we worked in a waterfall, where we asked, 'What do you want?' And we wrote down all the requirements. And then we let the business sign in blood and started building the system. And a year later [when the system was built] it turned out that it was not exactly what the business needed, or that it wasn't needed anymore.*
> *—Huub Vermeulen, Delivery Manager, Lighting*

Instead, an incremental and iterative approach to application development was employed that did not rely on full specification of all requirements upfront.

> *We had these thick requirements documents. And I was looking at this, saying, 'You've got to be kidding." Who's reading this, [...]doing IT that way is fundamentally flawed, because it assumes that you can know what things are going to look like five years from now, that you're capable of translating that into a level of detail and still hold it together and comprehend. I just don't believe people can do that.   —Jeroen Tas*

In the new approach, funded and initiated projects started with a "boost session," a workshop that could range from anywhere between 30 minutes and two days. The workshop's aim was to get a high-level understanding of the business problem to be solved and to define a "Minimum Viable Product." This was done via "user stories" depicting how people using the system (or "product") to be built would work once the system was in place. Multiple competing output-based partners sent a team to these workshops. A few days after the workshop, they would submit an offer (a so called "Statement of Work") for the project.

By 2013, Philips was running 150 Scrum teams in this agile way (up from seven teams two years earlier). Scrum teams were examples of multi-disciplinary teams as they included people from all major functions within IT as well as a business representative.

> *The team is like rowing a boat, and there's a partnership between Philips IT and Philips business to avoid the 'There's a hole in the boat, but thank God it's not on my side' issue. Together as a boat you'll win or not.*
> *—Charel van Hoof, Senior Vice President and Chief Information Officer, IT Delivery*

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[12] TOGAF stands for The Open Group Architecture Framework, see www.opengroup.org; ITIL stands for IT Infrastructure Library, see www.itil-officialsite.com; Scrum is an agile (software) product development methodology, see www.scrum.org.

[13]See e.g., agilemanifesto.org.

A typical Scrum team consisted of Philips employees and external (output-based) partners. The output-based partner provided the Scrum-master (a kind of project manager versed in the Scrum methodology) and developers while Philips employees provided the "product" owner, business analysts, and tech leads. Business analysts worked on mapping the business process flows into systems and their links. The tech leads cooperated with architects to ensure that whatever was built by the project leveraged existing IT-based components and complied with architectural and infrastructural standards. The product owner was always a Philips' business employee (non-IT) very close to the business problem to be solved.

> *It's critical to have a good product owner. Somebody from the business who really understands where the value is coming from, who can manage the business stakeholders, and make sure the solution is going to be deployed so that the actual value is captured.*
> *—Huub Vermeulen, Delivery Manager, Lighting*

He or she also had to prioritize the requirements that were addressed by the team in two-week long "sprints," putting the most value-adding requirements first. After each sprint, a working solution was ready to check to see if it addressed the problem. The goal was to create value as fast as possible.

> *[In a supply chain redesign project] we first focused on a small part of this supply chain network, and we were able to route containers differently. And that saved us €50,000 a week. So 1.5 months after the project start we already started saving. And that's a huge difference from the past, where we completed the projects as a whole and then we started getting the savings.   —Huub Vermeulen*

The quick iterations also helped to uncover solutions early that did not represent what the business needed:

> *The entire IT ecosystem is now built around the agile mindset where all activities are centered around the delivered business value and the short cycled iterations of continuous improvement, allowing us to 'Fail Fast.' The faster you realize you are on the wrong track, the faster you can change your game and focus on what does bring the intended value.*
> *—Edgar van Zoelen, Sr. Director, Cross sector Digital Enablement*

A key task of the product owner was also to manage stakeholders and respect different and sometimes conflicting interests without losing sight of his or her own objective.

> *For example, the product owner's focus might be saving supply chain costs, but the business process owner has another interest. He wants to standardize the capabilities. So you can imagine that there were some clashes. [...] And then we also have our business groups, and we have our markets. And they all have their own vision of things.   —Huub Vermeulen*

The teams were only constrained by a preset budget, architectural standards, and Philips' overall strategy and transformation objectives. Otherwise they were expected to run autonomously to achieve their own priorities (set by the product owner) and solve issues among themselves, rather than waiting for management to step-in. For example, an out-of-office reply by one of the executives within IT delivery read: "I expect the MDTs to take full ownership and use their empowerment to drive activities forward. [...] For urgent matters that cannot be solved within the Multidisciplinary teams, please contact [...]."

