

# Managing the Technology Acquisition Integration Paradox at SAP

Henningsson, Stefan; Kude, Thomas; Popp, Karl Michael

*Document Version*  
Final published version

*Published in:*  
ICIS 2016 Proceedings

*Publication date:*  
2016

*License*  
Unspecified

*Citation for published version (APA):*  
Henningsson, S., Kude, T., & Popp, K. M. (2016). Managing the Technology Acquisition Integration Paradox at SAP. In *ICIS 2016 Proceedings* Association for Information Systems. AIS Electronic Library (AISeL). Proceedings of the International Conference on Information Systems Vol. 37

[Link to publication in CBS Research Portal](#)

## General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

## Take down policy

If you believe that this document breaches copyright please contact us ([research.lib@cbs.dk](mailto:research.lib@cbs.dk)) providing details, and we will remove access to the work immediately and investigate your claim.

Download date: 31. Jan. 2023



# **Managing the Technology Acquisition Integration Paradox at SAP**

*Research-in-Progress*

## **Stefan Henningsson**

Copenhagen Business School  
Department of IT Management  
Howitzvej 60, 2000 Frederiksberg,  
Denmark  
sh.itm@cbs.dk

## **Thomas Kude**

ESSEC Business School  
Department of Information Systems,  
Decision Sciences and Statistics  
Avenue Bernard Hirsch, 95021 Cergy  
Pontoise Cedex, France  
kude@essec.edu

## **Karl Michael Popp**

SAP SE  
Dietmar-Hopp-Allee 16, 69190 Walldorf,  
Germany  
karl.michael.popp@sap.com

## **Abstract**

*In this paper, we report on a novel approach developed by SAP AG, the German enterprise software company, for managing the integration of acquisitions of companies to access innovative technologies and related capabilities: the Product Council approach. The value of the Product Council approach rests in ensuring critical speed while not compromising accuracy in the integration process. For SAP, the Product Council became a vital component in its technology acquisition capability that allows the company to retain its technological edge in the hypercompetitive software industry.*

**Keywords:** Acquisition, M&A, innovation, integration paradox, case study

## **Introduction**

For SAP, learning how to acquire small, innovative technology companies became essential to manage the disruptive forces of the Internet. Successfully executing a stream of acquisitions of innovative technology companies, SAP managed to exploit the technological shift to fortify its position as the leading provider of enterprise software. Even more importantly, SAP institutionalized its technology acquisition capability as a strategic means to retain its technological edge in the hypercompetitive software industry.

When enterprise customers increasingly transited to software-as-a-service and cloud technologies, the alternatives provided by SAP SE, the German enterprise software company, were typically not among the preferred options. To retain market leadership, SAP embarked on an ambitious acquisition program targeting smaller and younger companies with innovative offerings taking advantage of the new possibilities for enterprise software.

However, SAP soon realized that the acquisition of technological innovation presented its distinct set of challenges. Paradoxically, to fully exploit the acquired innovative technologies and the related capabilities, extensive integration with SAP's existing products and capabilities was required. Yet, the very same integration could also severely damage the innovative capabilities of the acquired business. After initially stumbling in its search to find mechanisms allowing the company to balance this integration paradox, SAP eventually found solid ground in its 'Product Council' approach for governing integration work in a way that maximized the synergistic effects and minimized the disruptive effects of integration.

This paper details the workings of the Product Council approach and explains how it allowed for balancing the integration paradox in the specific acquisition of hybris, an innovative German/Swiss provider of solutions for omni-channel commerce.

SAP's experiences from the Product Council approach to integration governance has direct implications for other software providers that need to balance the integration paradox in a software setting, but also more broader implications for the many companies in industries affected by digitization. With digitization follows rapid change, short technology cycles, and increasing degrees of innovation-based competition. To effectively compete in such industries, companies can no longer rely only on internal innovation but also need to foster capabilities for effective technology acquisitions. To this end, learning from one firm that learned to master the challenge can help.

## **The Technology Acquisition Integration Paradox**

The software industry is often cited as the epitome of hypercompetitive industries. It is characterized by high-velocity innovation (Brown and Eisenhardt 1997), technological change (Schmalensee 2000), and turbulence in revenues, market shares, and profits of firms (Schmalensee 2000; Shapiro and Varian 1999). In hypercompetitive industries, firms compete extensively on innovations that create transient competitive advantages (Brown and Eisenhardt 1997; D'Aveni 1999; McGrath 2013). However, technological innovation activities are subject to path dependency (Cyert and March 1963; Kogut and Zander 1992) and time compression diseconomies (Dierickx and Cool 1989) that limits internal innovation possibilities. Moreover, smaller and younger firms are frequently more innovative than large, established firms (Zenger and Lazzarini 2004). This is particularly the case for truly groundbreaking innovations that radically transform industries (Balasubramanian and Lee 2008).

