

# Interview with Martin Petry on “Big Data”

Martin Petry became Hilti’s CIO in 2005. He is responsible for 400 IT professionals based in Schaan (Liechtenstein), Tulsa (Oklahoma) and Kuala Lumpur (Malaysia). Since 2009 he is also in charge of Hilti’s Business Excellence initiatives. Martin Petry joined Hilti in 1993 and has held various international leadership roles. Martin Petry launched and continues to lead Hilti’s global SAP implementation cum business transformation project (standard global data structures and business processes supported by a single global SAP system with ERP, BI, CRM and SCM now being used by 18,000 Hilti employees in more than 50 countries). Martin Petry earned his PhD in applied mathematics from Georg-August University in Göttingen, Germany.

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**BISE:** Mr. Petry, from a CIO perspective – why is Big Data (not) just another buzzword?

**Petry:** Of course, Big Data is first and foremost a buzzword. The availability of large data sets is already given in our today’s business world. However, the introduction of the term Big Data indicates that there is more to come, much more: sensor generated data, for example. And the term Big Data includes the (expected) ability to analyze this huge amount of

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data – an area in which we are still rather at the beginning. With new technologies – such as in-memory technology – this opportunity will dramatically grow and allow us to make full use of large data sets – which again will drive the collection of even more data.

**BISE:** How does Hilti define Big Data?

**Petry:** Big Data is – in our terms – defined as the vision of creating new business opportunities that are based on the collection and analysis of large data sets. In the current world we are already accumulating a lot of data, but we are not using these data to their full potential.

This is also caused by the nature of data – a high proportion of unstructured data – that we can currently only with great (manual) efforts see in a context of new business opportunities that would allow us to look even beyond current products and services.

**BISE:** Big Data in the eyes of a CIO of a globally leading corporation serving the global construction industry sounds unfamiliar. Why is Big Data a topic for the Hilti Corporation?

**Petry:** Hilti is a premium brand and an innovation-driven company applying a direct sales model. Our innovations are focused on customer needs: Our 200’000 customer contacts every day are therefore our most important resource for innovation. Every customer contact – a question, a comment, or in the best case a product or service order – generates data. As Hilti has the competitive advantage of 200’000 daily customer contacts, the analysis of these data and gaining new insights into how Hilti can serve its customers in an even better way, are main drivers why Hilti is looking into the topic of Big Data.

**BISE:** Hilti is one of the first companies using SAP HANA databases in productive environments – why did Hilti choose such a first mover approach and what benefits do you expect?

**Petry:** Hilti’s IT department is – like Hilti overall – an innovation-driven organization. In-memory technology, such as e.g. SAP HANA, for us is a way of exploiting the potential of our data. HANA does not per se deliver value by speeding up generating reports. The real value of in-memory technology is the analysis and simulation of large data sets and – based

on this – optimization and transformation of business processes and solution offerings.

**BISE:** From your experiences as a CIO, what are the biggest opportunities and risks of Big Data approaches?

**Petry:** In the past we have developed many clever solutions to cope with data in an efficient way bearing in mind limited computational resources. In the future we won't need to spend so much time circumventing technical limitations, but at the same time we might lose our sensitivity for relevant and well administered data sets. We will also need to develop very strong analytical tools and teams with corresponding skill sets.

**BISE:** What role does data quality play for Hilti's Big Data initiatives and what is critical to guarantee high data quality?

**Petry:** Usage of data in an integrated system and process environment always requires a high level of data quality. Awareness for data quality throughout the organization is needed, as the effort to maintain a high level of data quality might well stretch across the entire organization. In the context of Big Data a careful estimation of effort required to ensure a high level of data quality (versus the expected benefit of the overall initiative) is required.

**BISE:** What is Hilti's major business model behind Big Data and where do you stand compared to your competitors?

**Petry:** Big Data enables us as a global company to address various market and customer needs in an innovative way. Standardization and simplification of our system and application landscape in combination with new technologies, such as, e.g., in-memory technology help us to assume a leading position in our industry.

**BISE:** What is essential to make Big Data a success from a technological perspective and from a business perspective?

**Petry:** Big Data is successful from both a technological and a business perspective once it enables companies to retrieve real business value. Certainly, Big Data as a concept is – from a technological point

of view – very interesting. But only dealing with technologically interesting domains does not guarantee that our business becomes more productive and/or that new business opportunities emerge.

**BISE:** What role does the business IT play in the context of Big Data and is Big Data changing the role and importance of IT in companies?

**Petry:** New tasks such as data mining require an in-depth knowledge of IT tools, statistical education as well a good sense for business opportunities. IT will in the future increasingly concentrate on its role as integrator of technology and business and thus not only support business, but also lead business to exploit new fields, making IT a true part of the business.

**BISE:** Is Hilti's IT prepared for Big Data?

**Petry:** In-memory technology, such as HANA, is only a first but very important step towards Big Data. We strongly believe that the concept of Big Data will put us in a position of being closer to our customers and also to become aware of new business opportunities we have not thought of before. However, there is also a high degree of change management involved which has to be mastered so that Big Data can exploit its full potential. With our track record of successful change management we feel well prepared for this.

**BISE:** What role can business and information systems engineering (BISE) play as a research community to support the industry in Big Data?

**Petry:** The big unknown factor today is how the concept of Big Data will change existing business models, e.g., in the areas of solution offerings, marketing and customer care. Technically speaking, it needs to be understood how strong analytical tools could be used to determine correlations between data in a more thorough way than it is done today. At the same time we must bear in mind that more data in general also means gaining more complexity, which makes it eventually more difficult to analyze data sets

in a way that real, new business benefits result.

**BISE:** What role can BISE play in education of students to be fit for Big Data? What do students have to know and what hard and soft skills are relevant?

**Petry:** The next generation of IT colleagues will face the challenge of being on the one side generalists who understand IT in general. However, this will have to be paired – specifically in the context of Big Data – with a deep knowledge of statistical analytics. This also changes the picture in terms of what educational background future IT colleagues may need to have. In future, it may no longer be so important to have an in-depth knowledge in a certain specific area within IT as the respective knowledge wears out fast. What is rather needed is to have IT employees aboard who are able and willing to learn new concepts and adapt fast accordingly.

**BISE:** How can Big Data support decision making for the CIO and/or facilitate the delegation of part of decision making process to other employees?

**Petry:** In general, Big Data can help using reporting tools in a smarter way than before. Instead of looking only backwards (in terms of historical data), Big Data will enable us to simulate different future options. This will on the one hand lead – positively speaking – to more options for decision-making, as Big Data will simply offer more options as a basis for decision-making. However, dealing with more options also means that the decision-making process will potentially lead to more complexity. The more potentially positive or negative side effects I may know upfront, the more I have to consider them in the decision-making process. Hence, Big Data will not only revolutionize the support in decision-making, it will also make it more complex in a certain sense. Therefore, one has to know how to use Big Data in a smart way to avoid drowning in data.