

## DIGITAL TRANSFORMATION AT NOVARTIS TO IMPROVE CUSTOMER ENGAGEMENT

*Researcher Polina Bochukova prepared this case under the supervision of Professor Donald A. Marchand as a basis for class discussion rather than to illustrate either effective or ineffective handling of a business situation.*

David Epstein, the head of Novartis's Pharmaceuticals division, was deeply moved when he saw the news on October 6, 2011 about Steve Jobs's passing. That same morning, Epstein posted an emotive message on his company internal blog (*refer to **Exhibit 1** for the full text*). This quickly became his most popular entry, attracting a thousand responses within days. An early technology adopter, Epstein had considered Jobs a role model since Novartis had launched Afinitor, a novel treatment for pancreatic neuroendocrine tumors, from which Jobs had suffered. Drawing a parallel with Jobs, Epstein painted a bold vision of Novartis's future.

... a visionary who would not take no for an answer... A man who could perceive customer desire in a very clear way, marry it with technology and compel an organization to execute at the highest level to deliver customers a truly unique and compelling experience.

At the time, the pharmaceutical industry was under siege, with regular price rollbacks and the powerful advance of generics frequently making news headlines. Many of the industry's leading companies, including Novartis, were cutting their sales forces, while sales representatives who still had jobs felt increasingly disengaged. Epstein bucked the trend. He introduced a strategic initiative that aimed to fundamentally transform Novartis's selling model. Central to the initiative was a state-of-the-art tool equipped with a new customer engagement platform integrated into CRM.

In his blog, Epstein committed to an aspirational goal of equipping 80% of the company's field forces worldwide with the latest iPad technology by the end of 2012, in just 15 months. A few months later, he set his teams an even more ambitious challenge: to equip 100% of the sales force by the end of 2013, which meant rolling out 25,000 new devices across the globe within a two-year period. This was no small feat, but simultaneously withdrawing legacy PCs could also prove dangerously disruptive. Epstein's bold vision was about empowering the front line and making their lives easier; it was about transforming the traditional pharma "Share of Voice" model to one based on meaningful customer interactions; and it was about challenging the organization to go above and beyond what many thought possible. He had thrown down the gauntlet and Novartis was about to embark on a digital transformation journey, with the ultimate goal of providing the right drug to the right patient at the right time.

---

Copyright © 2014 by **IMD**, Lausanne, Switzerland ([www.imd.org](http://www.imd.org)). No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means without the permission of **IMD**.

## ***Industry Background***

The healthcare industry experienced buoyant growth in the second half of the 20<sup>th</sup> century and the early 21<sup>st</sup> century, fueled by powerful demographic changes and continuous innovation in medical technology. Key industry stakeholders included payers, providers, suppliers and patients. Doctors, who bore the primary responsibility for diagnosing and treating patients, were traditionally trained to consider clinical risks and benefits in their recommendations without considering costs. What set the healthcare industry apart from other industries was that patients – the main beneficiaries of the industry’s services and products – had limited involvement in key purchasing decisions such as prescribing medicines or referrals to specialist care, and they had little exposure to the cost of their treatment. This unique industry structure had, in part, contributed to burgeoning healthcare costs across the globe.<sup>1</sup>

### **The Pharmaceutical Industry’s Good Fortunes**

From the early 1990s, big pharma companies had consistently commanded strong stock market valuations.<sup>2</sup> Although the pharmaceutical industry represented a minority share of global healthcare spend, total industry revenues grew almost five times between 1995 and 2011,<sup>3</sup> and the trend was expected to continue.

The main factors that fueled the growth were population increase and aging, greater prevalence of non-communicable diseases, surges in incomes and urbanization, and increasingly unhealthy diets.<sup>4</sup> Future growth was expected to come largely from emerging economies, as well as from drug customization based on genetic and behavioral variations, also referred to as personalized medicine.<sup>5</sup>

Traditionally, pharmaceutical companies invested about 10% to 12% of revenues in research and development (R&D).<sup>6</sup> Newly launched products had patent protection for 14 years, which enabled manufacturers to recoup research costs and maximize return on investment (ROI) during a set market window. Soon after patents expired, though, competition from generics pushed down revenues of brand-name drugs by as much as 90% in some markets. Meanwhile, R&D pipelines were expected to produce the next wave of blockbuster drugs to perpetuate the virtuous cycle of value creation.

---

<sup>1</sup> Keckley, P. “Health care: Just another industry or something different?” Deloitte University Press, October 24, 2012.

<sup>2</sup> Dhankhar A., Evers, M., and Møller, M. “Escaping the sword of Damocles: Toward a new future for pharmaceutical R&D.” McKinsey Perspectives on Drug and Device R&D, 2012.

<sup>3</sup> Buente, M., Danner, S., Weissbäcker, S., and Ranné, C. “Pharma emerging markets 2.0: How emerging markets are driving the transformation of the pharmaceutical industry.” Booz&Co, 2013.

<sup>4</sup> Popkin, B. “The nutrition transition in the developing world.” *Development Policy Review*, September 2003: 581.

<sup>5</sup> Klingan, F. “Personalized healthcare: Reaching the next frontier of medicine.” Bain audio slideshow, June 2012.

<sup>6</sup> Novartis’s Pharmaceutical Division invested 21% of net sales in R&D in 2012. Overall, Novartis’s R&D costs in 2012 represented 16.1% of net sales.

For many years, blockbuster drugs, which reached annual sales of at least \$1 billion, had accounted for an ever-increasing share of the industry's revenues. This was supported by growing field sales forces, which made "calls" to prescribing physicians – the main customer group – to promote the clinical benefits of their company's products. This business model, referred to as "Share of Voice," was based on the idea that a company's market share increased with a growing number of sales representatives. Toward the end of the 20<sup>th</sup> century, the number of pharmaceutical representatives was growing faster than that of doctors.

### Emerging Industry Challenges

As the century came to a close, the performance of traditional models began to decline. Despite growing revenues, profitability decreased dramatically between 2000 and 2010, mainly due to a unique set of challenges, such as the loss of patent protection for the majority of previously leading blockbuster drugs, declining R&D productivity, inroads by generics, accelerating downward pricing pressures, more stringent regulatory requirements and a shift in decision-making power from physicians to multiple stakeholders within the healthcare system.

