

# *Seizing the innovation edge*

How TMT companies can  
harness breakthrough  
innovation to boost revenue

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# How TMT companies can harness breakthrough innovation to boost revenue

What does it take to be a successful innovator in Technology, Media, and Telecom? The key lies in anticipating and responding to future technology breakthroughs and customer needs, and in embracing new approaches to drive growth and transform these industries. If your current strategy isn't delivering breakthrough innovation and revenue growth, then it's time to change.

TMT companies don't hold a monopoly over innovation. PwC's recent global innovation study, *Breakthrough Innovation and Growth*, found that innovation is moving up the corporate agenda for all respondents, regardless of industry or geography.<sup>1</sup> The implication for TMT companies is clear: don't lose focus whilst other industries are gaining marketshare with advanced innovation practices. To maintain their resilience, TMT companies need to make a conscious effort to adopt more sophisticated innovation practices.

In this first of three papers exploring innovation within TMT, we focus on how innovation is accelerating growth for leading TMT companies. Our study of 374 C-suite executives from TMT companies across 20 countries

reveals that companies that adopt a coherent innovation strategy, by planning for a greater proportion of breakthrough and radical innovation

For companies willing to invest in the right innovation strategy, the potential prize is significant: the most innovative 20% of TMT companies

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*For companies willing to invest in the right innovation strategy, the potential prize is significant: the most*

*innovative 20% of TMT companies we interviewed have collectively benefited from an additional US \$45 billion in revenue over the last three years, compared with the least innovative companies. This is the equivalent of more than*

*US \$1 billion per company, or a 14% revenue uplift.*

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or a more diverse innovation portfolio, enjoy superior revenue growth and an enhanced competitive position.

'Developing an innovative product or service is not enough to secure and maintain a leadership position in today's market,' says Dan DiFilippo, Global TMT Leader. 'TMT companies need to think beyond technology enhancements and focus on breakthrough innovations that will shift the playing field in their favour.'

we interviewed have collectively benefited from an additional US \$45 billion<sup>2</sup> in revenue over the last three years, compared to the least innovative companies. This is the equivalent of more than US \$1 billion per company, or a 14% revenue uplift.

In our second and third papers, we will explore the lessons to be learned from the leading TMT innovators, and present case studies of companies that have successfully overcome obstacles to implement their innovation strategies.

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<sup>1</sup> PwC, *Breakthrough Innovation and Growth: Top innovators expect US \$250 billion five-year revenue boost (2013)*, <http://www.pwc.com/gx/en/innovationsurvey/index.jhtml>

<sup>2</sup> See appendix for full details on how this figure was calculated.

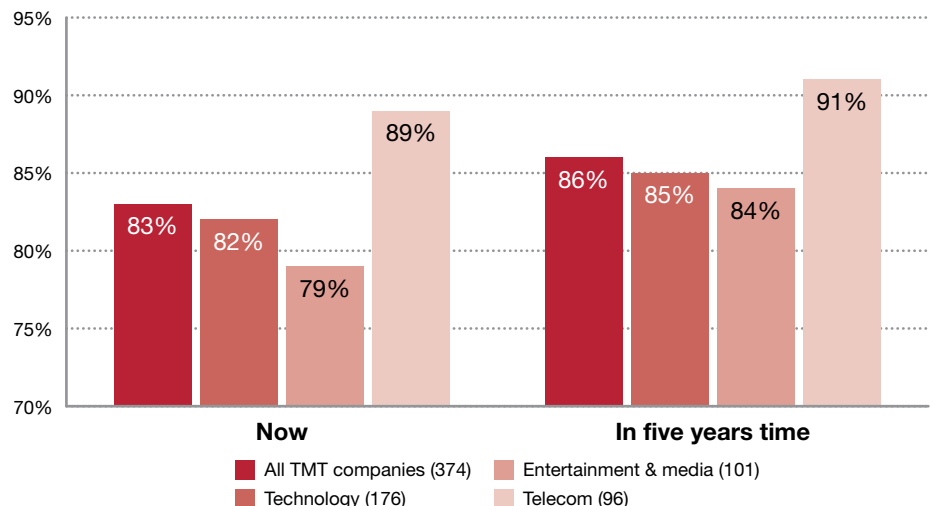
# Where is TMT today?

