Europe, Middle East, Africa and Russia

Introduction

With the theme of ‘Redefining what’s possible: Orchestrating future productivity,’ this year’s summit explored topics on how new technologies can bring together information and behaviors to take the CIO’s contribution even higher.

Day one looked at the challenges we face in transforming our businesses for growth and the role that the CIO and technology play in future success. Opening with a keynote from Cisco’s President and COO Gary Moore, we followed with insight into how CEOs regard the CIO’s contribution to the business. Cisco’s own global CIO Rebecca Jacoby then gave her perspective. The day ended with an opportunity to network or to consider the impact that diversity and a predicted shortage of talent might have on future success.

Day two delved deeper into the theme of redefining what’s possible with an observation of how the economic outlook will impact competitiveness and how to orchestrate collaboration to enable growth. Breakout sessions by fellow CIOs offered an opportunity to get closer to three topics: Cybersecurity, Mobile Technologies and Innovation in smaller, more intimate sessions. Concluding the summit, Benjamin Zander, conductor of the Boston Philharmonic Orchestra, offered us extraordinary insight into ourselves.
As CIOs we all have to redefine what we’re doing. Technology waves used to break every 18 to 24 months. Today, it’s more like every 18 to 24 days. Achieving IT goals when budgets are under so much pressure is undoubtedly a challenge. Yet we know 99.8% of what could be connected still is not. Connecting the unconnected is a huge untapped opportunity for all of us.

In the next three to five years, around three-quarters of organisations say they’ll be considering, testing or using virtual desktop infrastructure (VDI). Half of CIOs expect to use private or hybrid clouds. Video will account for two-thirds of world mobile data traffic by 2015 and 86% of all IP traffic by 2016. The Internet is doubling in size every five years. By 2015 there will be 25 billion connected devices worldwide, rising to 50 billion devices by 2020.

This is what we call the Internet of Everything. It will bring together people, processes, data and things to make networked connections more relevant and valuable, turning information into actions and creating unprecedented opportunities.

Already the Internet of Everything is helping to bring about connected energy. For example, BC Hydro in Vancouver has deployed 1,700 pole-top routers and 1.8 million smart meters. Similarly, across China and other parts of Asia there are 20 million networked smart meters in operation. We’re also seeing the beginnings of smart and connected communities. Saudi Arabia’s a great example. A project called Iconic Cities is delivering connected citizen services and has spawned hundreds of other initiatives across education, energy, traffic, entertainment, safety and healthcare.

But we’re only just starting to tap into these potential benefits. For instance, connected healthcare – including electronic patient records, virtualised care and online diagnostics – could prevent 700,000 people a year from dying due to incorrect diagnoses. Another example is transportation, where there’s a huge opportunity to use sensors across the rail network and to put RFID chips in trucks. By 2015 there will be nine million connected vehicles, rising to 50 million by 2020. And the Internet of Everything will mean profound changes for other sectors and services.

To make Cisco the world’s top IT company we’ve had to fundamentally transform our business. We’ve refocused on core activities: routing and switching, collaboration architecture and data centre virtualisation. Previously Cisco had as many as 13 layers of management. We cut 21% of senior management posts, saving $1.5 billion, adopted a new operational model and scaled back our portfolio. We’ve spent $5.8 billion on R&D and $2.2 billion on collaboration. Today we have 25,000 engineers worldwide. Our core strategy is still to build, buy and partner with other companies. And 11 out of the last 12 Cisco acquisitions were security, software or cloud-related.

Everything we do is geared around ensuring Cisco’s innovation engine remains alive and well. As CIOs, you deliver technologies to respond to business demand, systems to increase the speed of innovation, tools for sustainable productivity, and architectures that allow you to grow and transform the business. With your continued help, we believe Cisco is redefining the Internet.
The Role of Technology in Business Transformation - A CEO’s Perspective

**PS:** How much is technology discussed in the boardroom?

**IC:** Retail has a schizophrenic attitude to technology. One side finds it irritating; the other can see the front-end opportunities. These tend to be on three levels: utility, productivity, multi-channel.

**RMS:** Every other meeting is about ICT. For us, data management is critical. We’re spending more than retailers. ICT is becoming more complex, but we crave simpler solutions.

**SH:** Our executive team spends an enormous amount of time discussing ICT. It’s a constant conversation. The number one issue is security, closely followed by online business models.

