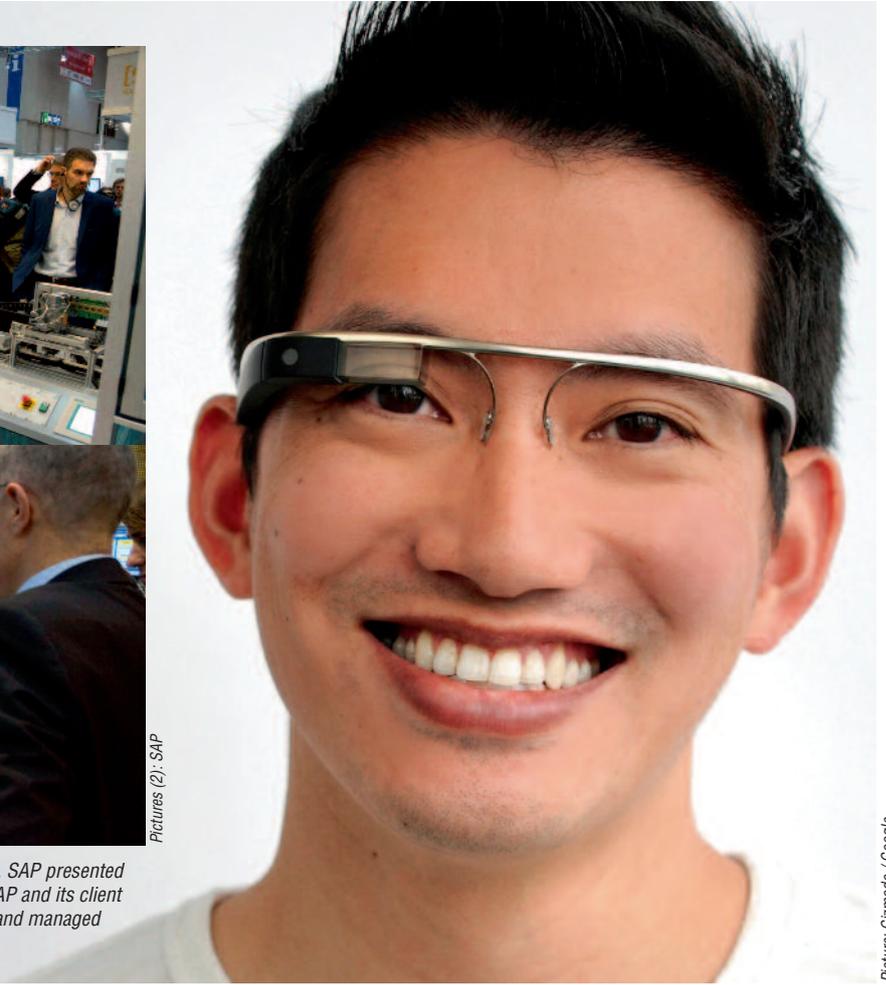


SUSTAINABLE PARTNERSHIP



At last Hanover Fair, together with customers and partners, SAP presented an “Open Integrated Factory”. For the central showcase, SAP and its client Festo set up a 8.6-m-long fabrication line, fully controlled and managed with SAP technology

Pictures (2): SAP



Picture: Gizmodo / Google

in disruptive times

Competitive advances in the upcoming decade driven by Internet-minded markets will be based on a new process excellence. To bring this advantage into successful operation, we recommend an even stronger relationship than in the past between growth-oriented companies and IT vendors. Here we spotlight the example of SAP and its clients.

Mobile Internet, Internet of Things (IoT), and Cloud technology are three of those disruptive technologies that market analysts and other influencers are constantly talking about. These innovations are more openers for new business opportunities rather than just stand-alone technologies because they will transform life, business, and the global economy in the upcoming years.