TMT companies are often perceived to be naturally innovative because they operate within rapidly changing industries, but this alone does not qualify them as innovation pioneers. 'It's easy for TMT companies to overplay the idea that they are a greater source of innovation compared with other industries,' says Aritomo Shinozaki, Principal in PwC's US Technology Product and Innovation practice. 'Being at the cutting edge of technology, where the pace of change is quick, does not automatically place a company at the cutting edge of innovation,' he says.

Eighty-three percent of the TMT executives we interviewed acknowledged that innovation is an important contributor to their company's success, see Figure 1. Nearly half (48%) describe innovation as a 'competitive necessity', a clear signal of innovation passion. When asked about the role of innovation in five years' time, its importance increases slightly to 86% and 52% respectively.

- **Incremental innovations** are changes to an existing product or service aimed at protecting market share and maintaining margins. Competitors usually respond quickly to incremental innovations. Our survey data suggests TMT portfolios typically comprise 40-55% incremental innovation.
- **Breakthrough innovations** make much more substantial changes to technologies and business models, creating greater competitive advantage than incremental innovations. Competitors have greater difficulty responding to breakthrough innovations. As a result, a company with a successful breakthrough innovation increases revenues and margins. Our survey data suggests TMT portfolios typically comprise 20-35% breakthrough innovation.
- **Radical innovations** create drastic changes to the competitive environment for a product or service, or create entirely new businesses. Radical innovations occur infrequently but can generate explosive growth in major new categories of products and services. Our survey data suggests TMT portfolios typically comprise 5-15% radical innovation.

**Figure 1: Respondents who agree that innovation is important to the success of their company**

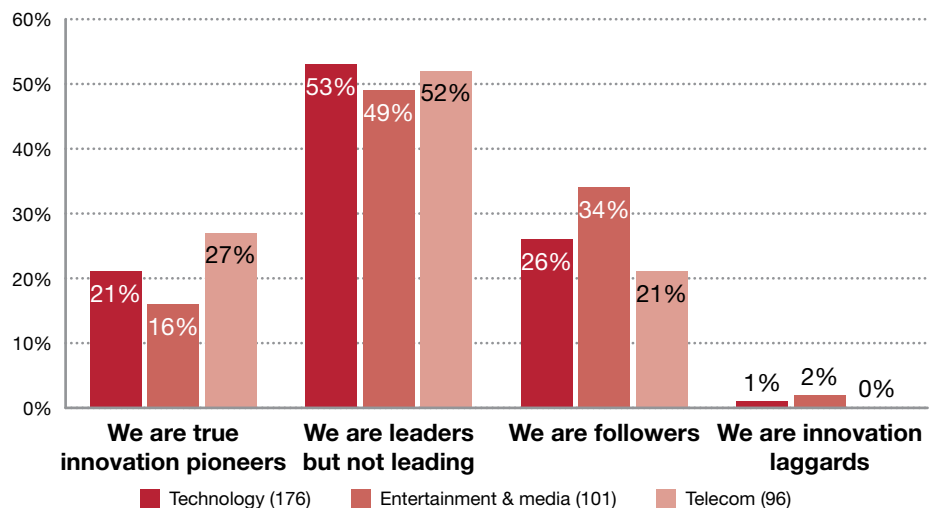


83% of TMT companies agree that innovation is important to the success of their company, a proportion on par with other industries.

To successfully reap the benefits of innovation it is not sufficient to merely recognise its importance: organisations need a mindset that prioritises innovation alongside operational excellence. Less than two-thirds of executives interviewed for this report say they have a well-defined innovation strategy, and when asked about their innovation appetite, approximately half of TMT executives identify their company as ‘leaders but not leading.’ Between one in four and one in six describe themselves as ‘innovation pioneers’ at the forefront of innovation, but more TMT executives describe their companies as ‘followers’ than as ‘pioneers,’ see Figure 2.

Behind the headline numbers, experiences differ by both sub-industry and geography. Of the TMT companies interviewed, those in emerging markets such as China, Brazil and India are more likely to agree that innovation is a ‘competitive necessity’ for their business both now and in the

**Figure 2: Which of the following best describes your appetite for innovation?**



More TMT senior executives describe their companies as ‘followers’ than ‘pioneers.’ Where do you stand?

And though the data suggest Telecom companies place greater importance on innovation, and have a greater appetite for innovation than Entertainment & Media companies, this may be because innovation is critical for the survival of Telecom companies. As discussed

its product portfolio very well,’ says Huw Thomas, PwC UK Entertainment & Media Partner. ‘However, in certain cases they are managing marginal decline and are hesitant to invest in new breakthrough models, whilst existing models are perceived to remain viable in the short term,’ he says.