**PS:** Is the CIO bringing innovation, or is it coming from the business?

**SH:** It’s the CIO, the business and a third party, our customers, who demand new technology and services. We question what the value is, how many users and do they really need it?

**IC:** CEOs are comparing rates of external and internal change. We have a legacy IT architecture and issues of scale. For example, customers with scanning apps are outgunning us.

**RMS:** Innovation is customer-driven and we want real time information. IT has to explain the business case and long-term value. With technology changing so fast, they find this difficult to do.

**PS:** Does regulation help or hinder innovation?

**SH:** Regulation is just a long-term contract. It’s not a constraint. Once you’ve signed the contract, the only question is how to execute efficiently and effectively?

**PS:** How do you balance offline and online?

**IC:** It’s consumer-led. The problem for retailers is that their business models are outdated. Take HMV. 73% of music is downloaded, but they had 25-year leases on stores that were too big and in the wrong places. The cost base is old world, the demand-shift required is new world.

**SH:** Mobile and online are going through the roof. We need to move from bricks to clicks.

**PS:** Does budget go to IT or to the business units?

**SH:** It’s co-owned. We’re always relearning and reinforcing that lesson. How do you give people the information they need? Only by spending more on IT.
Redefining what’s possible:
Orchestrating future productivity

Day One
For CIOs, by CIOs
Inclusion and Diversity in IT, Talent at the Edge
Cisco Executive Keynote
The CEO-CIO conversation

Day Two
Economy Keynote
Collaboration, Inside and Outside the Organisation
Collaboration technology at Deutsche Post DHL
Breakouts and Inspirational Keynote

RMS: It’s business-driven. We spent £35 million on upgrading our financial platform and canned the project a week ago. These systems are very expensive.

IC: People routinely overstate the future benefits of IT. The question for the CEO is, “I know we could do this but do we really need to?”

PS: How can CIOs help redefine your business and do a better job?

SH: The CIO has to be part of the top team and contribute to strategy. They need to get us into the eyes of the customer. That will make the business deliver.

IC: Most failures result from a disconnect between the business and IT. Discount three out of ten projects annually and fight for the things that will really change the company.

RMS: Make it simple. Put it on one piece of paper and explain the business benefits. We don’t care about the tool, only the difference it makes. Spend more time with operational teams.

Vote

Question: How often do you share your strategic vision with your CEO in order to gain their thoughts on how IT could contribute?
  a) All the time – 34%
  b) Sometimes – 57%
  c) Never – 9%

Question: Does your CEO believe that technology is key to winning against competitors?
  a) Yes – 71%
  b) No – 29%
Redefining what’s possible: Orchestrating future productivity

As technology evolves it offers ever-greater potential for business innovation. With each transition, CIOs must understand the emerging opportunities and pave the way for their organisations to take advantage. Whether those opportunities are about producing services more quickly or consistently, making more efficient use of equipment and resources, or developing collaboration and communication platforms that improve the way people interact, CIOs need to think about all the different aspects of IT and how they contribute to business growth. They must then prioritise and focus their attention on the areas they believe will deliver the greatest value for their organisations.

As a major technology company, Cisco has to sense the major strategic transitions organisations are likely to face before they occur. To do that effectively, we have to develop and implement pioneering innovation inside the company and ahead of time, so we can help our customers take advantage of these transitions as they happen. To that end we have a long-term technology roadmap that’s designed to add business value for customers consistently and incrementally. Our innovation strategy centres on five key technology transitions: infrastructure as a service, applications as a service, data as a service, mobility as an experience, and communications/collaboration as an experience.

In 2008, in the wake of the financial crisis, most organisations were looking at virtualisation as a way to better utilise their assets and save money. We understood the fundamental transition wasn’t virtualisation, but the cloud. More specifically, the inter-cloud where organisations could source services on demand from multiple, online providers. Internally, we laid the foundation for infrastructure as a service by developing our private cloud, pushing virtualisation technologies to the limit in order to automate delivery of IT services.

We’ve also taken major data areas to render as a service. The data can be changed in one place and immediately proliferated. But the transition to data as a service has more fundamental and wide-ranging implications. For instance, it enables organisations to better manage big data and contextual information.

Mobility as an experience or lifestyle, along with video, is the key trend that’s changing how people interact. Everybody has their own personal preference when it comes to devices, so giving people choice and developing appropriate standards and APIs is critical.