Therefore, acquisitions have become essential tools to retain the technological edge in hypercompetitive industries (Kale et al. 2002; Leonard-Barton 1995; Toppenberg et al. 2015). Technology acquisitions can contribute toward this end in three different ways. First, technology acquisitions allow acquirers to avoid the time-consuming, path-dependent, and uncertain processes of internally innovating technologies (Dierickx and Cool 1989; Leonard-Barton 1995). Second, of equal or superior importance are the associated capabilities that allow the acquired unit to exploit and compete on the innovations. Much of the value of technology acquisitions resides in the tacit and socially embedded capabilities for exploiting the innovation (Graebner 2004). Third, technology acquisitions may also provide acquirers with an opportunity to internalize an organizational unit that is capable of producing further innovations. Acquirers can 'graft' the resulting innovation streams onto their own organization (Huber 1991; Puranam 2001) and exploit the fruits of the acquired firms' inventive efforts by linking them to their own assets in manufacturing, marketing, and distribution (Doz 1987; Williamson 1975).

The management of technology acquisitions is, however, far from simple. Frequently, the potential combinatory benefits are eroded by problems of integration, and technology acquisitions are prone to high failure rates (Chaudhuri and Tabrizi 1998; Hagedoorn and Duysters 2002; Steensma and Corley 2000). Integration problems are commonly attributed to a paradoxical tension between the needs for integration and autonomy. On one hand, post-acquisition integration and resource reconfiguration is necessary in order to exploit potential synergies between the acquired and acquiring firms (Capron 1999; Capron and Mitchell 1998; Larsson and Finkelstein 1999). In software industries, specifically, integration relates predominantly to the 'suiting' of software products. Customers prefer software products that are systems of complements (e.g., office productivity suite as a whole) over stand-alone products (e.g., word processor alone, spreadsheet alone, and presentation package alone) because the value of integrated software products is greater than the sum of values of the individual products (Lee et al. 2010). For software companies, the ability to create suites of complementary software products that are more valuable to the customer as an integrated whole is the key driver for acquisitions.

On the other hand, the very same integration processes may damage the acquisition and be detrimental to acquisition performance (Chatterjee et al. 1992; Very et al. 1997). Research shows that acquisition frequently damages targets, both in terms of the targets' financial performance compared to comparable firms that were not acquired and in terms of innovative capacity (Kapoor and Lim 2007; Puranam and Srikanth 2007; Ranft and Lord 2002). Such value destruction is attributed to a loss of autonomy in the acquired unit, inhibiting both technology-related exploitative capabilities and future innovation potential. The innovative edge of the acquired unit gets lost as the target gets drenched by work to realize the integration and internalized into the larger acquirer.

Hence, a major challenge of technology acquisition is creating synergistic value through integration without damaging the target in the process (c.f. Böhm et al. 2011; Henningsson 2007). Strategies to do so include assuming a hybrid integration approach, integrating only what needs to be integrated (Puranam and Srikanth 2007), or integrating some functions more quickly than others (Puranam et al. 2006). However, such hybrid strategies are fundamentally contingent on the acquirer's ability to isolate the areas of the acquired business to be protected during the integration. Because the targets' products are often still under development, leaving both technical and market success in question, the acquirer may have a limited understanding of which capabilities in the target to preserve and nurture (Toppenberg and Henningsson 2014; Toppenberg and Henningsson 2013). Thus, acquirers risk decommission of valuable capabilities before they are fully understood. In addition, given that technology acquisitions are often undertaken in order to speed products to market, actively delaying the integration process to gain time for working out what to integrate and what not may be problematic (Graebner 2004).

The value of the Product Council approach detailed below is that it provides a governance framework for SAP to immediately commence integration work in a way that minimizes the disruptive effects on the target. Through its foundational principles, assigned resources, and authorized roles, it is an essential practice for balancing the integration paradox and allowing SAP to use technology acquisition for retaining its technological edge.

## **SAP and its Need for Technology Acquisitions**

Founded in 1972, SAP SE is a multination company headquartered in Walldorf, Germany. With revenues of almost €21bn and close to 77,000 employees in 2015, SAP is one of the largest software firms worldwide. The foundation for SAP's market position was the development and widespread use of its enterprise resource planning (ERP) systems, e.g., the client-server-based SAP R/3 (Antero et al. 2013).

In 2005, SAP started to realize that it needed to enter the market for on-demand enterprise solutions and other new technology areas to support a client base that was transitioning to a digital world. Following its traditional and proven approach, SAP initially tried to do so through organic growth. However, SAP's established (e.g., Oracle) and emerging (e.g., salesforce.com) competitors were able to quickly and significantly increase their market shares in the area of cloud software and other competitive spaces. Consequently, SAP's executives decided to move away from its original strategy of organic growth and instead rely on acquisitions to gain market share and new skills. This strategic shift resulted in a multitude of smaller and a number of larger acquisitions. For example, SAP acquired the business intelligence company Business Objects in 2008 and the database company Sybase in 2010.