The data also portrays an unconventional picture of the Technology industry, often perceived to be at the forefront of innovation. Although data averages show the industry as a whole on par with, rather than ahead of the TMT average, and the global average of all industries, this shrouds the fact that there is a great deal of divergence within the industry. ‘The most innovative industries often appear to be flat when looking at averages, since there is such a wide gap between the winners and the losers,’ says Raman Chitkara, PwC’s Global Technology Industry Leader. The top 20% of Technology industry innovators successfully pursue a greater share of breakthrough and radical innovations than their peers, and enjoy superior revenue growth as a result.

*‘The entertainment industry understands how to manage its product portfolio very well. However, in many cases they are managing marginal decline and are hesitant to invest in new breakthrough models, whilst existing models are perceived to remain viable in the medium term.’*

— Huw Thomas, PwC UK Entertainment & Media Partner

future compared with counterparts in Europe or North America. Whilst this might be a surprising data point, given that many TMT companies in emerging markets are currently growing thanks to sheer market penetration, rather than as a result of innovative practices, there will come a point when this trend will shift. An oversaturation of competitors in these markets will create a critical need for breakthrough innovation in order for the best players to survive.

in the global report *Cloud-enabled telco opportunities*, many Telecom companies are being challenged to innovate their business model to counter the impact of value chain consolidation.

Entertainment & Media companies, on the other hand, might be seen as more cautious in their innovation approaches. ‘The entertainment industry understands how to manage

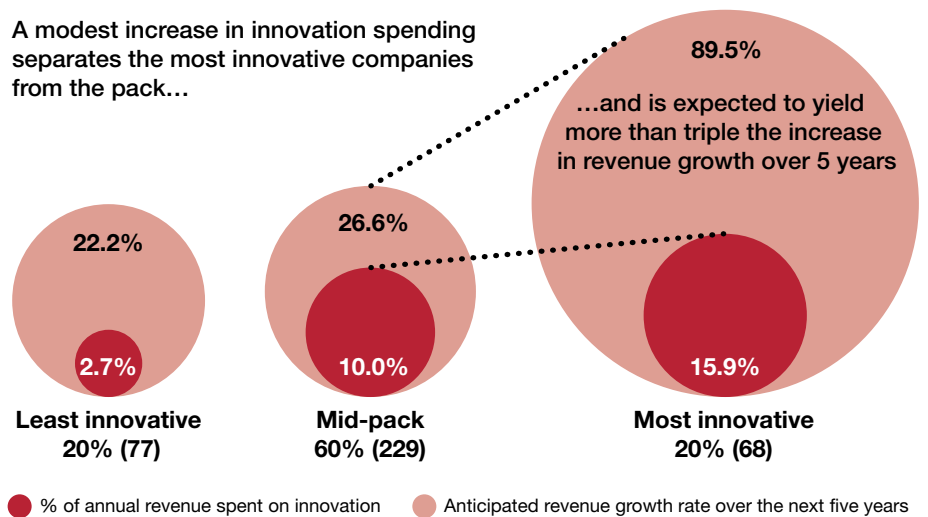
# Harnessing innovation to accelerate growth

The most successful innovators are marked by their success in harnessing the power of innovation to accelerate growth. Across the TMT companies interviewed for this report, 84% are focusing on growth over the next five years, with nearly a third (31%) of TMT executives describing their growth plans as ‘aggressive.’ This ambition translates into an anticipated revenue growth rate of 37.5% over the next five years, the equivalent of 6.6% per year.

Leading innovators have even stronger growth ambitions: Figure 3 shows that the 20% most innovative TMT companies anticipate 89.5% growth over the next five years, more than twice the TMT average (37.5%) and over four times higher than the least innovative TMT companies (22.2%).<sup>3</sup> Moreover, this correlation between sophisticated innovative practices and superior revenue growth is reflected in historical performance. Using publically available data, we tracked revenue growth of the most and least innovative TMT companies over the past three years. In real terms, the most innovative in our sample collectively delivered more than US \$45 billion of additional revenue growth (US \$60.7 billion vs. US \$14.4 billion) over the previous three years. This is the

**Figure 3: Correlation between innovation sophistication, revenue growth and % of revenue spent on innovation for TMT companies**

A modest increase in innovation spending separates the most innovative companies from the pack...