We’ve taken a similar approach to communications and collaboration as an experience. Today, we’re in a new world where people have unprecedented choice of communications services, including instant messaging, wikis and video. We realised that thinking about these as individual applications was not enough. People want to move seamlessly between different services, so putting them together on a single platform turns single communications tools into a rich platform for collaboration.

All these transitions have major implications for IT security, which needs to keep evolving. In this new world, security and IT architecture go hand-in-hand. You need an identity...
management programme that doesn’t just lock people out, but can also understand broader context, offering a secure path to what you’re trying to access. Our central security organisation helped set up a security prime in each major architectural area to advocate best practice.

From a CIO’s management perspective these five transitions - infrastructure as a service, applications as a service, data as a service, mobility as an experience, and communications/collaboration as an experience - will lead IT to increasingly become a service organisation (ITaaS). They are not the only transitions occurring, but they’re the ones we feel are going to create a fundamentally different model and experience for people. My advice to other CIOs would be don’t try to take advantage of every transition. Decide which are going to bring value to you. Structure how you measure that, so you can stop something if it’s not delivering what you anticipated. In our dashboards, for example, we decided we needed to manage risk. The first risk was resiliency. The second risk was vulnerability. But the third risk, and the one that should be more widely articulated, was the risk of not doing anything.
How do competitive leaders break through assumptions about work, employment and engagement to attract extraordinary talent and find the expertise they need?

PD: Services is a people business, so our talent strategy has to match our business strategy. Diversity isn’t just about women: it’s about generation Y and people outside IT. Just as we need to anticipate our future technology requirements, so we need also to anticipate the talent we require in the future. In business, in our organisations, in the countries we live in.

We’re facing a skills gap. Many IT workers are reaching retirement age and there are not enough young qualified workers to replace them. We’ve heard about consumerisation of IT, the accelerating pace of change, new skill requirements and globalisation of IT. Unfortunately, at exactly the same time as IT gets more complex, students in developed countries are moving away and making other career choices.

The figures are quite scary. Europe forecasts a 700,000 shortfall in IT by 2015. In five years, half our workforce will be generation Y with different needs. Since 2006, only Germany or Poland have held or grown the number of IT professionals, and 90% of jobs in all sectors will require technical skills by 2015. 60% of graduates are women, but only two in 20 are in the top mathematics class. How do we attract and retain the best talent and create a diverse workforce?

DB: In our IT division 78% of our workforce are male. Women in IT have tended to reach junior management and stopped. In other operational areas, it’s about 67% female, 33% male. We’re struggling to attract graduates: 1.2 million applicants for apprenticeships, 200,000 for graduate trainees. We’ve had a massive transformation and invested £4 billion in new infrastructure and applications. We talk to journalists about it, but do we do anything on social media? Not really. Do we pass the message down to a younger population? Not really. We need to do a lot more.

AB: Our board kicked off a great diversity project, not just to get more females into the company, more to align with our customers’ perspectives. Their businesses are expanding from Europe and the US into South America, Asia, Indonesia and China. We should also consider how to get innovation and creativity into the company. That’s by diversity, too. The third thing is the work-life balance. In central Europe it’s very important to provide childcare. We’re on the edge of enabling a lot of well-educated women to work; without this, it’s a competitive disadvantage. We try to give people a broad knowledge base, not only IT or supply chain, so they can change career. If you empower people, they’re more motivated.
RG: In financial services IT, there are so many transformations to make and this really motivates and attracts people. Only 50% of our workforce is based in France, the rest is global. Every two or three years we’re pushing our people to get experience in other countries so they can gain a multicultural perspective. We’re also building an attractive ecosystem based on Web 2.0 where people can embrace transparency, collaboration, open communication and user-generated content. This helps create a culture where people want to join and to stay. It provides opportunities for people to be part of the change.
The challenge for senior executives this year will be to manage diverse business models and technology simultaneously.

Stéphane Garelli, Professor, University of Lausanne and Institute for Management Development, World Competitiveness Center

Budget deficits in the OECD region are $2,700 billion; cumulative debt is $36,000 billion. These are just numbers. But it’s very important that companies do have cash. And enterprises do have money. At the end of Q3, cash reserves stood at $2,050 billion in the US and $2,480 billion in Europe. Cash has been accumulating because companies don’t know what to do with it and interest rates are so low.