At SAP, small targets are typically integrated as fast possible—mostly because these companies often do not have a scalable business model themselves. For example, the recently acquired French startup Multiposting had inefficient sales and customer services that could only be improved through quick integration. For medium to large acquisitions, including the ones of Business Objects, Sybase, and hybris, the situation is more complex because these companies already have a functioning and successful business model in place. In SAP's recent acquisition history, the pendulum was swinging between quick integration and extended autonomy of acquired companies. For example, when SAP acquired Business Objects, SAP quickly integrated the two organizations and their products. According to a senior executive, SAP *“ended up breaking a lot of business processes and then afterwards had to fix them.”* When acquiring Sybase, SAP did the opposite and left the target rather independent, which *“wasn't a great strategy either.”* Specifically, *“the relationship was relatively distant and there were some issues about getting the data we wanted and the visibility we wanted.”*

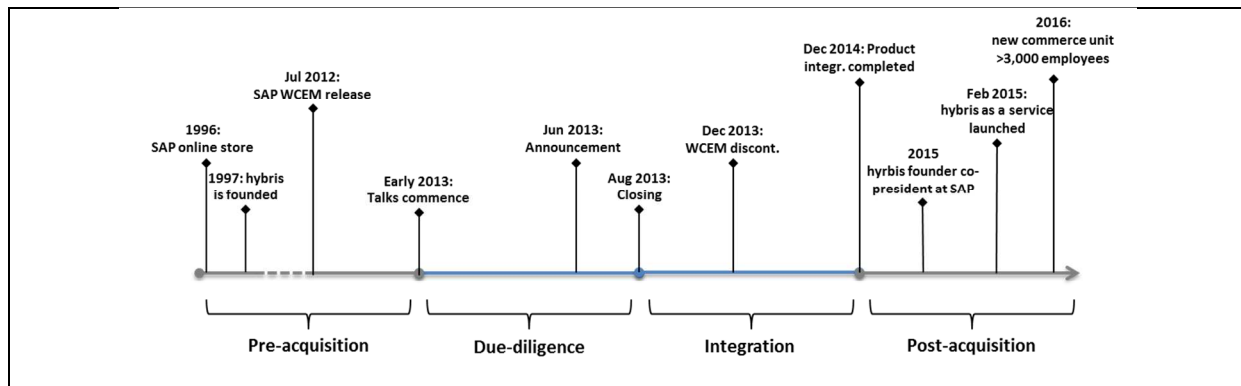
## **The Product Council Approach to Integration of hybris**

hybris was a German/Swiss provider of omni-channel business-to-business and business-to-consumer e-commerce solutions. Founded in 1997, the company had grown rapidly and had become a key player in the emerging market for omni-channel commerce software. Before the acquisition, hybris had 800 employees and 500 corporate customers. Its customers included B2B firms, such as GE, Thomson Reuters, and 3M, as well as consumer-facing companies, such as Toys'R'Us, P&G, and Levi's. The European home market and North America constituted around 85% of hybris' business, whereas the remaining 15% were mostly located in Asia. In Gartner's 'magic quadrant' for marketing resource management, hybris had consistently been listed in the top category of 'leaders'. The company's main competitors were IBM and Oracle on a wider scale, but it also had specific competitors in different niches, such as Demandware in the fashion industry.

The market for commerce solutions was particularly relevant for SAP for two key reasons. First, SAP's own solution in the area, called SAP Web Channel Experience Management (WCEM) platform, was falling behind the offerings of SAP's long-time competitors that were investing heavily in their own e-commerce suites (e.g., Oracle's acquisition of ATG for \$1bn). Second, in the broader area of customer relationship management (CRM) solutions, salesforce.com took the position of a market leader, which was clearly in conflict with SAP's self-image of being the number one provider of enterprise software. As a response, SAP aimed at positioning itself as the state-of-the-art provider of commerce solutions, discrediting traditional CRM as offered by salesforce.com and others as the “old world”. The acquisition of hybris was announced in June 2013 and integration was completed in June 2015 (see Figure 1 for a timeline).

For SAP, one of the key selling points toward its customers is the vision of the fully integrated company. In fact, well-integrated enterprise software has always been the cornerstone of SAP's success and SAP's customers expect a high level of product integration. For example, a software enabling the supply chain should be integrated with the sales and ordering software. Therefore, all software modules offered by SAP to clients need to be interoperable and together present a software suite, rather than being stand-alone modules. If this is the case, clients can coordinate and orchestrate across business functions.

In the hybris acquisition, it was of particular value to have the e-commerce solutions offered by hybris integrated with the existing SAP software suite. The product managers of SAP's various products recognized this potential. For modules of supply chain management, sales, ordering, product, etc., the value of the software module would be greater to the buyer of the module if it was pre-integrated with the hybris omni-channel solution. Many of hybris' customers had already ensured that this integration was in place in their local implementations. In these cases, integration of the hybris software and the SAP suite had been implemented by integration consultants in the customization of the hybris software. For hybris clients not using SAP, similar integration was typically in place between the hybris software and the enterprise software solution the client was using, because an omni-channel system without integration with functions such as supply chain management, production, and finance would be of little use. Providing the default option of quick and seamless integration with the SAP suite was expected to be a very strong sales argument in convincing hybris customers to choose SAP as the general ERP provider, and for SAP customers to choose the hybris alternative to support their omni-channel sales.