> *If the team truly takes accountability, there is a natural drive of the team to be successful and you have the leverage of peer pressure for potential non-performance within the team, which is much stronger than if the boss tells you what to do.   —Edgar van Zoelen*

After each project, a business sector controller approved the degree to which the targeted financial impacts had been realized.

People clearly enjoyed working in this type of setting.

> *Our (Scrum) teams are happier than they were before. They are having fun, creating value and getting higher [internal] customer satisfaction scores.   —Edgar van Zoelen*

Nevertheless, changing how IT and other parts of the business worked together was not easy:

> *[The biggest risk] is that business reverts back into the "I want this, you go and do it" mode, the old pecking order. We're one team, we're going to help each other achieve our business goals.*

> *That's very hard if people have worked differently for 20 years. It's not that people don't buy in on the logic, I think they do. They revert back to their old behaviors, because they are deeply ingrained. So the biggest obstacle is mindset.* —Jeroen Tas, EVP and CIO

However, Philips IT had made significant progress. The tight bureaucracy had been reduced substantially. For example, whereas in 2011, 72 signatures were needed to start a project, in 2013 four signatures sufficed. As a result, Philips saw the time it took to get a project started decrease from an average of five or six months to 100 days in 2012 and to 40 days in 2013. The future target was a maximum of 20 days. In addition, through a combination of measures, IT cost in 2012 had been reduced by €150 million, a significant part of the 25% IT cost reduction goal.

The Challenge Ahead

In late 2013, the *Accelerate!* transformation was in full swing and initial results were promising. For example, the Consumer Lifestyle sector was starting to benefit from locally relevant innovations.

> *Over the last 12 to 18 months, we've seen a very significant step up in the performance in the top line and the bottom line. And that is largely driven by locally-relevant innovations.* —Pieter Nota, Executive Vice President and CEO Consumer Lifestyle, Board Member

Philips had regained shareholder's confidence as its share price had doubled since its most recent low point in late 2011. It also achieved the mid-term goals for 2013 set in 2011. Still, a major challenge in this transformation was to have an organization of 115,000 people understand and buy into the newly introduced concepts.

> *So the people that are in the program, they fully got it. And that group is getting bigger every day. But I still think we have quite an amount of change management to do once we actually go out there and reach each and every business market combination, because there is still a load of people who we need to explain this to.* —Charel van Hoof, Senior Vice President and Chief Information Officer, IT Delivery

For example, a key concept of the transformation was to be able to deliver more locally relevant innovation while leveraging global scale, which was not easy to realize.

> *This requires us to think in terms of global platforms and customization for local customer needs. People need to put in the effort to work through these issues, instead of taking the short cut. This transformation requires people to differentiate between what complexity is wasteful and therefore should be eliminated, and what complexity is rewarded as it extracts more value from our customers. People struggle with my eagerness for nuance and depth. But the market is like that, to be truly successful you will have to learn.* —Frans van Houten

Despite these challenges, many employees were excited about the transformation effort:

> *I think this is the coolest part of the journey. We are all part of a huge transformation in a global organization. How many people can truly say they can have an impact on something fantastic like this? It can be tough at times, but by teaming up and being persistent we are able to deliver great results!* —Edgar van Zoelen, Sr. Director, Cross-sector Digital Enablement

And while Philips had made a lot of progress in defining business models, designing business processes, new roles and responsibilities, and while results from pilots looked promising, the bulk of putting these concepts into action still had to be done—something Philips hadn't always succeeded with in the past.

> *Philips always had bright and smart people, very often good strategies and very often lousy execution. Now we are embracing operational excellence, continuous improvement and becoming a learning organization. We are putting in place a business system which will allow us to innovate and achieve success in a repeatable manner. This system says 'here is how we work at Philips.' It enables us to start new businesses and bring them to global leadership, time and time again.* —Frans van Houten

It was clear to management that this was a make-or-break transformation for Philips.

Now, we're still in the middle of this [transformation], but for the sake of the company we will have to make it work and we will make it work. As long as we acknowledge that this learning journey is as much about system design as it is about changing our capabilities, mindset, and behaviors. —Rob Theunissen, End2End Transformation Leader