Our analysis reveals a correlation between innovation sophistication, anticipated revenue growth rate and proportion of revenue spent on innovation.

equivalent of more than US \$1 billion per company, or an increase in revenue of 14% attributable to innovation.

Figure 3 highlights a further correlation between anticipated revenue growth and levels of innovation spend. Our data suggests TMT companies that spend a higher proportion of their revenue on innovation are more likely to benefit from higher revenue growth. This

indicates lack of innovation investment is a barrier to growth. However, simply spending more will not automatically translate into higher revenues. As Rob Shelton, PwC’s Global Innovation Leader, observes, ‘Experience shows that it is far more important to manage how innovation funds are spent rather than worrying excessively about budgets. Growth is more likely to arise when innovation funds are being used effectively.’

*‘Experience shows that it is far more important to manage how innovation funds are spent rather than worrying excessively about budgets. Growth is more likely to arise when innovation funds are being used effectively.’*

— Rob Shelton, PwC’s Global Innovation Leader

<sup>3</sup> 20% most and least innovative TMT companies are identified based on a balance scorecard comprising six areas: importance of innovation; appetite for innovation; proportion of annual revenue derived from major products or services launched in the previous year; proportion of annual revenue spent on innovation; proportion of products and services co-created with external partners; projected revenue growth over the next five years.

# The challenge of ‘innovating by design’

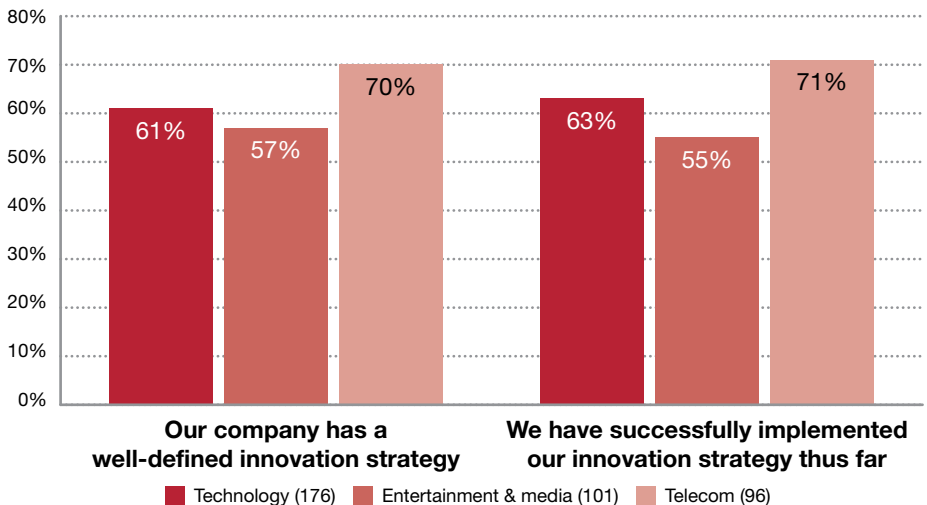
So how can a company ensure that investments are being made in the right kinds of innovation, that funds are not being wasted, and that processes are in place to make innovation sustainable? Our research indicates that TMT executives acknowledge that in order to truly be competitive, more focus on innovation strategy is needed. Thirty percent of executives interviewed say their greatest concern is developing the right innovation strategy. Furthermore, less than two-thirds of TMT companies (62%) state they currently have a well-defined innovation strategy or that they have successfully implemented their strategy so far. Getting the strategy right seems to be a particular challenge for Entertainment & Media companies, see Figure 4.

TMT executives who agree their innovation strategy is well-defined are also more likely to agree their strategy has been well-executed: 83% of these executives believe they have successfully implemented their innovation strategy to-date, compared to an average of 63% for all TMT executives. This suggests that having a clearly articulated innovation strategy leads to greater confidence in the ability to execute this strategy successfully. Without a successful innovation strategy, companies can fall into the trap of innovating for its own sake, with little understanding of how they are addressing changing customer needs. ‘What sets apart the most successful TMT companies is that

**Figure 4: The correlation between innovation and superior revenue growth is in evidence across all sectors within TMT**

Company	Anticipated revenue growth over the next five years	% of annual revenue spent on innovative
All TMT companies	37.5%	9.6%
20% most innovative TMT companies	89.5%	15.9%
Technology	33.9%	9.1%
20% most innovative Technology companies	62.2%	13.5%
Entertainment & Media	30.7%	9.3%
20% most innovative E&M companies	45.0%	13.4%
Telecommunications	51.7%	10.9%
20% most innovative Telecommunications	192.8%	23.3%

**Figure 5: Respondents who agree with the following statements about their innovation strategy**



*Getting the innovation strategy right seems to be a particular challenge for Entertainment and Media companies; there is more success within Communications companies.*



they really understand the true value of their innovations to the market,' says Rolf Meakin, PwC's Global and UK Telecom Advisory leader. 'Creating a new generation of functionality or improving the performance of a device isn't sufficient if these innovations don't deliver more value to consumers.'