**Figure 1. Timeline of SAP's acquisition of Hybris**

Consequently, the demand for product integration was very high. In particular, product managers within SAP were keen to see their modules being integrated with the Hybris software. Initially, Hybris took the position that the current setup with local integration in the software customization was working well. After some discussions, fueled by requests for such integration by some of Hybris key customers, the value of integration became evident also to Hybris. However, all parties involved had a major concern: the many requests for deep integration with SAP products may completely overwhelm Hybris developers. Being flooded by integration work, the innovation and future development of Hybris would come to a halt. Because SAP had acquired Hybris specifically for its innovative capacity, this situation had to be avoided.

To do so, SAP established Hybris structurally as a separate business unit within the SAP group. This meant that the level of and approach to integration had to be negotiated independently in areas where synergistic benefits could be found. In this negotiation, SAP and Hybris followed three general principles. First, all decisions related to product integration were made with a view toward the shared goals of SAP and Hybris. Second, both SAP and Hybris were willing and eager to learn from each other. Third, SAP and Hybris were aiming to maximize the value for their clients when deciding on which products to integrate.

To implement these principles, SAP and Hybris formed the Product Council with the task to oversee the product integration. The activities, structures, and resources of the Product Council were based on the three overarching integration principles of shared goals, mutual learning, and value focus (see Figure 2). Specifically, the Product Council was formed in order to balance the need for value-creating integration with the need to keep Hybris innovative. The Product Council was mandated with decision rights in this area, and to make sure that the council would be able to take those decisions and see them implemented without unnecessary delays, the council included key executives from both companies, including SAP's head of application development, head of retail applications, head of cloud for customer engagement, and from the Hybris side the CEO, CTO, and head of product development. Institutionalizing the selection criteria for council members in subsequent acquisitions, the guidelines became that council members are needed from both companies and should have decision power within their respective organizations. It is even more important that the council members have the will and/or are incentivized to make the integration successful. In addition they should show a good ability to resolve conflicts.

In addition to the permanent members, the Product Council also invited other experts to its meetings on an occasional basis. Most notably, the head of SAP HANA® development (SAP's innovative in-memory platform) was participating in some of the Product Council's meetings. This was because one of the key goals of product integration was to ensure that SAP's and Hybris' future platform strategies would be aligned. The goal was to build Hybris as a service on the innovative SAP HANA platform to ensure that Hybris would benefit from the functionalities offered by SAP HANA and to facilitate cross-selling.

Product integration took place on three levels: data models, applications, and deployment (see Figure 2). At the data models level, the fundamental data definitions have to match. That is, how one system defines a customer, product, etc. must match what the corresponding items mean in the other systems.

In the applications integration, specific functions in one system are paired and connected with functions in the other systems. Product integration done by software vendors is expected to enable a far better

functional integration compared to what would be possible through customizing the software at the client site.