Appendix 1: Philips Financial Performance

Table 1. Philips performance over time; Source: (Semi) Annual Reports, Brand ranking from Interbrand website, Share price from Wolfram Alpha															
In billion Euro	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	01-12 2012	01-12 2013
Revenue	37.9	32.3	31.8	29	24.9	25.8	27	26.8	26.4	23.2	22.3	22.6	24.8	23.5	23.3
EBITA	4.6	--	--	--	1.9	1.6	1.4	2.1	0.7	1.1	2.6	1.7	1.5	1.1	2.5
Net Income	9.6	-2.5	-3.2	0.7	2.8	2.9	5.4	4.9	-0.1	0.4	1.5	-1.3	0.2	0	1.2
Profit margin (%)	25.3	-7.7	-10.1	2.4	11.2	11.2	20.0	18.3	-0.4	1.7	6.7	-5.8	0.8	0	5.2
Employees (in '000)	219	189	170	164	162	159	122	124	121	116	120	125	118	118	117
Brand ranking	42	55	60	59	65	53	48	42	43	42	42	41	41	41	40
Mean share price (€)	46.2	31.7	25.6	18.8	21.5	21.6	26.6	29.7	21.4	15.3	23.3	18.1	16.9	16.9	23.3

Table 1. Philips performance over time

Appendix 2: The Philips Integrated Landscape
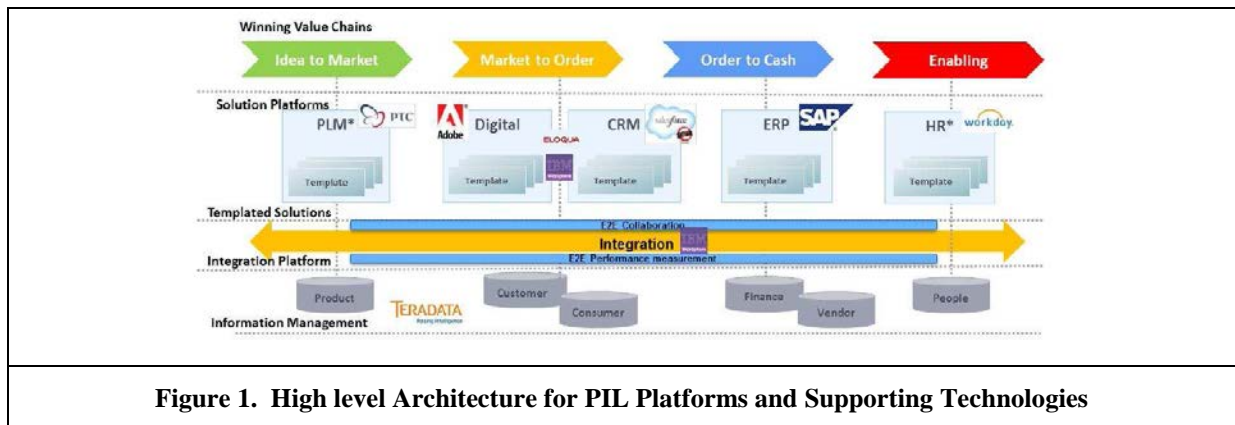