GDP growth is going in all directions; the world economic weather map is not in sync any more. The debt mountain won’t disappear but I think we’ll deal with it. US Government debt is $16.4 trillion. One level down, California is almost bankrupt. One more and the cities have problems; so we must be careful of this cascading effect.

Foreign currency reserves in emerging economies are $6,400 billion, with $5,190 billion in sovereign wealth funds. Today the countries with money are China, Korea, Saudi, Russia, Taiwan, India and Brazil. Those seven have $5,736 billion, which is huge. A lot of those funds will go on infrastructure projects and asset purchases, recently in Latin America and Africa, now also in Europe.

A lot will go into creating national champions and new brands. Of the world’s ten largest construction companies, five are now Chinese. It’s changing very quickly. From 1950 to 2007, the US put 52 companies in the FT Global 500. Between 2002 and 2012, China put 22. There will be many new players and we’ll have to deal with it.

Consumer markets are very different. Developed countries are being driven by “I want it”, emerging countries by “I need it”. By 2050, North America will have grown by 100 million people, Latin America by 160 million, Europe by 19 million, Africa and Asia both by one billion.

We have two growth engines: the emerging middle class on over $10 a day, and the emerging less-poor class: hence the $35 tablet, the $2,500 car, micro-finance and mobile money. The size of Africa means that it should be on the radar of any business. The economy of tomorrow will be an urban economy. In 1800, 2% of the world’s population was in cities; in 2030 it will be 60%, with 40 mega regions like the Pearl River Delta.

Then there’s the challenge of re-industrialisation. Only one economy didn’t lose industrial capacity in the last 20 years: Germany. Compared to GE with industrial capitalization of $224 billion and 301,000 jobs, Apple’s is $492 billion with 61,000 jobs. New business models don’t need so many people.

The global value chain is becoming more complex and more vulnerable. It doesn’t mean offshoring is gone but onshoring is happening. Re-industrialisation will bring pressure on wages. With commodities, total energy demand will increase by 38% by 2030, mostly in emerging economies. The vast majority will be oil and gas. By 2015 the US will produce more gas than Russia, by 2020 more oil than Saudi Arabia. Electricity could cost nearly twice as much in Germany than in the US by 2020.

Sir Walter Scott said: “In business, success is caused more by mental attitude than mental capacities.” There is a moment where you just have to get up and do it. But you have to manage your image. Today, everybody is watching.
Redefining what’s possible: Orchestrating future productivity

How to orchestrate collaboration to enable growth

Robert Kuppens, CIO EMEAR, Cisco

Collaboration is about working together to get a better result. In the Internet of Everything, collaboration is extended to people, processes, information and things. The old equation is that the value of collaboration is the value of resources leveraged, divided by the time and effort to collaborate. How does this change with virtualisation?

How can we increase the speed at which our businesses are run? Reduce how long it takes to assemble a new project team around the world? With people who are more available, have the right expertise and mindset, delivering faster than the competition? How does collaboration change every part of the way we drive value? It’s changing the experience of interaction with employees, partners and customers.

Why doesn’t the information come to us instead of us trying to find it? How many of you have found a way of getting all the information using one logical knowledge base? What you need for a good collaborative environment is a fundamental architecture where you first have to look at your information and how you’re sharing it.

BYOD is the first step towards the Internet of Everything. Next will be IP cameras and sensors. We need automation to detect what’s joining our network, its functionality, security needs. Organisations are looking at a platform or architectural approach to collaboration, where all applications make use of collaboration and communication capabilities. A mash-up is based on other applications, like drop video interaction. This is the service mentality.

This approach includes service catalogues, but equally recognises one size doesn’t fit all. For example, TelePresence might not suit individual needs or budgets. So we’re looking to roll out Cisco Jabber internally across the company. The difficulty of a service video catalogue is that it will be best-effort video.

At Cisco we constantly measure how we’re doing. Our connected operations scheme in EMEAR is specifically about understanding what services IT, HR, finance and facilities management need to grow employee productivity and satisfaction.

We have a TelePresence dashboard that shows savings on travel, how many hours used, the number of TelePresence endpoints deployed (over 8,000), how much travel was avoided, how much emissions saved. We’ve already removed $1.3 billion of travel expense, but that’s not the only saving.