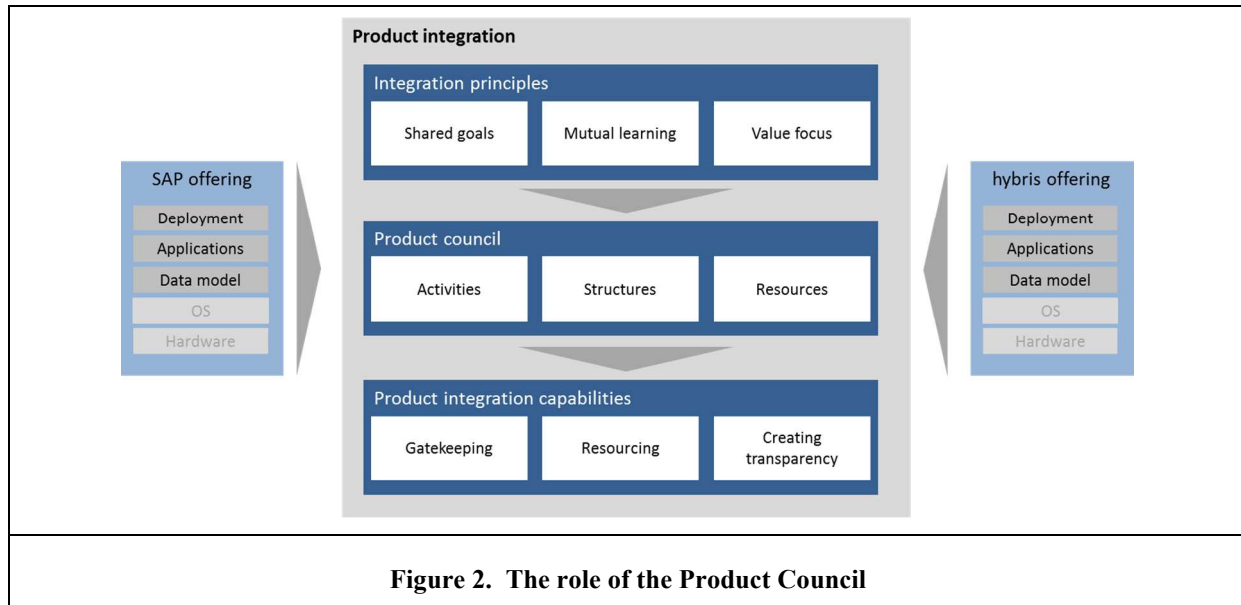


Figure 2. The role of the Product Council

The reason for this is that external firms such as consulting organizations, which are often tasked with customizing software, have limited visibility into the code beyond publicly available application programming interfaces (APIs) and rarely have information about the trajectory in which the solutions are developing in the future. Applications integration also included specific capacities of language and regional support that could be cross-deployed to be able to market a software in additional industries, geographical regions, or to new types of customers. In the hybris case, such possibilities included using SAP language and regional adaptation functions to reach new markets for hybris.

In the deployment integration, the compatibility of different versions of SAP's and hybris' solutions had to be ensured and the deployment models, i.e., on-premises versus on-demand, as well as deployment procedures had to be aligned.

Three capabilities of the Product Council helped to balance the integration. The first was the *gatekeeper* capability. All integration requests were funneled through the Product Council. At no point would any product manager at SAP or hybris be allowed to independently make formal or informal requests for adaptations in the other product to enable integration. In practice, this meant that the Product Council sent out a request for integration to all product managers at SAP to solicit integration needs. In addition, the Product Council approached some of hybris' key customers to understand their integration needs. Then, based on these streams of input, the Product Council determined a first product integration ambition that targeted the most valuable product integration needs. On top of the list were SAP's functions related to SAP's 360 Customer initiative that builds on the SAP HANA in-memory database and includes the SAP® Jam™ social-networking platform, the SAP Audience Discovery and Targeting application that enables customer segmentation and the solution for social media management<sup>1</sup>. Thus, early integration activities focused on SAP's CRM module and its retail industry solutions. In addition to integrating functions of SAP's and hybris' solutions, some SAP offerings, including SAP's web channel experience management solution, were entirely replaced with hybris products.

The focus on CRM and retail also meant that integrating other functions was put on hold or even completely rejected. Importantly, the rationale was not that other integrations would not have been useful to some customers. Instead, given the limited amount of integration capacity, if wanting hybris to stay innovative, there were simply no possibilities to do all integrations. Here, the seniority of the Product

<sup>1</sup> <http://scn.sap.com/community/business-trends/blog/2012/11/14/sap-360-customer-is>

Council members was critical to make sure that these decisions were accepted and that work could proceed with high velocity.

In its gatekeeping-role, the Product Council needed to meet frequently to make sure that the process did not come to a stall. Initially, it was expected that the council would meet according to a fixed schedule. With this pre-defined schedule some request were not processed rapidly enough and created frustration. Over time, SAP learnt that meeting frequency needed to match the workload at different stages and that meeting scheduling had to be dynamic. This was enforced in later acquisitions. However, this way of working created the additional challenges of convincing the top managers of the council to keep their calendars open and flexible to accommodate meetings with relatively short notice.

The second capability of the Product Council was *resourcing*. This effectively meant that the Product Council decided who (which teams and which individuals) should carry out the product integration and how the work should be organized. Here, the Product Council employed a tactic to increase the integration capacity of hybris. Instead of having hybris developers respond to integration request and to adapt the hybris products, which would be the standard approach, hybris developers trained SAP developers in the hybris products so that the SAP developers could do the main thrust of the integration work. Although the training and support consumed some of the hybris developers' time, the arrangement still meant that the hybris developers could, to a large extent, continue to develop the hybris products. In total, around 50 SAP developers were assigned to the integration tasks. As a positive side-effect of this arrangement, when the initial integration frenzy was over, a number of SAP developers were well acquainted with the hybris products, the development environment, and the development methodology of hybris. When hybris continued to expand, many of these developers were moved into the hybris development organization where they would be operational immediately.

The third capability of the Product Council was *creating transparency*. Even though extensive research had been made before the acquisition about the possible synergies of combining SAP and hybris—both in terms of saving costs and creating additional value—there were still a great deal of uncertainties about exactly how these synergies should be realized. In addition, when merging two large organizations, it is very likely that some synergistic opportunities may have been overlooked in the initial investigation. To work out how to realize planned and serendipitous synergies, deep knowledge of both organizations is critical. The hybris managers knew hybris, and the SAP managers knew SAP. The Product Council became a platform for this deep knowledge at one single place. Having representatives from both organizations gave transparency into the respective organization. In addition to learning about the resources at the other organization, which helped to leverage potential for synergy, SAP and hybris also converged in their product trajectories and their main foci of innovation.