It is a misconception that innovation is a serendipitous activity that cannot be planned. 'Many TMT executives are content to let innovation happen of its own accord instead of pursuing innovation by design,' says Russ Sapienza, PwC US TMT Advisory Principal. 'I see a lot of innovation at the grass roots level—within a division, within a team—but this is not supported by a corporate-wide innovation agenda,' he says. As a result, innovation from the bottom up is often suffocated.

In TMT, a successful innovation strategy also depends on being able to quickly spot emerging market trends and adopt them within their own products and services. In the mobile handset market, for example, although Samsung wasn't the first to launch touch-based mobile devices, it was able to identify the potential of touch and became an early adopter of the technology. Other global competitors such as Xiaomi, a Chinese electronics manufacturer and retailer, have sought to capture share of the smartphone market by developing lower cost alternatives to the market leaders.

## **Amazon invests in customer-focused innovations to drive revenue growth**

*Amazon's keys to success:*

- Speed-to-market
- Applying data analytics with a focus on the customer
- Willingness to transform the business model
- Investment in a broad and balanced innovation portfolio

Since its inception almost two decades ago, Amazon has continually embraced innovations focused on delivering an enhanced customer experience and a more streamlined supply chain. The results have been significant: revenue has grown at 35% CAGR and the latest annual online sales are more than US \$200 billion. Amazon's stock price is now 18 times higher than it was in 2001. It is estimated that more than one in three product searches now start on Amazon.

What has contributed to Amazon's innovation success? In short, Amazon's **rapid, multi-pronged approach** to innovation, coupled with sustained investment in innovation, has enabled it to consistently provide more value to customers than its competitors. Innovations such as 1-Click ordering, Amazon Marketplace, Amazon Prime membership, and its Kindle tablet have all offered new ways for customers to interact with Amazon content and make purchases online.

Taken together, these innovations equip Amazon with **valuable data analytics** about customer behaviour and preferences which in turn have offered customers greater personalisation of content and enabled Amazon to introduce dynamic pricing and be world leaders in customer segmentation.

Together with technology and customer experience, the **business model** has been another key focus of Amazon's continued innovation efforts. For example, Amazon Web Services, a cloud-based storage service, represents an innovative offering for Amazon and is a key component of Amazon's continued profitability. The rapid expansion of this part of Amazon's business provides scale and funding for Amazon's content and media streaming services, itself an innovative addition to Amazon's core retail business model.

Where does Amazon go from here? It is likely that Amazon will continue to innovate business model, operations, and customer experience: expanding into the groceries market, better leveraging search and recommendation functionality, and growing Amazon Web Services and its original entertainment content are all key priorities. Jeff Bezos, founder and CEO of Amazon, has described the company's philosophy as 'Put the customer first. Invent. And be patient.'

# Use disruptions to your advantage

There is a global transformation underway in how businesses approach breakthrough and radical innovation, to which no industry or geography is immune. This represents both a competitive challenge and an opportunity. 'Because innovation is not limited to a small number of industries or countries, there are numerous lessons that can be borrowed, tailored and made to work for any business,' says PwC's Rob Shelton.

Given the pace of technological change, and the rise of innovation up the corporate agenda, the pressure to innovate for TMT businesses has never been greater than it is now. This pressure is compounded by three trends likely to impact TMT companies in the near future:

## 1. New competitors and disruptive business models.

Across all industries, new competitors are disrupting the status quo. Their presence fundamentally challenges existing business models to the extent that

even companies at the forefront of innovation are responding to the need to continually evolve. 'Leading innovators are prepared to cannibalise themselves to explore new opportunities, because they understand that if they do not, a competitor will do that for them,' says Nicolas Borges, PwC Spain Telecom Advisory Partner.

customer needs and communicate valuable intentions. 'I anticipate that customers, audiences and fans will share their data in a more commercially-driven way in future,' says PwC's Huw Thomas. 'This means that they will grant businesses access to their data only when it results in better products and services in return.'