Our collaboration platform has been running for four years. Before that we had hundreds of web pages of information but no open platform to connect different capabilities. Using open source, we built WebEx Social. It’s Facebook for the enterprise. Added to this we have an online collaborative idea box, i-Zone and i-Prize, where we use the wisdom of the crowd to think about new ideas and interact with Cisco.

But, you still have to bring it all together. More and more Cisco’s meetings combine TelePresence, WebEx Social, instant messaging and video recording. That doesn’t mean to say you can go completely virtual. It’s still important to connect with people in person.

Collaboration rooms, with electronic white-boarding and live interaction, are a great way to combine physical and virtual collaboration. At the end of the day, everything will become an app, on any device, and it will become part of the service catalogue.

So, back to the original question. How much time do you spend on measuring ROI? You can strive for perfection and spend years developing your collaboration strategy. Our employees, partners and customers will get these capabilities, whether we want them to or not. As CIOs the challenge is to orchestrate all those capabilities in a consistent, architectural way.
We're a big company; that's why collaboration's important to us. We operate in 220 countries and territories with 470,000 employees in four operating divisions. A shrinking number of letters are being sent, but we're growing thanks to deliveries for online retailers like Amazon. We ship pallets and containers, by air or sea; manage supply chains, including inventory, resources and purchasing; and deliver just-in-time solutions to customers such as the NHS.

We have an IT board, made up of five CIOs, and a shared services organisation that handles payroll, accounts receivable, procurement, and so on. In my area, customer solutions innovation, we see more and more need to collaborate. We use tools externally and internally: SharePoint, WebEx, Link and Skype, micro-blogging, and video with 280 installations round the world, including six or even TelePresence rooms.

Our focus is on increasing the frequency and quality of interaction with customers, suppliers and employees. The biggest resource for our global managers isn't money, it's time. Having to spend hours on planes, suffering jetlag, time away from families is non-productive. We're also committed to a greener planet and plan to reduce our carbon footprint by 30% by 2020 from a 2012 baseline. Plus, overall, less cost.

Cisco was our technology partner at our 2012 Berlin Technology Conference, attended by 100 people. Cisco provided live streaming and TelePresence, effectively doubling the number of people able to participate. Customer feedback was very positive. They especially liked the fact that they didn't have to take two or three days out of their schedule and could attend the parts that were of most interest.

In the supply chain, one of the difficult things is explaining to customers what happens in our warehouse, especially with delicate medical or electronic products. Site visits aren't always part of the sales process. With Cisco we've developed a mobile TelePresence unit, which we use to provide a virtual tour. It can be steered remotely from the conference room with a joystick and customers can ask questions interactively of their warehouse guide.

The sales guys love this because there’s nothing like showing people what you can do. We had a few initial problems, for example, warehouse lighting is not ideal for high-definition video. When you get a few things in place, you gain excitement in the company. Our executive VP for customer service and innovation lives in Boston. He ran his panel using TelePresence, with people in Bonn, Singapore and Florida, and the user experience was flawless.
**Vote**

**Question:** Do you have an explicit collaboration strategy in your organisation?

- a) No – 28%
- b) Yes, but focus on our internal employees in general – 35%
- c) Yes, focus on supply chain and partners – 3%
- d) Yes, focus on new development (R&D) – 3%
- e) Yes, focus on customer collaboration – 8%
- f) Combination of b), c), d) and e) – 23%

**Question:** Do you measure the impact of connectiveness and (virtual) collaboration in your organisation and beyond (e.g. your ecosystem)?

- a) No – 72%
- b) For some functions and processes in our own organisation – 15%
- c) For most of the functions and processes in our own organisation – 8%
- d) For some functions and processes across our ecosystem – 5%
- e) For most functions and processes across our ecosystem – 0%

**Question:** Do you have a collaboration architecture and integrated approach to collaboration capabilities as part of your overall organisation’s architecture?

- a) No – 36%
- b) Yes, but both still early start – 38%
- c) Yes, but still many non-integrated collaboration capabilities – 26%
- d) Yes – 0%
Cybersecurity - is it a true inhibitor to progress or is it the start point of enablement?

AH: Andrew Hoog, Chief Investigative Officer and Co-founder, viaForensics

DL: Dirk Linnenbrügger, EVP and CIO, Allianz

SM: Steve Martino, VP Information Security, Cisco

The session opened with a short video highlighting the corporate impact of a cyber-attack.