As the early 20th century economist Joseph Schumpeter recognized, the most significant advances in economies are often accompanied by a process of “creative destruction”, which shifts profit pools, rearranges industry structures, and replaces incumbent businesses. This will come true once again when the aforementioned technologies unfold their whole power in concerted actions. 3D printing and recent developments in robotics are already revealing this today.



The facts fit this picture: In the United States, mobile devices are used for an estimated 30 percent of Web browsing and 40 percent of social media; by 2015, wireless Web use is expected to exceed wired use. “Ubiquitous connectivity and an explosive proliferation of

apps are enabling users to go about their daily routines with new ways of knowing, perceiving, and even interacting with the physical world” – this is what it said in a recent fascinating report from the McKinsey Global Institute (1).

With Cloud technology, any computer application or service can be delivered over a network or the Internet, with minimal or no local software or processing power required. In order to do so, IT resources (such as CPU power and storage) are made available on an as-needed basis – when extra capacity is necessary. It is seamlessly added, without any requirement for up-front investment in new hardware or programming (and dedicated IT project management). The Cloud is enabling the explosive growth of Internet-based services, from search to streaming media to offline storage of personal data, as well as the background processing capabilities that enable mobile Internet devices to do context-related tasks e.g. on the construction site.

In Germany, against the background of a highly connected manufacturing industry, they are talking about a “Fourth Industrial Revolution” (Industry 4.0), referring to machines, industrial equipment, work pieces and system components that are capable of exchanging data in real-time. Experts believe that this will significantly boost efficiency, safety and resource sustainability in production and logistics.

On the CAD/PLM front we can expect remarkable momentum to drive the manufacturing industry’s businesses caused by the increasing spread of HTML5-based WebGL in browsing applications and higher bandwidths made available, enabling the offer of extended 3D-CAD-based services. WebGL provides the ability of client-based CAD rendering without any need to download engineering content on mobile devices (comparable with video streaming). This will lead the still controversial debate on IP protection in the context of Cloud services in the direction of a safer harbour.

These new opportunities call for the next generation of seamlessly integrated R & D, manufacturing, and service processes to shorten innovation cycles, speed the response to changing market demand, improve plant operation, and realize stellar after-market services. The consequence is an accelerated (PLM) journey. At the end of the day, new processes can only be successfully implemented if a trusted partner accompanies you.

Clear commitment to support new business approaches

SAP based in Walldorf, Germany, sees itself as such a partner, prepared to help shape its clients’ phase of business transition for the next industrial revolution. Can we trust SAP? Well indeed, there are a lot of arguments that speak in favour of the vendor, for example, its broad spectrum of offerings that already

“Yes, we trust.”

Here a selection of comments made by SAP clients, expressing their commitment to investing further in SAP solutions.

“Our engineers found SAP PLM very intuitive. We also noticed an immediate, significant improvement in response times”

Bernhard Luy, IT Manager for Global PLM Systems with BorgWarner Turbo Systems, on the replacement of its legacy product data management system with SAP PLM to supercharge collaboration between its sites worldwide.

“The SAP software helped us make better use of our resources and balance the workload.... We’ve also lowered costs and accelerated processes, improved data, strengthened risk management, and enhanced visibility”

Paritosh Basu, Group Controller with Essar Group, on experiences with the SAP Easy Document Management user interface to manage 30 000 financial documents generated monthly.

“Our task was to integrate processes across functions while making the SAP software functionality accessible to business users in an attractive and intuitive interface.”

Manuela Wallmeier, PLM Technologies and Systems Manager with Hella Hueck & Co. on the customization of SAP PLM to maintain high customer satisfaction.

“In our cosmetics division alone, we’ve produced almost 3 000 dossiers since going live. We can now create four times as many product dossiers in the same period of time.”

Christiane Werth, Business Project Lead with Henkel, on the benefits of the implementation of collaboration folders, integrated with SAP PLM, to enable comprehensive, transparent document sharing.

“By offering a single application that supports unified market management, R & D, manufacturing, and customer service, SAP has helped TRC run better.”