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— Rob Shelton at PwC

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**2. Rapidly shifting customer demands.** Customer demands and loyalties will continue to be unforgiving. Big data presents incredible opportunities for TMT companies, but only if this mountain of information is used to predict future customer behaviour, and is applied in a way that allows companies to be more responsive to

## 3. Reforming of the value chain.

Innovation happens very quickly, and collaborators may quickly turn into competitors. Market evolution requires all parts of the value chain to be connected and coordinated. In some industries there is likely to be significant consolidation ahead, whilst in other industries, start-ups will continue to cause disruption and fragmentation. Companies that find their space in the value chain is shrinking need to focus on innovation as an effective way to address this problem.

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*'Leading innovators are prepared to cannibalise themselves to explore new opportunities, because they understand that if they do not, a competitor will do that for them.'*

— Nicolas Borges, PwC Spain Telecom Advisory Partner

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# Don't let your dominance be your downfall

Although any company can achieve enhanced growth through innovation, the best are not bound to prior successes, recognising how quickly they can shift from being a leader to a laggard. All too often, extreme success leads to more defensive innovation approaches because executives are unwilling to slaughter the cash cows that generate so much ongoing revenue. 'Companies become fixed on retaining their existing, dominant position rather than adapting their innovation DNA to an ever-changing market environment,' observes Dan DiFilippo. 'The danger,' he says, 'is they become a victim of their own success.'

The most successful innovators have the mindset and versatility to avoid this pitfall. Continuous improvement and developing new products and services with the customer at the centre is no longer optional. 'Over the last two decades we have seen multiple companies that seemed invincible at

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*'Over the last two decades we have seen multiple companies that seemed invincible at one time fall from the top and become stars of the past. Their decline was not for lack of a realisation or desire on their part to focus on innovation.'*

— Raman Chitkara, PwC's Global Technology Industry Leader

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one time fall from the top and become stars of the past. Their decline was not for lack of a realisation or desire on their part to focus on innovation,' says Raman Chitkara. 'All of these companies spend a significant proportion of their revenue on research and development.'

The lesson to be taken from this is that without an innovation vision and the organisational levers to quickly implement this vision, money spent does not always guarantee results. Speed-to-market is increasingly important, since the short-term advantages won by product innovation

may have a limited lifespan. TMT companies must be agile in leveraging and monetizing the advantage immediately and with dominance—but must have the confidence to move on when competitors circle the waters and a once-breakthrough innovation turns into a commodity. True innovators also look inward, and are not afraid of reinventing the organisation.

Achieving success in the long-term, within markets where the speed of innovation is fast, requires a strategy and culture that can adapt to a dynamic competitive environment.

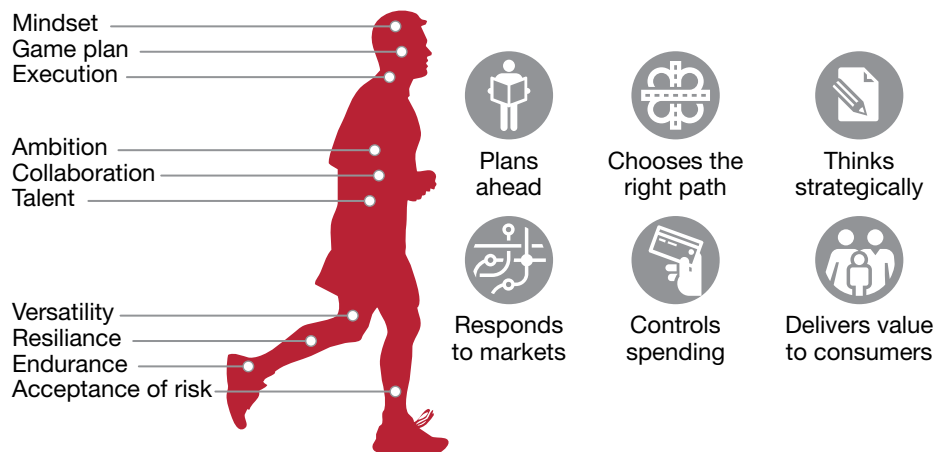
# Are you an ‘Innovation Decathlete’?