Figure 1. High level Architecture for PIL Platforms and Supporting Technologies

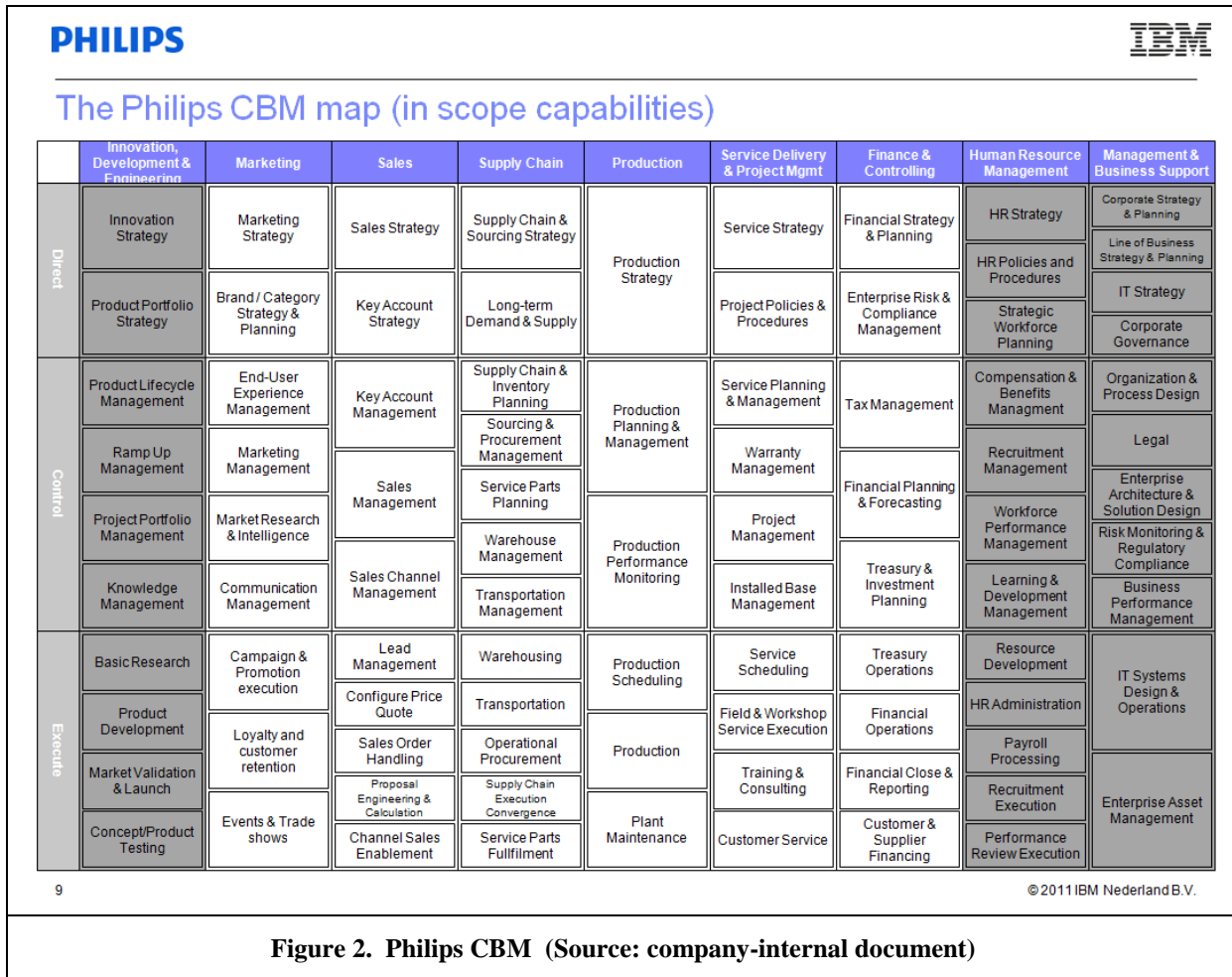## Appendix 3: Philips Component Business Model (CBM)

Figure 2. Philips CBM (Source: company-internal document)
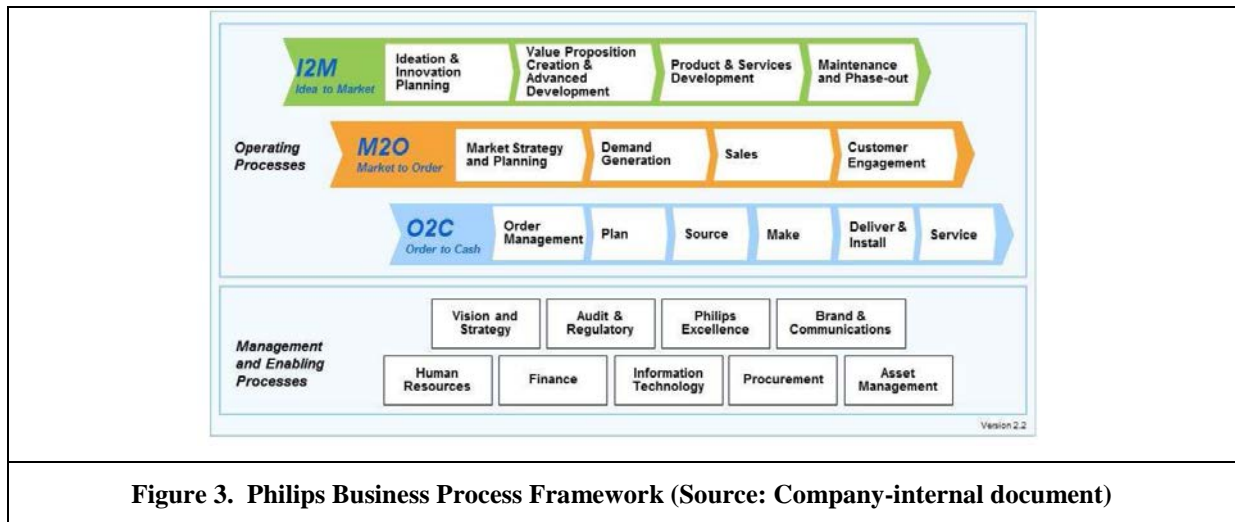
Appendix 4: Philips Core Processes

Figure 3. Philips Business Process Framework (Source: Company-internal document)

Acknowledgements