AH: For those with malicious intent, mobile devices are the perfect espionage tool for intelligence-gathering. They’re remotely accessible and updatable, have multiple sensors, and are freely carried everywhere by targets without attracting attention.

A viaForensics demo showed how an employee’s mobile can be exploited. A programme hidden in a newsfeed is downloaded to report user location and contextual data, intercept and make calls, or access files on the memory card. It can be used as a back door for malware to enter the corporate network or for a hacker to use as a remote keyboard.

Encryption alone is no longer enough. Third-party apps can compromise BYOD security and turn the mobile into an offensive weapon able to circumvent traditional controls. The response must cover three areas: people, products and processes. That means ensuring best-practice education for employees, implementing effective mobile security tools (both open-source and commercial), and engaging in proactive forensics and mobile data collection.

DL: At Allianz we found that device proliferation and the growing sophistication of cybercrime are increasing risk levels. The World Economic Forum flagged information security as the root cause of the top three global risks in 2012. The widening gap between criminal ingenuity and the expansion of security capabilities highlights the need for investment.

Our approach is not to look at information security in isolation. It’s managed as a business risk and integrated into architecture and standards for all IT services, with better threat awareness and agile capabilities. It should be high on the CEO’s agenda, seen as a business enabler rather than a cost. Enterprises have to define their corporate information security agendas and seek out smart solutions, alliances and partners.

SM: Cisco’s security is pervasive and built on a dynamic policy. New security primes are responsible for each business area and next-generation policymakers set policy. We underpin our operational excellence by ensuring security is fully embedded into our IT operating manual.

Identity and access policies pinpoint who, what, where and when a user seeks access, using federated identity and adaptive authentication. Secure-path connections provide cloud-based validation, with device profiling and contextual access. Data security is rooted in source code, providing visibility and defining data assets that are critical to control.

As the new control algorithm, our policy combines information about the role and privileges of an employee, their device profile and posture, their location (VPN, trusted or untrusted networks), and the service request. This determines who gets what access, from where, and on what device. Security metrics align with the IT operating manual, with three-tier reporting enabling quarterly service reviews to identify the 10 best and worst security cases.
Mobility beyond the enterprise - what’s next?

RH: Rick Hutley, VP of Internet Business Solutions Group, Cisco

SP: Scott Petty, Director of Business Product Development, Vodafone

RH: We’re on the cusp of a fundamental shift towards the Internet of Everything. Mobility is much broader than humans and their mobile phones: it involves not just people, but also things, data and processes. For example, IBM is developing a system to track livestock throughout their lives, so people will be able to scan a barcode on a meat product and learn the animal’s history and pedigree. Then there’s Google Maps, which is a good example of both a mobile process and of the emergence of new business models.

SP: What’s happening is a great untethering. By 2015, about 75% of Internet connections will be mobile, and the way we use mobile devices is changing. The average length of a mobile voice conversation has halved as people increasingly use their devices for social networking and other apps. People buy a particular device because of the type of communication that it enables. When Vodafone launched 4G in Germany last year, network usage doubled.

The rules have changed. Vodafone’s customers decide how they want to communicate with us, and if they don’t like the systems we provide, they circumvent them. Vodafone had a web and PC-based service, but customers wanted to use their phones and apps. We’re entering a new era of super-mobility focused on apps rather than devices.

M2M presents a big challenge for IT in terms of deciding how it will be embedded in the network. What we think we know about mobility will change and if IT can’t provide solutions, people will find their own.

Machine-to-machine (M2M) communications will touch us all. For example, Vodafone Germany is supplying the M2M platform and data services for new BMW cars to improve safety, traffic avoidance and motoring efficiency. But it will also provide a platform for additional services. BMW told Vodafone to “think about the car as a smartphone on wheels.”
What’s next in the future of connected business?

GJ: Guido Jouret, CTO and VP, Emerging Technologies Group, Cisco

PC: Paul Chong, Group IT and Commercial Director, Standard Life

JT: Jeroen Tas, CIO, Philips

GJ: My group is an internal incubator. We create internal start-ups looking at new business opportunities. I believe strongly that existing lines of business can’t innovate enough to capture new markets. We throw 98% of new ideas away. For the ones we keep, we hire people to build the products and services then we bring these to market. If an idea succeeds, it graduates; if not, it’s eliminated. Accepting that things fail is part of innovation.