Forty-five percent of executives surveyed for this report agreed that establishing the right innovation culture internally was a key challenge to making innovation happen. A solution to this challenge emerges when looking at the common attributes that are shared by the most well-rounded innovative companies, or ‘Innovation Decathletes.’ Just like decathletes, the leading TMT innovators excel at multiple disciplines, rather than simply focusing on one area of innovation expertise. To become an ‘Innovation Decathlete’ entails investing in a broad set of innovation priorities, and exhibiting the following characteristics of innovation culture:

- **Mindset:** Take an innovation lens to all areas of the business and decision-making.
- **Game plan:** Create a clear and flexible strategy for innovation efforts, and communicate throughout the organisation.
- **Execution:** Make innovation a collective priority through the business from senior executives downwards.
- **Ambition:** Innovation without the handbrake on. Seek ways to disrupt the industry ecosystem or value chain to emerge as the innovation leader.

Figure 6: The innovation decathlete

## Attributes and activities



- **Collaboration:** Look for opportunities to foster collaboration with employees, customers, external partners and even competitors.
- **Talent:** Embed innovation in the DNA of the organisation and its people—particularly senior leadership.
- **Versatility:** Invest strategically in a wide innovation portfolio, including products, services, technology, supply chain, systems and processes, customer experience, and business model innovation.
- **Resilience:** Establish a culture that encourages experimentation and doesn't over-punish failure.
- **Endurance:** Maintain a long-term vision whilst meeting immediate goals and demands.
- **Acceptance of risk:** Focus on opportunities offered by breakthrough and radical innovations and be prepared to take sensible decisions about risks.

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# Questions to spur a winning innovation strategy

What does successful innovation look like? In developing an innovation strategy, TMT executives need to ask themselves five fundamental questions:

## 1. Where are you now, and where do you want to go?

Is your current market position good enough in the short and long term? Think critically about what isn't working in your innovation strategy. Identify what you will have to change in order to take your business from 'point a' to 'point b.' Where are the weak links in your organisation? And where should innovation investment be focused – on products, services, technology, systems and processes, supply chain, customer experience, or your business model?

## 2. What is your engine for generating innovation?

Where and how will new ideas be fuelled within your organisation? How effective is this process? If new ideas are not actively encouraged and nurtured, the innovation process will stall. Identify the roadblocks to creativity and how to make your innovation engine roar.

**3. How much innovation do you need?** Given the growth objectives of your business, how much innovation is required? Too much innovation can be a drain on resources. Too little innovation and opportunities for growth are squandered. Failure to prioritise means you may miss the next big thing.

**4. What balance of innovation do you need?** What ratio of incremental, breakthrough and radical innovation is required? What kinds of innovation will deliver against the desired business goals? In which areas are you more open to taking calculated risks? How should the different types of innovation be utilised across your portfolio?

**5. Do you have the resources necessary to execute your strategy?** How can you make your people more innovative? Is it possible to retrofit your people with innovation DNA, or will you need to bring in new people who are dedicated to innovation? Assess honestly what you have, what you don't have, and what's possible to change.

Answering these questions will allow executives to be more deliberate in their thinking about the innovation approaches their companies should take. It is possible to think like an 'Innovation Decathlete' to create a strategy that will allow innovation priorities to change and adapt over a period of time, and which will deliver both immediate and long-term results.

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*In the next paper in this series we explore the lessons to be learned from the most innovative TMT companies: looking at the qualities of an 'Innovation Decathlete' and how can you apply this to your business.*

*In the final paper we consider how the barriers to innovation can be overcome and shine a light on best practice innovation approaches occurring across the TMT industries.*

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# Appendix: a note on methodology

We would like to thank the 374 TMT executives who took part in our Global Innovation Study. Our quantitative and qualitative research was conducted among board-level executives responsible for innovation within their company across 20 different countries globally. In this context innovation was taken to encompass products, services, business model and customer experience. Eighteen percent of interviews were from companies that generate more than US \$1bn+ revenue. Interviews were conducted by PwC and Meridian West.

For the purpose of our analysis, from the companies interviewed we have identified the top 20% innovators

(68 companies), and the bottom 20% innovators (77 companies) to compare and contrast their relative characteristics and experiences. These companies were identified based on a balanced scorecard comprising their responses to the following six areas explored in our study:

- How important the interviewee said innovation is to their company;
- Their appetite for innovation (on a scale from ‘innovation laggard’ to ‘innovation pioneer’);
- The proportion of annual revenue derived from major products or services launched in the previous year;
- The proportion of annual revenue spent on innovation;
- The proportion of products and services co-developed with external partners;
- Their projected revenue growth over the next five years.