Song Yubin, CIO of CNR Tangshan Railway Vehicle, on experiences of the unified source data across departments and integrated R & D, manufacturing, maintenance, and customer service with SAP PLM.

“SAP software supports our long-term vision. It provides the functionality we need and enables a higher degree of integration and greater depth of information to provide the visibility we want.”

Thoba Majoka, General Manager, Strategy and Marketing of Transnet Engineering, on significantly improved R & D management, efficiency, and quality while reducing costs with the help of SAP Portfolio and Project Management in line with its adoption of Lean Six Sigma principles for continuous business improvement.

“We have more than doubled the rate of new products introduced into the market. But we had to do even better – and once we deployed the SAP PLM applications, we did.”

TG Dhandapani, Group CIO of TVS Motor Company on accelerating new product development in a highly competitive market.

allow the tight integration of resource management (ERP and project execution), R & D (engineering to order and new product development), manufacturing, supply chain and market and performance analysis (including portfolio management) today.

However, the most convincing arguments are provided by SAP's clients. A selection of customer voices is compiled in an eBook (2), e.g. from well-known firms like Borg Warner, Hella, Henkel, Hilti, SCA Hygiene, or SMS Siemag, just to name a few (see text box).

In April this year, SAP gave a presentation envisaging what the future may bring. At Hanover Fair, together with customers and partners, SAP welcomed visitors in an "Open Integrated Factory", a real and complete production line. For the central showcase, SAP and its client Festo set up a 8.6-m-long fabrication line, fully controlled and managed with SAP technology — from ERP down to the programmable logic controller (PLC). The second "Industry 4.0" scenario was a showcase for remote service management, featuring an industrial pump manufactured by Harting.

Festo showcase: With the help of SAP technology, the Festo fabrication line is managed in the Cloud and controls itself. The production line is a combination of individual workstations that communicate with each other and with SAP enterprise software in the Cloud. Fabrication is managed centrally with SAP enterprise software, which makes the whole process flexible, adaptive and easy to configure. The presented scenario helps companies to serve individual customer needs, allowing them to easily configure their products and their production lines. Technically speaking, SAP ERP, SAP MII and SAP Manufacturing Execution (ME) applications running in the Cloud are connected with a local connectivity instance that communicates with PLCs and sensors at the production line.

With this approach, a single production line is able to produce different products in varying lot sizes, even in small quantities, as well as customized individual pieces (batch of one). Virtual systems and Cloud-based management of production data open up new possibilities for fabrication, logistics and service, thus allowing companies to drive innovation – not only of their products, but of their processes, too.

Harting/ifm showcase: SAP presented another real-life Industry 4.0 scenario in Lower Saxony's capital, together with Harting, manufacturer of electrical and electronic connectors, and ifm electronic, a leading provider for sensors. The three co-innovators showcased an intelligent service scenario for an industrial pump, powered by SAP technology. With the help of the predictive ana-

lytics functionality, technical issues, maintenance and repair procedures of industrial equipment can be anticipated, giving the service team the possibility to trigger repair or schedule maintenance, in order to minimize downtime.