The three capabilities of gatekeeping, resourcing, and providing transparency helped SAP to address the delicate balancing act of integration between target and acquirer. Through gatekeeping, the Product Council helped ensure that hybris was able to remain autonomous enough to innovate. In particular, hybris developers could keep their focus on further developing hybris' omni-channel commerce solutions. Also, hybris' sales network and partner ecosystem were kept functional. Resourcing enabled cross-firm exploitation because hybris could draw on the vast pool of resources of SAP, e.g., for localizing its software or for addressing markets where hybris was not present. By creating transparency, the Product Council helped hybris to achieve innovation because hybris managers learned about the resources at SAP that hybris could draw on to further develop its solutions. One prominent example was the hybris-as-a-service solution which was possible by combining hybris' solutions and capabilities with SAP's HANA platform.

## Preliminary Lessons Learned

Companies such as Cisco, Apple, Google, and Amazon all complete a two-digit number of acquisitions every year directed at innovative technologies and related capabilities. Today, we see the same numbers of technology acquisitions in industries that traditionally are not seen as digital, such as finance and automotive. Between 2012 and 2015, acquisitions in Auto Tech grew by 40%. Specifically, acquisitions related to embedded software and hardware grew between 2014 and 2015 with 244% in volume. The main purpose of these new classes of acquisitions are not to build economies of scale or scope, but to access innovative technologies and related capabilities – just as SAP did in the hybris acquisition.



For most large companies, the act of acquisition is nothing new. But acquiring innovation is different from acquiring for scale, scope, or market access. On one hand, technology acquisitions pose additional demands for speed of integration and bundling of offerings. If a car manufacturer acquires a company with an innovative solution for self-parking cars, the software and hardware are only effective if deeply embedded into the car's existing technologies. If this process is slow, the solution will not be 'innovative' by the time it is effective. The problem is, however, that the very same activities that are essential to materialize the systemic benefits of digital technologies may significantly damage the innovative capacities of the acquired company. If left autonomous, the acquired business is more likely to stay innovative. This tension between the need for integration and autonomy is commonly referred to the integration paradox.

Reflecting on the usefulness of the product council approach, SAP concluded that they would apply a similar model for integration governance given three conditions:

- There is high demand from many parts of the organization for integration.
- It is unclear who would build the integration
- The target has to be protected from requests from the rest of the buyer organization

Despite the in-progress status of this research, we can already now draw some important lessons for how to succeed with balancing the integration paradox in technology acquisitions. For software companies, these lessons relate directly to the specific tensions of integrating software offerings to achieve the benefits from software suites and how these activities may disrupt further innovation in the target's software offering. However, the experience of SAP's use of the Product Council approach also provides broader, more general lessons about how to manage the integration paradox that are relevant for the many firms that are experiencing the transformative effects of digitization. With digitization of previously non-digital industries, the need to acquire technological innovation as basis for competition becomes an important strategic tool beyond what is known as the traditional fast moving hi-tech industries.

Based on SAP's Product Council approach, we provide three preliminary lessons learned. Fundamentally, the three lessons relate to ensuring critical speed while not compromising accuracy in the integration.

*Lesson 1: Compose the Product Council to provide a holistic understanding of both acquirer and target.*

Moving ahead with the integration trajectory, without an extended phase for exposing the qualities of the involved firms requires thinking of decision-making as a collective effort. Typically, individuals from the acquirer have the most in-depth knowledge about the acquirer. Similarly, individuals from the target can be expected to best understand the value of capabilities and assets in the target. It has been suggested that a learning phase is required for the parties to understand each others' strengths and weaknesses, but this is typically not possible in technology acquisition. Instead, SAP's Product Council approach exposes the opportunity to compose a team that jointly provides knowledge across the relevant areas so that in the time of decision making, in terms of where to start integration, the critical knowledge is present in the room. This implies that the council should evaluate and take decisions as a team based on the guiding principles and not as set of contestant individuals.

*Lesson 2: Allocate authority to allow for consistency and speed in decision-making*

Integration of technology acquisitions is a process of balancing trade-offs, which means that for many decisions there will be individuals that would have desired other outcomes. On one hand, acquirer and target staff may fear the effort of integrated products quickly. On the other hand, and potentially even more critical, product managers may lobby for quickly integrating their products even though integrating other products first may be more reasonable. To ensure that the Product Council is able to make decisions despite resistance, it is crucial to give it decision-making authority and to ensure that it is not bypassed.

SAP achieved this by selecting very high-profile individuals from the acquirer and the target as members of the Product Council. It was also made sure that the Product Council would meet frequently to react quickly on integration requests and objections. As illustrated through SAP's acquisition of hybris, the transition of power is not without obstacles. For SAP it meant that some product managers who could see immediate benefits from integrating their products with hybris' omni-commerce solutions saw their wishes rejected by hybris. On the other hand, hybris initially struggled to cope with the responsibilities that came with decision power, rejecting any change to the business that had proven successful in the past. Eventually, however, SAP managed to turn these tensions into constructive arguments highlighting

the impact of certain decisions. Distributing power and evening the playfield was critical to foster a decision-making process that accounted for the trade-offs of integration work.