For each of the six attributes every company was given a score between 1 and 5. The most innovative 20% of companies scored a total of 24 or more out of 30, whilst the least innovative 20% of companies scored a total of between 8 and 15 out of 30.

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## Calculating the US \$45 billion uplift for TMT

*To calculate the US \$45 billion revenue uplift for TMT companies, we first identified the 20% most innovative and 20% least innovative of the 374 TMT companies interviewed for PwC’s **Breakthrough innovation and growth** study. This was achieved by assigning scores to their responses to six different innovation questions and ranking from highest to lowest, with the most innovative achieving the highest scores out of a maximum total of 30 points. Once identified, we used publically available data to record the most recent revenues of these two groups of companies as well as revenues three years ago to calculate their growth over that period. Collectively the most innovative grew by an additional US \$45bn compared with the least innovative.*

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# Want to find out more?

For help and advice with your innovation strategy and process, please contact one of our innovation leaders.

## **Global TMT Leader**

**Dan DiFilippo**  
Tel: +1 646 471 8426  
dan.difilippo@us.pwc.com

## **Global Technology Industry Leader**

**Raman Chitkara**  
Tel: +1 408 817 3746  
raman.chitkara@us.pwc.com

## **Global Telecom Industry Leader**

**Pierre-Alain Sur**  
Tel: +1 646 471 6973  
pierre-alain.sur@us.pwc.com

## **Global Entertainment and Media Industry Leader**

**Marcel Fenez**  
Tel: +852 2289 2628  
marcel.fenez@hk.pwc.com

## **Australia**

**David Wiadrowski**  
Tel: +61 2 8266 7598  
david.wiadrowski@au.pwc.com

## **Brazil**

**Federico Servideo**  
Tel: +55 11 3674 3577  
federico.a.servideo@br.pwc.com

## **Canada**

**Philip Grosch**  
Tel: +1 416 814 5855  
pgrosch@ca.pwc.com

## **China, Hong Kong and Singapore**

**Huw Andrews**  
Tel: + 86 21 2323 2002  
huw.andrews@cn.pwc.com

## **France**

**Peter Vickers**  
Tel: + 33 156577305  
peter.vickers@fr.pwc.com

## **Germany**

**Sebastian Feldmann**  
Tel: +49 89 5790 5273  
sebastian.feldmann@de.pwc.com

## **India**

**Ramaswami Lakshman**  
Tel: +91 99800 27354  
ramaswami.lakshman@in.prtm.pwc.com

## **Italy**

**Andrea Samaja**  
Tel: +39 0266720555  
andrea.samaja@it.pwc.com

## **Japan**

**James So**  
Tel: +81 3 5326 9090  
james.so@us.pwc.com

## **Middle East**

**Anil Khurana**  
Tel: +97143043100 (ext. 3652)  
anil.khurana@ae.pwc.com

## **The Netherlands**

**Sander Kranenburg**  
Tel: +31 088 792 53 09  
sander.kranenburg@nl.pwc.com

## **Nordics**

**David Skov**  
Tel: +46 0723 530534  
david.skov@se.pwc.com

## **Portugal**

**Vera Oliveira Santos**  
Tel: +351 213 599 447  
vera.oliveira.santos@pt.pwc.com

## **Russia**

**Alexander Ordinartsev**  
Tel: +7 495 967 6394  
alexander.ordinartsev@ru.pwc.com

## **South Africa**

**Elmo Hildebrand**  
Tel: +27 11 797 5192  
elmo.hildebrand@za.pwc.com

## **South Korea**

**Glenn Burm**  
Tel: +822 709 0394  
glenn.burm@au.pwc.com

## **Spain**

**Nicolas Borges Marcos**  
Tel: +3 491 5685 262  
nicolas.borges.marcos@es.pwc.com

## **Switzerland**

**Matthias Memminger**  
Tel: +41 58 792 13 88  
matthias.memminger@ch.pwc.com

## **United Kingdom**

**Huw Thomas**  
Tel: +44 0 20 721 33758  
huw.a.thomas@uk.pwc.com

## **David Percival**

Tel: +44 0 7714 229 219  
david.percival@uk.pwc.com

## **United States**

**Robert Shelton**  
Tel: +1 408 817 3700  
rob.shelton@us.pwc.com

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