Although the industry's collective investment in R&D grew over 20 times from 1980 to 2006, the number of drugs approved by the US Food and Drug Administration (FDA) in 1980 and in 2006 remained roughly the same;<sup>7</sup> the expected revenue increase from new blockbuster drugs had not materialized. Meanwhile, sales of generics were booming, and that growth was expected to continue, with payers increasingly looking to reduce costs through the wider adoption of prescription formularies<sup>8</sup> and evidence-based medicine. Physicians were no longer a singular and monolithic customer group for the pharmaceutical industry. Customers were becoming more fragmented and ever more demanding. Empowered by a wealth of information on the internet and through social media, patients, hospital managers, procurement professionals, health economists, pharmacists and nurses were increasingly influencing prescribing practices. The growing use of digital information, such as the advance of EMR and EHR<sup>9</sup> for example, made it increasingly difficult for physicians to select prescription drugs not on formulary, further decreasing their ability to impact drug selection.

Sales representatives were also finding it more difficult to gain access to physicians, who were making less time for or even closing their doors entirely to pharmaceutical sales representatives. Average visits with the physician lasted only a few minutes and often did not leave room for providing the most up to date information for diagnosing diseases or disease states of their patients. Some markets had introduced tight regulations, which heavily

---

<sup>7</sup> Garnier, J.P. "R&D: Rebuilding the Big Pharma engine." *Harvard Business Review*, May 2008.

<sup>8</sup> Formularies specify the list of medications that are approved to be prescribed under a particular insurance (private or public) policy.

<sup>9</sup> EMR refers to electronic medical records; EHR refers to electronic health records. While these terms are often used interchangeably, the former is, strictly speaking, narrower. EMR denotes the electronic record of health-related information on an individual that is created by clinicians from a single organization. In contrast, EHR denotes health-related information gathered cumulatively across more than one healthcare organization.

restricted sales promotions to physicians. Finally, the growing importance of emerging economies meant that, in the future, pharmaceutical companies would have to increasingly shift their focus to new geographic areas and develop new capabilities to succeed in those markets.

These fundamental shifts meant that successful pharmaceutical companies needed to rethink their traditional R&D and go-to-market approaches in order to seize emerging industry opportunities such as more dedicated treatment therapies and personalized medicine.

### ***Novartis: A Company Overview***

Novartis was formed in 1996 out of the merger of rivals Ciba-Geigy and Sandoz at a time when M&A deals were sweeping through the industry. At its inception, Novartis was a diversified business, with healthcare and pharmaceuticals accounting for just under 44% of revenues. By 2012 Novartis had transformed into a global healthcare company that employed 128,000 people in over 140 countries. Having more than doubled its revenues since its creation, in 2012 the company reached an estimated 1.2 billion patients across the globe.

Despite a 3% dip in revenues in 2012 compared to 2011, it reported a 4% increase in net income over the same period. It invested 16% of its revenues (or \$9.1 billion) in R&D, which was in line with the industry average (*refer to **Exhibit 2** for company financial highlights for the period 2008–2012*).

Novartis's mission was "to discover, develop and successfully market innovative products to prevent and cure diseases, to ease suffering and to enhance the quality of life."<sup>10</sup> The company pursued a strategy of focused diversification, in which it sought to access multiple, growing segments of the healthcare market. Its three strategic priorities were to extend its lead in innovation, accelerate growth and drive productivity.

Novartis had five divisions that operated worldwide: Pharmaceuticals, Alcon (Eye Care), Sandoz (Generics), Vaccines & Diagnostics and Consumer Health. The latter combined Over-The-Counter (OTC) and Animal Health. The Pharmaceuticals division, which sold patented prescription medicines, was organized into three business franchises: Oncology, Primary Care and Specialty Care;<sup>11</sup> it was by far the largest, generating 57% of Group revenues (\$32.2 billion) and accounting for 81% of Group operating income in 2012.<sup>12</sup>

### **Novartis Pharmaceuticals Division: Vision and Strategy**

On January 26, 2010, Epstein, who had been head of Novartis Oncology for nearly 10 years, succeeded Joseph Jimenez (who had been promoted to Novartis CEO) as the

---

<sup>10</sup> Novartis 2012 Annual Report.

<sup>11</sup> Novartis Oncology is organized as a business unit, responsible for the global development and marketing of oncology products. Primary Care consists of primary care medicines and established medicines. Specialty Care consists of ophthalmology, neuroscience, integrated hospital care, and critical care medicines.

<sup>12</sup> Excluding corporate income and expenses.

Pharmaceuticals division head. Epstein's leadership of the Oncology unit had been transformational, and his plans for the Pharmaceuticals division were equally ambitious. Two days after Epstein's appointment, Steve Jobs unveiled Apple's first iPad.

That year, Novartis embarked on a vision to become the world's best pharma company. Its strategy focused on "winning in Specialty, Primary Care and Oncology" based on three pillars – growth, innovation and productivity – and supported by what it considered to be the foundation of its success: its people (*refer to **Exhibit 3** for a schematic representation of the vision and strategy pursued by Novartis's Pharmaceuticals Division*).

Novartis's strategy in pharmaceuticals differed from its competitors in three ways. First, it made investing in innovation its highest priority.<sup>13</sup> Second, it focused on three specific market segments (Specialty, Primary Care and Oncology). Third, it aspired to excellence in execution, which meant being efficient, nimble and flexible to free up resources for further investment in innovation. A key feature of the strategy was the introduction of five World Wide Franchises within the General Medicines portfolio: Primary Care, Neuroscience, Ophthalmology, Integrated Hospital Care and Critical Care. Oncology would remain a separate business unit with a singular focus on meeting the distinct needs of oncology stakeholders. The objective of the business franchise model was to speed up decision making and empower local teams. For Novartis this model was radical as it would connect commercial and medical people in each franchise and it would connect the global teams to those in the countries. At the heart of this change was David Epstein's core vision for Novartis's Pharmaceuticals division:

Our goal is to match the right patient with the right drug at the right dose at the right time.<sup>14</sup>

Traditionally, global brand teams developed marketing materials based on market research and available scientific data. These global campaigns were sent to local country teams who were free to update them or use them as they were, depending on their capabilities and on how much local data they had or wanted to use. Some countries would only update global materials if there were local legal or regulatory differences. Others included locally available data. Still others developed entirely new marketing materials for their country. Global marketing campaigns were updated every six months or so.