We keep our start-ups very lean. As with the venture capital community, we’re not initially aiming to build a perfect product, but rather the minimum viable product. The aim is to get to market quickly and have paying customers. Only then do we think about improving the product, not before.

PC: Standard Life is a life, pensions and investment company. We’ve been around 190 years and manage just over £206 billion, compared to £50 billion 10 years ago. We’re proud of our heritage, but being steeped in the past can sometimes bring problems.

Three years ago our new CEO said he wanted to turn us into the Amazon of life, pensions and investment. Digital and online experiences have been transformed in the last few years. We needed the ability to scale up and down on both the infrastructure and application development side. We needed to transform ourselves. There was a very strong silo mentality in parts of our organisation. Now we’re moving to a future where those silos cannot exist.

Our storage, networks, service desks, telephony, mainframes and distributed estate have all been completely upgraded. We’re moving our data centres to the cloud. We’re continually opening up access to our customers, with one million now dealing with us direct. We’re increasing speed to market, using technology to make collaboration faster. We’re connecting customers and partners, colleagues and management, colleagues and customers.

JT: At Philips our markets are changing rapidly. Healthcare is a prime example. It used to be about providing more and more sophisticated devices. The most lucrative opportunities now are in services. The biggest change will be in China and India, where large-scale connected healthcare will present exciting new opportunities.

We’re also using lighting as a way to create innovative healthcare products. We used to push innovations out to our different business groups. But that model isn’t appropriate in a connected world. First, we must understand the market. We can only optimise products if they’re built around customer needs, using agile processes and moving IT to the centre of the business.

We’re also becoming a collaborative company which shares data across the business. It’s imperative this change is embraced by the culture. For example, we recently set up a digital accelerator in the Netherlands with hubs in India and Shanghai, using IT to link it back to the value chain.
The new leader is one who is masterful in creating and holding distinctions. We can only see what we have a category for. So, in this sense, education is not so much the transfer of information as the opening of new categories. Try to join all nine dots in this diagram together with using three straight lines, without taking your pencil off the paper.

There’s only one way to do it: you have to use the white space outside the dots. This is the origin of the phrase ‘think outside the box’.

The question is, “What assumptions am I making that I don’t know I’m making?” Every organisation needs someone to see what assumptions are being made and is allowed to say so. A successful organisation is one that does not fear failure. There’s no problem that can’t be solved if we make a new framework.

My job as a conductor is to remind players why they went into music in the first place; to remind the orchestra of the rhythm of transformation. I’ve been a music teacher for 45 years and people are constantly measuring and comparing. If you look at someone playing the violin, there are two people, one playing and one a voice in the head saying: “You haven’t practiced enough” or “You missed that part.”

When I was teaching, I came home one day from class and said to my wife: “These students are so anxious about their grades that they cannot take a risk with themselves to become great artists.” My wife said, “Give them all an A Grade”. There were 53 students in the class, so I gave them all an A the next day, providing they wrote me a letter, dated the following September, saying: “Dear Mr Zander, I got an A in my course because…” It became a possibility for them to live into, just as we give our children names as possibilities to live into.

So much of our thinking is a downward spiral. Newspapers are full of it, so are TV programs. There are two worlds. One is the world of fixed reality. Resources are fixed; there is lots of competition, domination and hierarchy. Then there is possibility. Here there are no steps: we can only stand in possibility. Here you have a goal as part of a vision. If you make the goal, great! If you don’t - how fascinating! Fixed reality is full of ‘should, must, ought, need’; full of blame, fault and threat. Possibility is ‘How about? What if? What’s next?’ A leader can distinguish the downward spiral and take people over to possibility.
Remember: first, everything is invented; second, stand in possibility; and third, Rule Number Six — “Don’t take yourself so seriously!” The game of success and failure is like the back and the front of the hand; you can’t separate them. So when you wake up in the morning, remind yourself: “I am a contribution”. This is not about a person, it’s about a power… called possibility.

“Every organisation needs someone to see what assumptions are being made and is allowed to say so. A successful organisation is one that does not fear failure. There’s no problem that can’t be solved if we make a new framework.”

Benjamin Zander, Conductor, Boston Philharmonic Orchestra