Conclusion

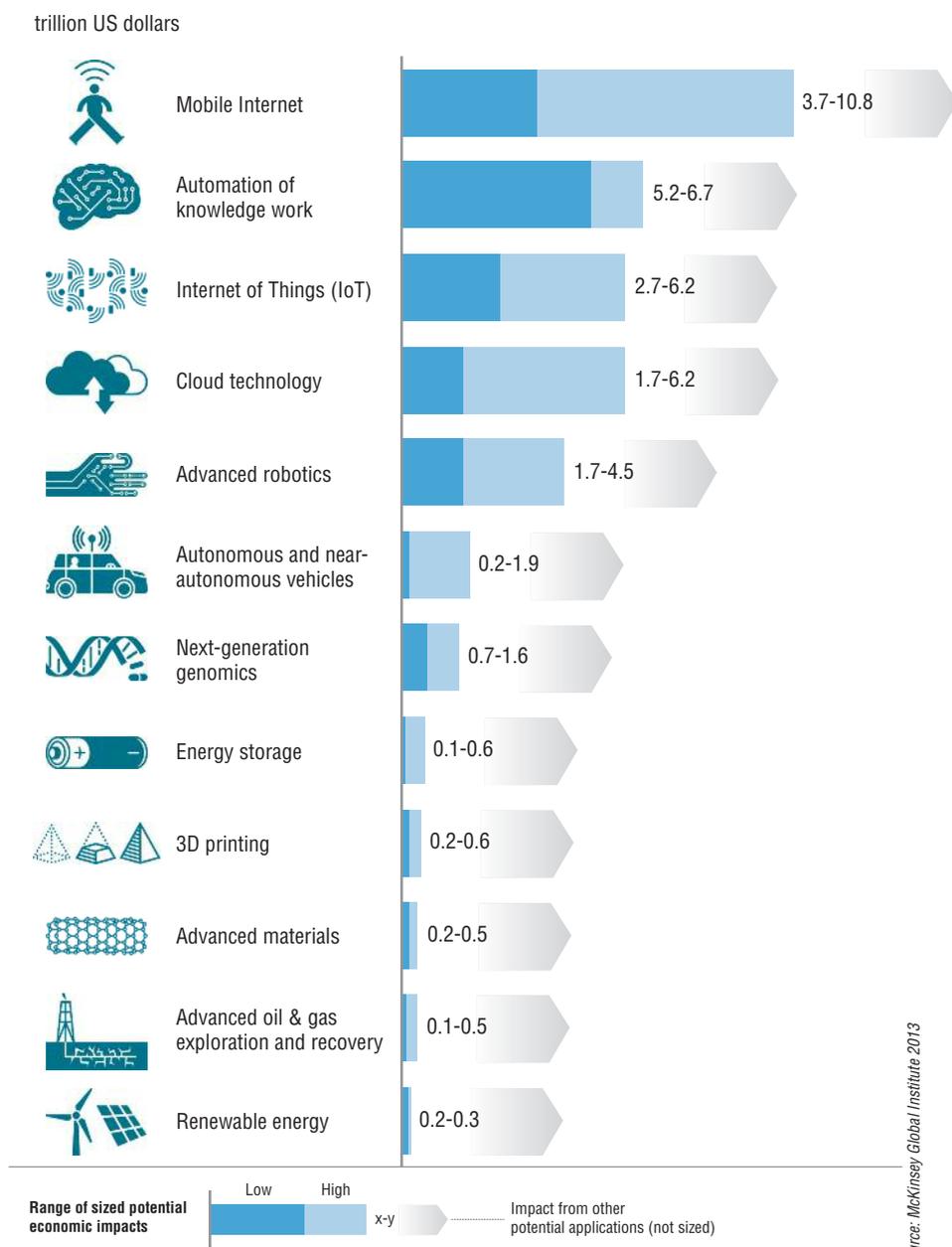
Technological change is happening literally at the speed of light. Such new business scenarios require a digital product description that accompanies the product from the first idea through the creation of the physical product to the end of its lifecycle. Success is

when the well-prepared strikes lucky. You'll probably need a little luck for the troubled times ahead, but you'll certainly need a reliable implementation partner like SAP. (bv)

INFOCORNER

(1) Manyika, J., et al., "Disruptive technologies: Advances that will transform life, business, and the global economy", McKinsey Global Institute, Seoul, San Francisco, 5/2013, www.mckinsey.com/mgi

(2) global.sap.com/community/ebook/2013_11_27458/enUS/index.html#/page/1
www.sap.com



McKinsey Global Institute focused on estimating the potential (rather than realized) value in 2025 by assuming that addressable barriers to technology adoption and value creation can be overcome and that reasonable, necessary investments can be made. The estimates represent annual value, including consumer surplus, that could be realized in 2025 across sized applications

Source: McKinsey Global Institute 2013