On average, sales representatives in Primary Care performed 8 to 10 visits per day, during which they would communicate their country's current priorities. For example, in one six-month cycle, the messages might focus on elderly patients, in the next cycle they might focus on drug efficacy. Sales calls were conducted using the "A-to-B" selling model, a standard approach that involved five key stages: (1) opening and engagement; (2) problem set up; (3) delivering core messages; (4) trial closing and overcoming obstacles; and (5) closing the call. Typical detailing<sup>15</sup> aids included pdf files, PowerPoint presentations and other static printed documents.<sup>16</sup>

---

<sup>13</sup> Specifically, its aim was to develop over nine blockbuster drugs and reach a point where a third of divisional revenues came from newly launched products.

<sup>14</sup> Quote from David Epstein in Novartis's 2010 annual report.

<sup>15</sup> Detailing is a one-to-one marketing technique used in the pharmaceutical industry for providing information to physicians about company products.

<sup>16</sup> The Oncology division had a slightly different selling model.

This approach limited interaction between sales representatives and key customers, and the information went mostly one way, from Novartis to its customers. Novartis had no ability to collect data on what was being used or when. Hence it was virtually impossible to know which strategies were effective in helping physicians better treat their patients with the right drug for the right amount of time.

Epstein's vision of the future was that sales representatives would use available content more effectively, engage doctors in meaningful conversations and increasingly deliver value-added services rather than recite static messages. He wanted to increase the number of channels by enabling, for example, video conferencing with physicians, or even connecting medical experts into the calls to discuss specific queries. Developing these capabilities was not going to be trivial, given Novartis's disengaged sales force, as revealed in the 2011 global employee survey. There had been significant downsizing during the previous year and rumors of further imminent layoffs across the industry persisted. For Epstein, it was vital to win back the field force. "If your field force is not in the game, you can pretty much forget about outperforming the competition in the pharma industry," said Epstein in an interview.

Sales 3.0, a key initiative within Epstein's new strategy, was launched in the Fall of 2011 and was meant to re-engage, re-energize and re-equip the sales force. The iPad rollout constituted a major part of the re-equip strand of activities and it effectively launched the digital transformation program.

We are empowering our field force to engage in consultative, customer-centric sales by equipping sales representatives with the content resources and technology they need to engage with customers more effectively than any of our industry peers.<sup>17</sup>

### ***Winning through Customer Engagement: A Company on the Move***

Epstein's announcement about equipping Novartis's field forces across the globe with iPads struck a chord with the organization. But it also raised a lot of questions. In the days following his blog statement on October 6, 2011, hundreds of comments poured in from across the world: "How soon can we get the iPads? How much was it all going to cost? How was IT going to support this type of consumer mobile device for business needs? Was it wise to have a single-device policy for such a critical mass of Novartis's employees who could not afford to be disrupted? How would they ensure compliance with the stricter regulations governing the pharmaceutical industry product information across the world? How could all this possibly be done within 15 months?"

### **A Prelude to Digital Transformation: Customer Relationship Systems to the Fore**

Toward the end of his tenure as head of Oncology, Epstein had increasingly seen the need to engage customers in broader interactions than the traditional "Share of Voice" strategies. Oncologists no longer worked in isolation; they frequently operated in group practices or in larger organizations, and their prescribing patterns tended to follow those structures rather

---

<sup>17</sup> David Epstein, quoted by Mary LeBlanc in ITX presentation, September 2013.



than their individual clinical preferences. Oncology needed a more agile customer relationship management (CRM)<sup>18</sup> system than the group's current Siebel system.

David saw the changes in Oncology as a precursor to two seismic shifts in the pharmaceutical industry: the end of the blockbuster era and the rise of specialty medicines. Specialty medicines were more complex, targeted smaller patient populations and required a different way of communicating with payers and prescribers.

In June 2008 Epstein had authorized a CRM pilot for US Oncology proposed by Rainer Boehm, the then North American head of Oncology. The pilot was with Veeva Systems, a start-up company founded the previous year. Although the company was unproven, the technology behind it was solid. Veeva was an off-shoot of Salesforce.com, the cloud computing leader who, in 2007, boasted over 50,000 customers and over 1.1 million users. Veeva's products were all cloud-based, which allowed clients to "say goodbye to servers, lengthy and complex deployments and hidden fees."<sup>19</sup> The implementation of Veeva in US Oncology was a success, and, as a newly appointed division head in January 2010, Epstein continued to push for a wider adoption of Veeva (*refer to **Exhibit 4** for a high-level overview of key project milestones*). In September 2010 a global Veeva rollout plan was approved, but it was not particularly fast. While most Country Pharma Organizations (CPOs) were expected to go live during 2012 and 2013, some had deferred the Veeva implementation until 2014 and 2015. But this was about to change.

### **Viva the iPad! Veeva Implementation Gets a Boost...**

Lita Sands, then US executive director for multi-channel marketing, and Huw Tippet, then head of global commercialization, were asked to organize a cross-functional workshop on September 5, 2011. The purpose of the workshop was to explore the possibilities of deploying iPads for Novartis's sales force, which Epstein had been interested in since early 2011. They put tremendous effort into preparing the workshop, creating a vision video of how the iPad could transform Novartis's sales force.

Even before Epstein's blog there was plenty of hype about iPad technology, and the number of ongoing pilots in 2011 signaled that Novartis thought it should be using them in some way. Alice Ramos, iPad rollout program manager, who joined the project in October 2011, said:

We don't do one pilot, we don't do two pilots – when we started counting the iPad pilots at the start of the program, we discovered we had 42 pilots across the world!

Data from the pilots demonstrated that the iPad could galvanize the sales force: 80% of the sales representatives surveyed about their iPad experience said that it had a positive effect on

---

<sup>18</sup> A CRM system is essentially a database of customers, which helps sales representatives do their call planning and reporting. The system allows them to record activities, such as making a call or dropping off a sample, for example, for different customers. Customers can be tagged in various ways, for example, a key opinion leader (KOL) or a specialty physician. CRM functionalities differ depending on providers and the modules chosen.

<sup>19</sup> Veeva's website.

customer engagement; 77% said the iPad allowed them to work more efficiently; and 61% considered their productivity had improved with it. Mary LeBlanc, the Pharma division CIO (chief information officer), received the first summary of the pilot results on a Sunday afternoon, September 11, 2011. She immediately forwarded it to Epstein. The next day, a pivotal meeting of the Pharma Executive Committee (PEC) took place. Epstein addressed the PEC:

I want a fully working iPad with Veeva CRM, two killer applications, one with the camera and one of our critical administrative applications, I want to get rid of the laptops, and I want a demo ready by March 2012 for our Prague top 700 management meeting.