*Lesson 3: Embrace dynamic planning and agility*

It might seem obvious that a plan for the integration is needed before integration work can commence. Commonly in acquisitions, the first time after the acquisition has been announced is spent on scenario-building and road-mapping of affected capabilities. It has also been suggested that for acquisitions where there might be a need for preserving some of the target's capabilities, the two firms involved should spend the first time after the acquisition to 'get to know each other's strengths and weaknesses'. When acquiring innovation, the problem is that by the time true value becomes known, the innovative technologies may not be so novel any more.

However, the SAP case reveals that a comprehensive plan is not needed to start integration work. Instead, the Product Council team created the integration plan dynamically to start the actual integration work from day one. Commencing planning only with a decision on where to start, subsequent integration plans emerged as options were evaluated. Through the increased agility, the Product Council could avoid a lengthy planning process that would delay synergistic effects to materialize.

## **Appendix: Research Methodology**

Experienced acquirers typically are better able to mitigate the disruptive consequences of the loss of autonomy entailed by integration, but surprisingly little is still known about how these skillful acquirers manage to do so. This was the starting point of our study of SAP: we wanted to understand the mechanisms employed by a skillful digital technology acquirer to balance the integration paradox.

We started our interactions with SAP to find out how the firm balanced the integration paradox in its acquisitions related to cloud technologies and the servicization of enterprise software. The research was set up as a collaborative research project (Henningsson et al. 2010) with a team consisting of researchers from two universities and representatives from SAP, including the senior director of acquisitions. The motivation of SAP was to learn and expand its acquisition capability that was steadily growing in importance for the company. Initial discussions with SAP were broad, addressing the types of acquisitions the company was pursuing, typical challenges, existing practices, and how practices had evolved over time. In our discussions, we soon zoomed in on the practices that had been established to determine integration levels and integration methods at a granular level that would enable integration without destroying innovative capacities. An emergent understanding was that much of these balancing practices were captured in the establishment of the "Product Council", an institutionalized mechanism for integration governance.

With a focus on integration governance, we then investigated three specific acquisitions. One that, according to SAP, had been over-integrated, a second that had been under-integrated, and a third where the SAP representatives judged that an appropriate balance had been achieved. We particularly focused on the third acquisition, hybris, where balance had been achieved. To collect data on the hybris acquisition, we conducted in-depth interviews with key informants that had been in charge of and contributed to the integration project. Interview subjects included the Co-Chief of Staff to the Chief Executive Officer, the overall responsible for the integration of the acquired companies, the product integration lead, the leads for different integration work streams and employees that had been involved in realizing integration. We supplemented the interview material with studies of documentation from the acquisitions, including project plans, meeting notes, emails, internal presentations, and externally communicated information. Throughout the study, the research team held regular meetings to discuss the progress and the emergent understanding of the practices that had enabled balancing integration and autonomy.

