# Keeping pace, one step at a time

The reality of next year will be different than this one. Those successful in the past will not necessarily succeed in the future.

This rather daunting description of the present reality comes from Ralf Schlaepfer, Partner and Country Lead for Manufacturing with Deloitte in Zurich. "The life-span for companies on the Standard & Poor's 500 index list is getting shorter all the time, and many at the top of the Fortune 500 list weren't even there a decade ago," he points out.

In fact, since 2000, 54% of Fortune 500 companies are gone, and it is the digital revolution that is changing or challenging business models.

"Sensors have gotten so small and so affordable that they are appearing everywhere." Schlaepfer recalls a conversation with a Space Shuttle astronaut flying the first missions in the 1980s: "He said they had three big sensors that could indicate up down, right and left. They were each about one square metre, and cost one million USD apiece. And they had to have three, because they were so unreliable."

### The companies

Now, Schlaepfer says, Moore's law of exponential growth applies to all technologies: 3D printing, biotech, drones, robotics and more. And this is affecting virtually all enterprises in the value chain, from manufacturing and shipping, to shopping. Or, as Deloitte says in their Tech Trends 2016 report: *"Every* company is now a technology company."

What, then, is Deloitte's role in this changed world? "We help our clients understand where challenges are coming from. They need to reinvent themselves. If they were successful because of superior engineering and products, now they have to address the Internet of Things and exponential technologies to see where it will change their business models. Our job is to help clients understand the digital world, and which of these exponentials will change their businesses."

He believes companies need to

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Ralf Schlaepfer

integrate themselves with their suppliers, and their clients. In an example of asset sharing, he cites Local Motors, a manufacturer of bespoke automobiles in the US. "They are crowd sourcing design, with 600,000 contributors and 3D printing, and producing one-of a kind vehicles." This 'audience participation' also gives them automatic buy in from their customers, making them less dependent on dealers, Schlaepfer says.

# The people

Of particular relevance for the marine sector as it seeks to plot a new course into the future, what does it mean for the people in more traditional companies when their employer makes the transition into the digital age? "It starts with how to train the staff," Schlaepfer says. He refers to a study done in Switzerland, where 4 per cent of companies felt they had the staff they needed, 16 per cent felt they had the wrong people, and 80 per cent believed they needed to re-train staff.

"In addition to training, there are other ways to transform a company," he adds. "Change can also come from the edge." In Deloitte, they still retain their core businesses, like accounting, corporate tax, and advisory services. "But we have to move beyond product innovation and change our business model. Our new initiative, Deloitte Digital, is being built from the fringe, and that requires a different kind of staff, and a new way of thinking."

The new breed does not come to work in white shirts and suits, he says, but rather T-shirts and sneakers. And they don't sit quietly in cubicles or offices. "They work in crowds, discussing and investigating. They look different, they act different, they think different. We still leverage our top ranking in IT and consulting, but these new people are helping us develop fresh angles and new approaches." The question virtually poses itself: How does a company like Deloitte, with a strongly conservative image, recruit unorthodox millennials? "We have to convince new recruits that they have a chance to do something new in Deloitte. We are in the forefront of trying to identify change and build new business models, and they can see in our reports that we are truly committed to understanding the changes."

## The risk

"Cyber security is the biggest challenge," Schlaepfer states. "Most of our clients are not even close to having the right IT infrastructure to be secure," though he cautions against thinking that using more money means getting more security.

"I was talking to a real estate developer who was renting out interim space. He was offering free business apps for these flexible solutions. There is always a risk, but the answer lies in making smart choices. You have to balance between the risks and rewards, and you have to be willing to share in order to take advantage of new developments."

Schlaepfer tells of an artificial intelligence (AI) company that turned their technology loose on Twitter. After 36 hours, their tweets were displaying offensive language. The machine had simply learned from other 'unfiltered' tweets and was mimicking them. "That just shows that we have to be aware of what it means to put information out there. It opens up a lot of opportunities, but it can also go in the wrong direction."

The same goes for protecting your physical assets. Today it is possible to monitor tire pressure on a fleet of trucks or cars through pressure sensors in the rim. But, as Schlaepfer points out, "From that sensor you can hack through to the car's motherboard, and from there to the engine." The same might be true of sensors on board a ship. His point is that wherever you might think it's a good idea to produce and access data, you have to check impacts on the entire operation, whether it be a car, a factory, a ship, or even an entire fleet.

### The learning

Meanwhile, innovation is outpacing institutions across the board. Google and Tesla have driverless cars on the roads while legislation lags behind, and, one of Schlaepfer's main concerns for the digital age, current educational models are proving unable to keep pace with developments.

"Long-term study plans are outdated before they are even implemented," he observes. "We need flexible curricula in universities. I am advising institutions where they have no fixed courses. The programs are changing as we speak."

Al is increasingly taking over standard tasks, allowing humans to focus on more creative, innovative work. As a result, education can focus less on standards more on the potential to create new business models. Schlaepfer also believes it is time once again for the generalist, rather than the specialist.

"We can't be focused on one single target. We have to have broader goals, and we can't be afraid to try and fail. In Silicon Valley they have a culture of 'failing forward', or learning from failure in order to succeed. In more conservative cultures, failure is fatal, and we have to put that behind us and learn from our mistakes."

Cultures, though, have a way of being surprisingly resilient. "In many places in the world, they are dealing with the same issues as 3000 years ago." Resistance to change is often built in, and that applies especially to companies in tradition-bound industries like shipping. "They must learn to adapt, learn to get rid of the 'stickiness' of things that they have always done."

### And back to the people

"The most innovative start-up communities are always trying to devise new ways for their people to interact with each other. There is often no clear leader, just a group of individuals collaborating on new ideas." Keeping pace with change, in other words, is all about what we can share with each other.

Even industrial behemoth GE has set up FirstBuild, a micro factory where development of appliances is reduced to four or five weeks, instead of three to four years. "In order to achieve such quantum leaps, you have to bring people together who are

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interested in other peoples' ideas. This is the kind of incentive that creative people are looking for."

Ralf Schlaepfer has a Japanese colleague who lamented the lack of passion at his workplace. He told Ralf: 'People leave their soul at the door. They live their real lives at home.'

"These are the cultures that need to be challenged. Challenging brings positive energy, and even the most established cultures are learning this." In a more enlightened example from Japan, Schlaepfer knows of companies who assign the challenger role to employees in turn, just to make sure that at least one dissenting opinion is voiced in the highly conformist Japanese business environment.

"Always encourage creativity, and invite people to make mistakes. This is important in attracting the right people. You want them to feel energised. The biggest problem we see in established companies today is lack of motivation."

Cautioning against trying to extrapolate from the past to predict future, Schlaepfer encourages businesses to experiment continuously, zooming in and out, but staying focused on the big picture. "The time of three- or fiveyear strategic plans is over. It simply makes no sense anymore. Instead, create a ten-year vision, and work toward that vision one year at a time." Rounding off with a story of inspiration, Ralf tells of a friend who was having a conversation with Elon Musk, a true visionary known for tirelessly pursuing his goals. They were talking about Musk's vision for hypersonic-speed transport of people in vacuum tubes, the Hyperloop concept. He questioned whether the extreme acceleration and deceleration wouldn't be harmful to humans, which it most certainly could be. Musk's undaunted reply: "It's an issue."

You won't solve everything at once. The best just keep trying – and learning – one step at a time.