Many people within the organization heard a version of Epstein's challenge to the whole IT organization. LeBlanc recalled that key moment:

My first instinct was fear, thinking about all of the things that made this almost impossible to do. But within seconds I felt exhilaration because rarely as a CIO do you get to be the caretaker of such a pivotal transformational initiative and the opportunity to move from the back to the front.

But the challenge had also been given to the commercial organization. Linking the iPad rollout to the Veeva implementation and mandating the simultaneous replacement of both laptops and smartphones with the iPad device was a stroke of genius. Every CPO wanted the iPads; some CPOs also wanted Veeva; others who had just been through a lengthy Siebel implementation did not want to open the CRM implementation "can of worms" any time soon, but the clear remit that countries could roll out the iPad device only if they implemented Veeva hugely boosted the Veeva implementation.

Regardless of how country managers felt about the Veeva implementation, it was clear that many did not want to give up their laptop. Making the iPad a stand-alone device meant the program would be more cost effective. More importantly, the move signaled an important change in philosophy about the sales representative role. The entire program was moving so fast that there was no chance of transferring legacy systems to the iPad. That was the beauty of the program – if a representative could not do it on an iPad they should not be doing it at all!

In many countries, such as the Asia, Middle East and Africa (AMAC) region, sales representatives had never had a Novartis device because laptops were prohibitively expensive relative to the fully loaded annual cost of a sales representative; those countries were hugely excited about the iPad program. Stephan Lorban, CIO AMAC and Pharma Services,<sup>20</sup> remembered:

Getting the iPads and connecting to Veeva was like having five Christmases at once for a lot of AMAC countries, because sales representatives could at last be connected to the Novartis world.

---

<sup>20</sup> Pharma Services refers to countries where Novartis did business but there was no local legal entity.



## Leadership Challenges

Another major challenge would be finding the right leaders for both the IT and commercial organizations to spearhead the initiative and rally both organizations, which had previously co-existed in a fairly unconnected manner.

How could they find somebody of caliber to power through the iPad rollout? The Veeva program and initial iPad planning and piloting had been led by Amy Landucci, who had since moved on to become CIO for the OTC business and a new leader to implement the program had to be found quickly. LeBlanc thought Achim Plueckebaum, then CIO Europe, would be a great fit. His strong leadership, communication and execution skills combined with his in-depth IT and business experience at Novartis, and now heading one of the most complex regions in Novartis, would be perfect for the role that required multiple stakeholders to buy into a standardized platform – something that had never been done before. LeBlanc approached Plueckebaum just before Christmas 2011. He took some convincing, feeling that his job as CIO Europe was not done but, seeing the huge opportunities for him personally, for IT and for the company, in January 2012 he accepted the job.

Meanwhile, on the commercial side Sands was recruited as the global head of digital transformation. A seasoned multi-channel marketing professional with over 10 years' experience in the pharmaceutical industry and another 10 in financial services and telecommunications, Sands was passionate, visionary and a seasoned leader. She had joined Novartis two years earlier and was excited to be part of the iPad program:

I never considered the role as a risk. I wanted a seat at the table. I could see what was happening in pharmaceutical sales and marketing, how we desperately lacked the skillset to compete in a world that was changing so fast.

But it was unclear how Plueckebaum and Sands would work together; they admitted it was not easy at the start. Plueckebaum remembered:

We were married, but somehow we were not. While I had clear targets, Lita was coming from a different angle. As a newcomer, she had to embed herself in the commercial organization first. We needed to show quickly that we could deploy the combined iPad/CRM devices, while in parallel ramping up our global program office. In IT we were quickly in execution mode, the commercial teams around Lita were still putting together their plans.

To complicate matters, Plueckebaum had to keep his old job as CIO Europe for the first six months. He was fortunate to have a strong team and hired a few excellent resources from within and outside Novartis. Everyone wanted to work on this unique program. Ramos, the iPad program manager, was a “miracle, the weapon that we needed to get all of this done,” remembered Plueckebaum. Ramos led the iPad rollout and was the key interface with Novartis Global Infrastructure Services (GIS), whose past record and reputation within Novartis was challenged frequently. In fact, 2010 had been tough for GIS, with an average of 40 infrastructure outages per quarter. In 2011 GIS had taken steps to reduce outages significantly and to implement mediation actions for infrastructure across Novartis's 200+ IT sites globally, but unsurprisingly many doubted GIS's ability to provide reliable infrastructure services to support the iPad rollout program. The GIS team itself was deeply nervous about the prospect as LeBlanc recalled, “The team was terrified, they are so anxious about what is expected to be delivered within just a few months, they were raising all sorts of red flags.”

LeBlanc contributed to turning the situation around by promoting the concept of “fast fail.” She remembered telling the team:

This project requires something completely different. Speed matters in this project – I need you to try things and fail, and try them again very quickly. And if you do that I will support you all the way. You will not get in trouble for failing. The team completely turned around.

Another important requirement was the communications links, which Ramos’s team established with CPOs that were going through the launch process. Whenever CPOs had questions, they asked Ramos’s team for help. Being open and honest was paramount. In a “fast fail” environment it was OK to answer “we don’t know but we will figure it out.”

### **Overcoming Organizational Challenges**

Despite Epstein’s strong support, the program presented a number of organizational challenges. LeBlanc recalled, “The first thing I was told was that we had to do a frame CAR.” A frame Capital Authorization Request (CAR) was often used for a group of related programs, where one program depended on another to achieve common benefits. But LeBlanc successfully convinced the financial community that local iPad rollouts did not have interdependencies and that the benefits of rolling out iPads in any given country could be achieved irrespective of whether the program was implemented in other countries, so a frame CAR was not required and country-level CARs could be used on a case-by-case basis. This was crucial, as frame CARs were notoriously slow to obtain while local CARs could be approved quicker. LeBlanc recollected:

We had done some back-of-the-envelope calculations and estimated the project was worth around \$120 million. That would probably take, on average, approximately six months to get approved [as] it needs to go to multiple approval bodies... But we were working so fast that by the time you had predicted what it would cost you, the time would have been over. And this is one of our challenges at Novartis. Our financial approval processes want a level of certainty to commit money, but to reach that level of certainty requires a very long time.