## References

- Antero, M.C., Hedman, J., and Henningsson, S. 2013. "Evolution of Business Models," *Ecis 2013 Proceedings*.
- Balasubramanian, N., and Lee, J. 2008. "Firm Age and Innovation," *Industrial and Corporate Change* (17:5), pp. 1019-1047.
- Böhm, M., Henningsson, S., Leimeister, J.M., Yetton, P., and Krcmar, H. 2011. "A Dual View on It Challenges in Corporate Acquisitions and Divestments," in: *International Conference on Information Systems*. Shanghai, China.
- Brown, S.L., and Eisenhardt, K.M. 1997. "The Art of Continuous Change: Linking Complexity Theory and Time-Paced Evolution in Relentlessly Shifting Organizations," *Administrative science quarterly*, pp. 1-34.
- Capron, L. 1999. "The Long-Term Performance of Horizontal Acquisitions," *Strategic Management Journal* (20:11), pp. 987-1018.
- Capron, L., and Mitchell, W. 1998. "Bilateral Resource Redeployment and Capabilities Improvement Following Horizontal Acquisitions," *Industrial and Corporate Change* (7:3), pp. 453-484.
- Chatterjee, S., Lubatkin, M.H., Schweiger, D.M., and Weber, Y. 1992. "Cultural Differences and Shareholder Value in Related Mergers: Linking Equity and Human Capital," *Strategic Management Journal* (13:5), pp. 319-334.
- Chaudhuri, S., and Tabrizi, B. 1998. "Capturing the Real Value in High-Tech Acquisitions," *Harvard business review* (77:5), pp. 123-130, 185.
- Cyert, R.M., and March, J.G. 1963. "A Behavioral Theory of the Firm." Englewood Cliffs, NJ: Prentice-Hall.
- D'Aveni, R.A. 1999. "Strategic Supremacy through Disruption and Dominance," *Sloan management review* (40), pp. 127-136.
- Dierickx, I., and Cool, K. 1989. "Asset Stock Accumulation and Sustainability of Competitive Advantage," *Management science* (35:12), pp. 1504-1511.
- Doz, Y.L. 1987. "Technology Partnerships between Larger and Smaller Firms: Some Critical Issues," *International Studies of Management & Organization* (17:4), pp. 31-57.
- Graebner, M.E. 2004. "Momentum and Serendipity: How Acquired Leaders Create Value in the Integration of Technology Firms," *Strategic Management Journal* (25:8-9), pp. 751-777.
- Hagedoorn, J., and Duysters, G. 2002. "External Sources of Innovative Capabilities: The Preferences for Strategic Alliances or Mergers and Acquisitions," *Journal of Management Studies* (39:2), pp. 167-188.
- Henningsson, S. 2007. "The Relation between Is Integration and M&a as a Tool for Corporate Strategy," *40th Hawaii International Conference on System Science* Waikoloa, Hawaii, US.
- Henningsson, S., Rukanova, B., and Hrastinski, S. 2010. "Resource Dependency in Socio-Technical Information Systems Design Research," *Communication of the AIS* (27:4).
- Huber, G.P. 1991. "Organizational Learning: The Contributing Processes and the Literatures," *Organization science* (2:1), pp. 88-115.
- Kale, P., Dyer, J.H., and Singh, H. 2002. "Alliance Capability, Stock Market Response, and Long Term Alliance Success: The Role of the Alliance Function," *Strategic Management Journal* (23:8), pp. 747-767.
- Kapoor, R., and Lim, K. 2007. "The Impact of Acquisitions on the Productivity of Inventors at Semiconductor Firms: A Synthesis of Knowledge-Based and Incentive-Based Perspectives," *Academy of Management Journal* (50:5), pp. 1133-1155.
- Kogut, B., and Zander, U. 1992. "Knowledge of the Firm, Combinative Capabilities, and the Replication of Technology," *Organization Science* (3:3), pp. 383-397.
- Larsson, R., and Finkelstein, S. 1999. "Integrating Strategic, Organizational, and Human Resource Perspectives on Mergers and Acquisitions: A Case Survey of Synergy Realization," *Organization science* (10:1), pp. 1-26.
- Lee, C.H., Venkatraman, N., Tanriverdi, H., and Iyer, B. 2010. "Complementarity-Based Hypercompetition in the Software Industry: Theory and Empirical Test, 1990-2002," *Strategic Management Journal* (31:13), pp. 1431-1456.
- Leonard-Barton, D. 1995. "Wellspring of Knowledge," *Harvard Business School Press, Boston, MA*.
- McGrath, R.G. 2013. *The End of Competitive Advantage: How to Keep Your Strategy Moving as Fast as Your Business*. Harvard Business Review Press.

- Puranam, P. 2001. "Grafting Innovation: The Acquisition of Entrepreneurial Firms by Established Firms,").
- Puranam, P., Singh, H., and Zollo, M. 2006. "Organizing for Innovation: Managing the Coordination-Autonomy Dilemma in Technology Acquisitions," *The Academy of Management Journal ARCHIVE* (49:2), pp. 263-280.
- Puranam, P., and Srikanth, K. 2007. "What They Know Vs. What They Do: How Acquirers Leverage Technology Acquisitions," *Strategic Management Journal* (28:8), pp. 805-825.
- Ranft, A., and Lord, M. 2002. "Acquiring New Technologies and Capabilities: A Grounded Model of Acquisition Implementation," *Organization Science* (13:4), pp. 420-441.
- Schmalensee, R. 2000. "Antitrust Issues in Schumpeterian Industries," *The American Economic Review* (90:2), pp. 192-196.
- Shapiro, C., and Varian, H.R. 1999. *Information Rules: A Strategic Guide to the Network Economy*. Boston: Harvard Business Press.
- Steensma, H.K., and Corley, K.G. 2000. "On the Performance of Technology-Sourcing Partnerships: The Interaction between Partner Interdependence and Technology Attributes," *Academy of Management Journal* (43:6), pp. 1045-1067.
- Toppenberg, G., and Henningsson, S. 2014. "Taking Stock and Looking Forward: A Scientometric Analysis of Is/It Integration Challenges in Mergers and Acquisitions " in: *European Conference on Information Systems (ECIS)*. Tel Aviv, Israel.
- Toppenberg, G., Henningsson, S., and Shanks, G. 2015. "How Cisco Systems Used Enterprise Architecture Capability to Sustain Acquisition-Based Growth," *MIS Quarterly Executive* (14:4), pp. 151-168.
- Toppenberg, G.N., and Henningsson, S. 2013. "An Introspection for the Field of Is Integration Challenges in M&A," in: *19th Americas Conference on Information Systems*. Chicago, Illinois, .
- Very, P., Lubatkin, M., Calori, R., and Veiga, J. 1997. "Relative Standing and the Performance of Recently Acquired European Firms," *Strategic management journal* (18:8), pp. 593-614.
- Williamson, O.E. 1975. *Markets and Hierarchies, Analysis and Antitrust Implications: A Study on the Economics of Internal Organization*. New York: Free Press.
- Zenger, T.R., and Lazzarini, S.G. 2004. "Compensating for Innovation: Do Small Firms Offer High-Powered Incentives That Lure Talent and Motivate Effort?," *Managerial and Decision Economics* (25:6-7), pp. 329-345.