The project was governed by a steering committee that included Epstein, LeBlanc, the heads of Global Product Strategy & Commercialization, Oncology Global Product Strategy, Pharma Communications, Legal, the Global CFO, Pharma General Medicines region heads and Oncology region heads. The Committee met monthly from the start of the project through to March 2012, and quarterly thereafter. Plueckebaum and Sands, who led these important meetings, used this very senior forum to report on progress, but also to align the stakeholders on some of the new principles of executing this program. By March 2013 a new program governance structure was proposed. Eric Cornut, Novartis’s chief commercial officer, remembered:

What this initiative has shown is that it is possible to take individual passion and vision and turn it into an organization-wide effort both in equipping with hardware, changing processes, and driving a new way of thinking. I think this is pretty unique. You could have a situation where there is talk at the top but nothing really happens, or you could have the emergence of an idea that gets eaten up and rejected by the traditionalism of the organization.

## Launching a LaunchPad... Novartis Takes Off in the Digital Content World

While Plueckebaum and his team focused on the iPad and CRM rollout across dozens of countries in parallel at any given time, Sands was busy figuring out how the sales force could benefit the most from the iPads. Although the closed-loop marketing (CLM) concept (which referred to the ability of marketers to adjust their messaging based on customer data and behaviors) had been successfully implemented in other industries, especially online retail, financial services and consumer goods, the pharmaceutical industry lagged behind. But the iPad technology could be used to capture detailed information about sales representative–customer interactions during the calls and improve understanding of customer preferences so that marketing messages could be tailored accordingly, thereby resulting in a more positive customer engagement and, therefore, better patient outcomes. This was the long-range goal, and the LaunchPad development was the first major hurdle.

In October 2011 Novartis issued a request for proposal (RfP) to creative agencies asking them how they would create a detail aid on the iPad; if they would use Veeva and why; and if they had prior experience with Veeva CRM. Veeva iRep had been launched almost a year beforehand and was being marketed as “the pharmaceutical industry’s first complete CRM and CLM solution built exclusively for the iPad.”<sup>21</sup> But some industry analysts claimed that iRep was still not using the iPad technology to its full potential.

INVIVO, a small private agency based in Toronto, worked with life science companies in the area of medical communications and had been working with Novartis since 2003, so it was invited to the RfP. Excited to be part of this challenge, INVIVO tasked a team of developers with pushing the boundaries and reinventing the navigation. According to INVIVO President Andrea Bielecki, contrary to the typical tablet detail aid where you have a simple drop-down menu (or a swim lane), in the iPad environment, where you have the touch functionality, “you want this to be almost an extension of the representative’s hand.” INVIVO came up with non-linear navigation that allowed the user to jump through the content seamlessly without getting lost or losing eye contact with the physician. Following research with sales representatives, INVIVO came up with the newspaper headline approach, which allowed the user to dive into details when the customer expressed interest. INVIVO’s other innovations included an interactive gaming mechanism and, most importantly, the ability to jump between the key messages, safety information and other apps and materials with one touch. The programming was difficult and had not been done previously but INVIVO did it before Veeva had figured it out. INVIVO’s final presentation in the RfP process was to demonstrate a detail aid in Veeva iRep, which no other agency could do. This was the prototype LaunchPad. INVIVO won the business in November 2011, and in December 2011 it started working with the global Galvus team on co-creating the first LaunchPad<sup>22</sup> (refer to **Exhibit 5** for an image of the Galvus LaunchPad).

Essentially, the LaunchPad was a well-organized framework from which sales representatives could easily pull any information they needed during a sales call – from interactive graphs to patient case studies. It replaced the traditional paper visual aids with interactive digital

---

<sup>21</sup> “Veeva Systems Launches First Integrated Pharma CRM and CLM Solution Designed for the Apple iPad.” Veeva Systems Press Release, January 11, 2011.

<sup>22</sup> Galvus was a dipeptidyl peptidase-4 (DPP-4) inhibitor used to treat type 2 or non-insulin-dependent diabetes.

materials and provided a seamless way to access all digital brand assets (references, patient tools and external apps). The LaunchPad was a major shift away from Novartis's traditionally linear way of selling. Ghaswalla commented, "If you look at the iPad and the LaunchPad it is hardly linear... it defies the rules."

LaunchPads were intended to be brand specific, but they always had a common look and feel and a standard layout, and the structure was intuitive, "a little like a Facebook page or a Google page." This type of grid was consistent between brands and countries. The user would always know what tools were available and where they were positioned, e.g. messages were on the left, patient profiles were on the right. Patient profiles might include two or three pictures of patients and a description of their healthcare history. In the case of Galvus, the patient profiles showed people diagnosed with diabetes and described what types of medication they were taking. Graphs to facilitate dialogue with physicians would also be shown.

Importantly, the LaunchPad moved Novartis away from its traditional business operating model where CPOs heavily adapted global messages to their local markets. For example, the initial launch of Onbrez happened simultaneously in 25 to 30 countries, but only about 45% to 50% of countries preserved the look of the global visual aid.<sup>23</sup> For the Onbrez LaunchPad, 80% to 90% of global marketing materials were replicated locally.

Prior to their introduction LaunchPads were routinely tested with sales representatives in multiple countries. Their feedback was used to refine the tool to enable more natural interactions with customers and to support short "hallway interactions." LaunchPad usability was validated across all three business lines – Primary Care, Specialty and Oncology.

By mid-2013 six LaunchPads had been developed<sup>24</sup> and 15 more were in production. As INVIVO was a small private company, it might have struggled to produce all the global LaunchPads as well as the localized versions, so it developed the "LaunchPad Content Creation Guidelines" to help other agencies carry out this work. The Guidelines allowed creative agencies and Novartis brand teams to collaborate in creating additional Novartis LaunchPads. The document guided graphic agencies through the creation of a Novartis LaunchPad Storyboard and the packaging of the files so that they were ready to be programmed by the production team. It covered several key topics, such as information architecture, graphic design, interaction design, file formats and technical specifications as well as storyboarding standards, file naming and packaging conventions.

### **Accelerating the Journey**

In March 2012 some 700 leaders from across the company gathered at the Global Pharma Summit (GPS) meeting in Prague. At the meeting, Epstein made an inspiring presentation during which he demonstrated the first LaunchPad. Meanwhile, 10 stations were set up in the lobby, so when the 700 attendees left the auditorium, they could interact with all the branded LaunchPads that had already been designed for the iPad, and were up and running and working live. LeBlanc recalled that day:

---

<sup>23</sup> Some differences were due to local regulations.

<sup>24</sup> These were for the following six drugs: Onbrez, Galvus, Gilenya, Exforge, Diovan and Exelon.

It was amazing, the energy when you walked out: people were really buzzing around. One woman came up to me and said “Oh my God. I thought it would just be a concept; it never occurred to me that we would see the whole thing up and running.” I was in tears. I thought “This is the height of my CIO career, I will never have an experience like this again in my lifetime!”

Epstein set another challenge at the meeting – to accelerate the entire program by six months and equip 100% of the sales force, or 25,000 sales representatives, by the end of 2013. For Epstein, speed was paramount in this initiative: If something was worth doing, why wait till 2014 or 2015 to execute it?

Despite this huge success, backstage, the IT and commercial teams were still figuring out how to best work together. In April 2012 Sands and Plueckebaum organized a week-long joint working session with their teams to develop an overall plan for the initiative. Plueckebaum and Sands had to figure out the best way to accelerate deployments across the globe, while at the same time working out how to change the business and selling models and embed these changes in the sales call. On the one hand, the IT team had to work directly with each CPO to ensure that technology was being procured and deployed appropriately and in a compliant way. On the other hand, the commercial Sales 3.0 Equip Toolkits were best deployed through a top-down change initiative, which the regional and local Sales 3.0 steering committees had to implement on a tailored basis. Over the week, they found that it was difficult to merge the two approaches. Plueckebaum recalled:

At the end of the week we realized that we lived in different worlds and while we had to co-ordinate our actions, there was no master plan per se. In a fast-moving program like this one, we had to build our collaboration on a few key things: trust, passion and commitment, and leave it at that.

By mid-2012 10,000 iPads had already been rolled out. In September 2012 the team organized a 10k party. The team wanted the party to be a visible sign to the organization that the initiative was there and it was successfully changing the way Novartis worked in the field. Epstein blogged about it, and Rob James, Novartis Group CIO, and LeBlanc created a short video to celebrate the significant milestone. Amazon gift vouchers were handed out to the more than 300 people working on the project at the time.

By Q4 2012 the program had reached an inflection point. The iPad rollout was a “done deal” and the priorities moved elsewhere. Plueckebaum recalled:

The success became normal. People became less interested in how many iPads we had rolled out, as it was expected that we would continue to deliver an excellent program...The question became: what else can we do? It was a bit of a paradox. We weren’t even half way through the deployment and they were already asking us for much more. For us as leaders it was key that we could do both in parallel: execute on our plans, and get ready for the next wave – the digital transformation of Pharma.

In fact, the iPad deployment continued successfully throughout 2013. In June 2013, Plueckebaum and Sands sent a celebratory note to the program steering committee regarding the 20,000<sup>th</sup> iPad rolled out:

When we embarked on this journey, we thought it was nearly impossible and our first roadmap had us finishing in 2015. It is only because of the dedication, support and leadership of you and



your teams that we are looking to complete this part of the digital transformation journey by the end of this year – in just about 24 months; 5,000 more to go. And we are just beginning!

### **The Next Frontier... From New Device to New Business Model**

The shifting focus brought Sands and Plueckebaum closer and closer. Their people had been working pretty much in parallel all along, but by mid-2012 they found themselves operating more like one team as they clearly recognized their interdependencies – Plueckebaum needed Sands's team to implement the LaunchPad and the commercial toolkit to help drive business adoption, while Sands needed to closely coordinate efforts with the deployed countries to ensure a positive kickoff and adoption. By Q3 2012, the two teams were working in a seamless partnership. Plueckebaum commented:

This became a dependency since with the LaunchPad, the iPad was not just a device anymore, it was a means to do business. This gave the program another incredible boost. The lines between IT and business started to blur, which was exactly what we wanted.

The program was evolving from merely equipping sales forces across the globe with the latest technology to expanding digital capabilities within the entire organization. For both Plueckebaum and Sands it meant that their leadership focus moved from pure execution of a program into transforming the way the company worked.

The orientation of the GPS meeting in March 2013 was to press forward with the digital transformation agenda. At the meeting, the program team held a one-hour session called "The Future is Now," which focused on the profound changes that digital and mobile technology were bringing to the pharmaceutical industry as well as other industries, including financial services, electronics, and automobiles. The response from the audience was incredibly positive – over 90% approval rating as measured during the presentation using a mobile app. Epstein, Cornut and LeBlanc saw an opportunity to drive the digital agenda even faster and farther.

Immediately afterwards, Cornut asked Sands and Plueckebaum to work on a new project called Next Generation Integrated Product Strategy (IPS) planning. Sands commented:

David wanted to transform the sales force so he changed the selling model. Now Eric, with his passion to also change the brand teams, is changing the heart of marketing at Novartis. We will be looking at the situation analysis, the strategic imperatives, etc. He wants to transform the process completely to something that can be delivered through an Apple iBook with multimedia, hyperlinks, links to social media, etc. This is his strategy to galvanize marketing.

The project, well underway with the first prototype, gave a first look into what marketing in the future would be like at Novartis – moving from static planning processes to a year-round engagement tool that would bring global and local teams closer and enable faster decision making and higher speed to market.

Meanwhile, the team continued to effectively partner toward the five digital transformation business objectives for 2013 set by Epstein.

First, they had to roll out the iPad and LaunchPad. The iPad rollout was on time, on plan and within budget, but LaunchPad development and adoption was lagging. With less than 10 global LaunchPads available by mid-2013, brand teams seemed somewhat disconnected from the



CPO cycle. They were continuing to create and refresh content twice a year, which worked well with paper based information, but fell short in the digital world. Sands asked herself:

The big question for 2013 was: Have we been able to change the brand teams so they operate in a digital fashion?

Second, the iPad camera had to be a real, usable tool to connect customers with Novartis's medical scientific community. This was promising because Novartis did not previously have the technology to facilitate face-to-face real-time calls between doctors and their scientific staff. Epstein commented:

Connecting MSLs<sup>25</sup> with doctors in real-time is something I will personally see happen before I am done with this project. I think there is real value added in that. This ultimately means that our medical people will have to be available somewhere in the world 24 hours a day to answer these questions.

Cornut added, "This has the potential to catapult the conversation to a different level, and it can be very, very useful."

Third, the data generated from the iPad devices should be used to generate business insights that could drive 2013 results. Data analytics was a big subject that was closely connected to the notion of CLM. Epstein emphasized:

We are slow to shift our strategy based customer data. The next wave of activity on this project will aim to use the data in real time to modify the messages we give to the sales forces.

Fourth, local adoption of the LaunchPad should be simpler, faster and less expensive... and innovative. Even though LaunchPad adoption was relatively slow, several key benefits could already be observed as a result of the initiative: Any CPO could provide content that could be shared across the company. For example, Scandinavia created an app for patients with Multiple Sclerosis, which had been subsequently used by other countries across the globe. Another example included a LaunchPad for a brand developed by the Canadian CPO, which was later shared across the world through the company intranet. Sands commented:

We have turned the model on its head and created a flat organization for a multiple set of functions, essentially creating an internet for our company.

Instead of the traditional top-down "old world" sharing model, the program enabled "local-to-local" and "local-to-global" sharing. In practice, this meant that local creativity had been unleashed. Cornut observed:

The bar will be that we will have minimal standards: whatever comes out of the center has to be operationalized and we will not let countries fall behind. However, we will have to have the humility to also accept that sometimes a differentiated approach might be needed. If a CPO is ahead of the game and they are using enhanced digital tools successfully, then they should be left to do that. Equally, if a CPO is struggling, we should be careful not to push content or approaches on them if they are not ready for them.

---

<sup>25</sup> MSL refers to Medical Scientific Liaison.

In any case, one thing seemed clear to Cornut:

Basel will not be the place from which a local campaign is led.

To help further accelerate LaunchPad adoption at reduced costs, the Novartis Pharma shared service organization – Global Business Services (GBS) – headed by Emmanuel Puginier got involved. GBS was tasked with building a centralized digital production facility to enable fast adaptation and deployment of LaunchPad and other digital solutions to the countries.

The fifth and final objective focused on creating a governance mechanism to further embed digital capabilities at the local level. In March 2013 a new governance system was created. The Digital Transformation Steering Committee would still be chaired by Epstein, but its function was meant to become more visionary, less hands-on. The Digital Transformation Operating Committee, which was chaired by Cornut, LeBlanc and Puginier and was composed of regional and global representatives, would meet bi-monthly. It would become the operational engine of the program and be entrusted with embedding the notion of digital transformation in marketing and brand management strategy and execution. Finally, the [dt]<sup>2</sup> (Digital Transformation Accelerated) community, the third layer of the program governance structure, was a group of Digital Champions and Regional Digital Transformation leads who would meet quarterly and add the scale and depth of capabilities needed to make the change to a digital mindset stick.

### **Taking Novartis's Digital Transformation to the Next Level**

To further press the agenda, Epstein approved a Digital Immersion Workshop at Plueckebaum's and Sands's recommendation. The workshop began on October 7, 2013 and lasted 2.5 days. It brought together over 130 top Novartis decision makers and prominent speakers from digital leaders such as Coca-Cola, Philips, Thomson-Reuters, Apple and Salesforce.com who shared stories about their transformative digital journeys.

The workshop was structured around four themes (customer centricity, co-creation, market making and digital culture). Customer centricity was about putting customers at the heart of everything Novartis did. Co-creation dealt with building products and services differently, side by side with customers. Market making focused on the topic of anticipating and seizing market opportunities. Finally, digital culture focused on the notion that to truly embrace digital, Novartis's culture had to evolve to embody the core tenets of digital (speed to market, collaboration and smart use of data).

The event was a phenomenal success. There was a strong sense that this marked the beginning of a new era at Novartis: an era of speed over perfection, an era of collaboration and connectedness that transcended geographies, functional responsibilities and established organizational structures. Digital technology was beginning to bring a wholesale transformation in the way Novartis engaged its customers and went to market. As the Digital Immersion Workshop was drawing to a close, Epstein and the entire project team felt an overpowering sense of achievement and profound excitement with the journey ahead:

I truly believe that we are still at the beginning of this transformation and that there are many more opportunities for us to embrace... This is an unprecedented opportunity for our company – as we move to an era of personalized marketing and medicine. We need these tools to maintain our strong leadership and to support our goal of being the best pharma company by 2016 – with the support of digital.

Plueckebaum and Sands were satisfied with what they had accomplished: Digital became part of the Pharma business strategy – the beginning of the next phase of the transformation – now for the whole company. Most importantly, it meant that Novartis was well positioned to advance Pharma’s vision of ensuring that customers had the information they needed to drive better patient outcomes.

**Exhibit 1**  
**David Epstein's Blog Entry on October 6, 2011**

**In memory of Steve Jobs – a role model**

Posted on 9.52 AM, 06 October 2011 by Epstein, David

Today a great man has died – one who has forever changed the world. A great innovator, a corporate leader and a visionary who would not take no for an answer. A man who could perceive customer desire in a very clear way, marry it with technology and compel an organization to execute at the highest level to deliver customers a truly unique and compelling experience. A man I adopted as a role model as we began to galvanize our organization to launch Afinitor at a meeting of our Oncology leadership held in Mexico in 2008. Ultimately, after a long fight he succumbed to the ravages of PNET (pancreatic neuroendocrine tumor), a cancer for which Novartis now has two approved medicines: Sandostatin LAR and Afinitor. With Steve Jobs's death it is clear that we cannot rest as we work to discover, develop and commercialize still better medicines. It is medical intervention – great doctors, surgery, medicines and more – that allowed us to enjoy having Steve on this planet just a little bit longer so he could inspire a new generation and give us great inventions like portable digital music, the iPhone, the iPad and iCloud.

In his memory we commit today that more than 80 percent of Novartis Pharmaceutical field forces around the world will give up their PCs and be executing their call planning, detailing, emailing, and communicating with each other and physicians via iPads before the end of 2012. Please help me to make this a reality. As a result we will be able to make more impactful calls thus better able to ensure that every patient who should be on one of our medicines has access. Our marketers will be empowered to more quickly update digital detail aids and interactive apps with the latest information. Our marketers will better understand almost instantly what our field forces find helpful in their daily work and what is useless. Our field forces will be able to get more of their work done during the day while waiting for their next appointment rather than doing administrative work later in the day. And there are many other possibilities. Let's use our positive memory of Steve to do some more good in the world. I know we can.

## Exhibit 2

### Novartis Financial Highlights

#### Key figures (\$USD million, except employee data)

	LTM <sup>(1)</sup>	2012	2011	2010	2009	2008
Revenue	57,139	56,673	58,566	50,624	44,267	41,459
Operating income	11,374	11,511	10,998	11,526	9,982	8,964
Net income	9,528	9,618	9,245	9,969	8,454	8,233
Core Research and Development <sup>(2)</sup>	9,479	9,116	9,239	8,080	7,287	6,776
Group Free Cash Flow	n/a	11,383	12,503	12,346	9,446	7,646
Total assets <sup>(3)</sup>	121,072	124,216	117,496	123,318	95,505	78,298
Total liabilities <sup>(3)</sup>	51,444	54,997	51,556			
Total shareholder equity <sup>(3)</sup>	69,628	69,219	65,940	69,769	57,462	50,437
Number of associates (FTE) <sup>(3)</sup>	n/a	127,724	123,686	119,418	99,834	96,717

Notes:

- (1) Latest twelve months (LTM) ending June 30, 2013
- (2) Core results for R&D eliminate the impact of acquisition-related factors and other significant exceptional items.
- (3) Balance sheet items. Results are as of December 31 during a given year with the exception of the latest balance sheet information available, which is as of June 30, 2013.

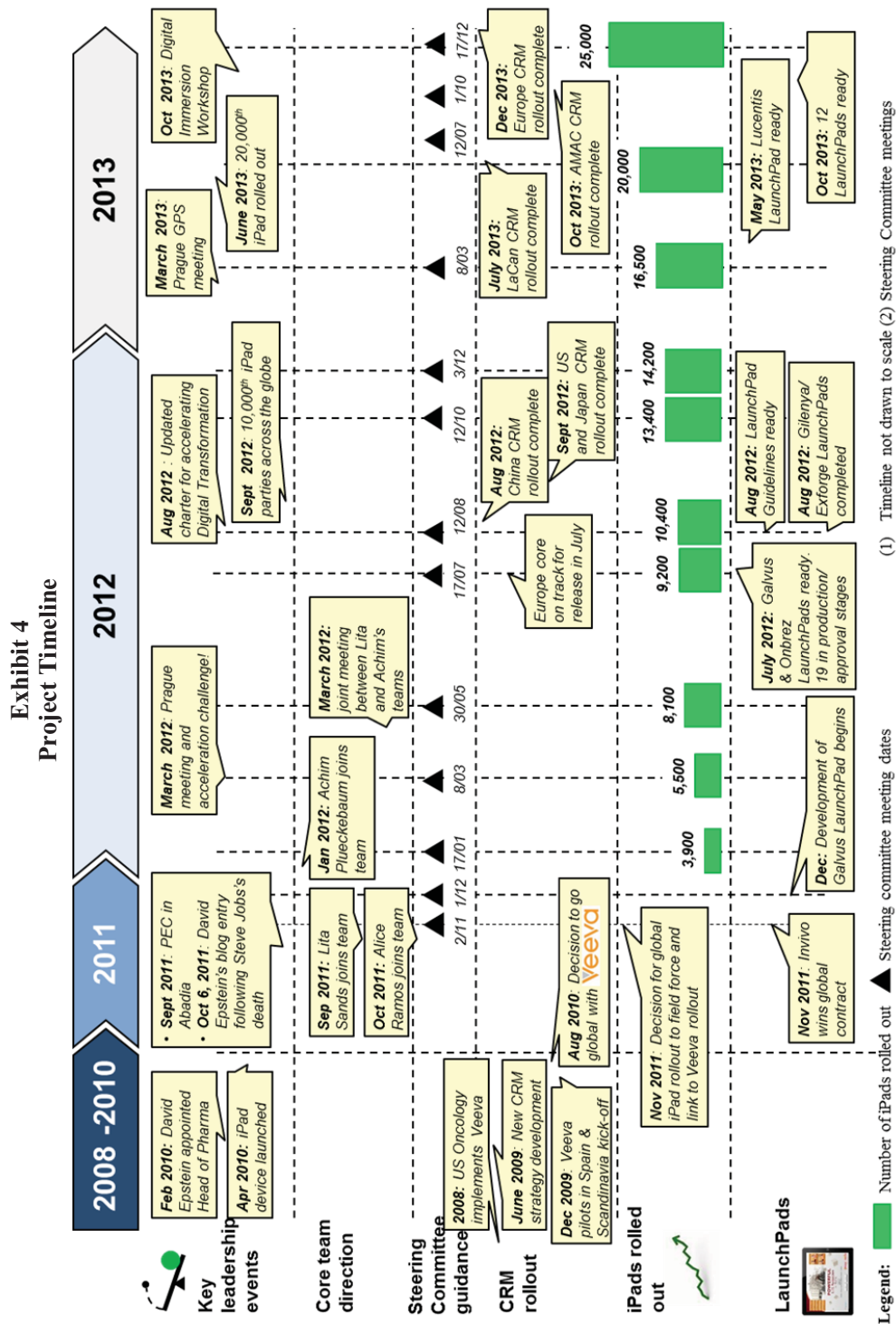
Source: Novartis 2012 Annual Report; Novartis condensed financial report H1 2013

**Exhibit 3**  
**Novartis Pharmaceutical Division Vision and Strategy**



Source: Company documents





Source: Company interviews and documents

(1) Timeline not drawn to scale (2) Steering Committee meetings

## Exhibit 5 Example of a LaunchPad



**WHEN UNCONTROLLED ON METFORMIN**

**WHEN METFORMIN IS INAPPROPRIATE**

**WHEN A THIRD AGENT IS NEEDED**

**WHEN INSULIN IS REQUIRED**

**24-HOUR DPP-4 INHIBITION WITH GALVUS®**

**EFFICACY IN THE REAL WORLD**

**AN ESTABLISHED SAFETY PROFILE**

**RAMADAN**

**ELDERLY**

**HYPOGLYCAEMIA**

**RENAL IMPAIRMENT**

**CV RISK**

**POWERFUL 1.1% REDUCTION in HbA1c<sup>1</sup>**

Before implementation, you must ensure compliance with all applicable laws and regulations, including local industry codes, as well as local Novartis companies' policies.

**EFFICACY YOU CAN SEE**

**NOVARTIS**

**PREScribing INFORMATION**

**REFERENCES**

**Galvus®**  
vildagliptin

**Galvus Met**  
vildagliptin/metformin

Source: Company documents