









TOMORROW: 2050

Alternative Futures for Technology, Media and Telecommunication (TMT)

INTRODUCTION

Cross-border M&A activity in the technology, media and Telecommunication (TMT) sector will continue its aggressive growth. Given the scale of market growth in the TMT sector and the formidable pace of technological evolution, acquisitions are driven by competition to acquire competencies at speed.

Investment in innovation accelerators continues to outpace other categories, with robust growth in cognitive AI, cloud technologies, the Internet of Things, mobile technologies and software as a service. As a world-leading corporate finance advisory firm with deep expertise in TMT and a track record of transactions across all TMT verticals, we are perfectly positioned to be at the cutting edge of M&A developments. Our global group of experts has long-standing relationships in every corner of the world; it is this that sets us apart. We get the deal done.

In this report, we've worked with the Institute for Futures Research at Stellenbosch Business School to imagine four alternative futures for the TMT sector, with insights about M&A potential in each of the scenarios.

Take a leap into the alternative futures of the TMT sector with us.



PURPOSE

The purpose of this publication is to explore the alternative futures of the TMT sector toward 2050, with particular emphasis on M&A potential at a global level.

Scenario planning exercises are well-known and recognised tools for gaining foresight about plausible futures and identifying key drivers for business growth and the potential influence of future events. To this end, four scenarios are presented. The development of these scenarios was based on a process that first identified the key drivers, from which pivotal uncertainties were distilled. These were then used to craft the scenarios.

Importantly, an inclusive co-creation approach was used from the outset.

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FUTURES THINKING PRINCIPLES

THE GROUND RULES



Seek knowledge about those factors shaping the future

We do not make predictions



Craft alternative futures

Understand there is more than one possible future



Explore the issue from multiple perspectives

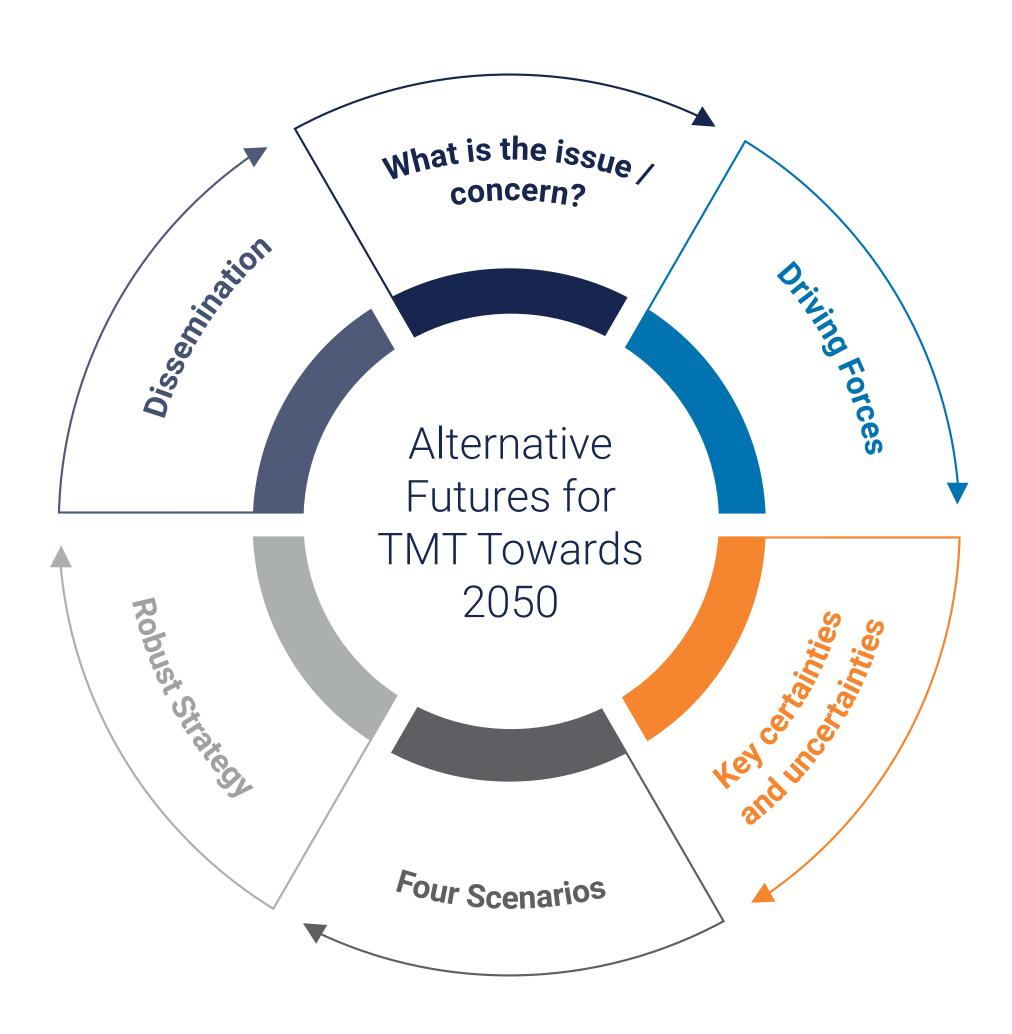
See change as holistic and systemic



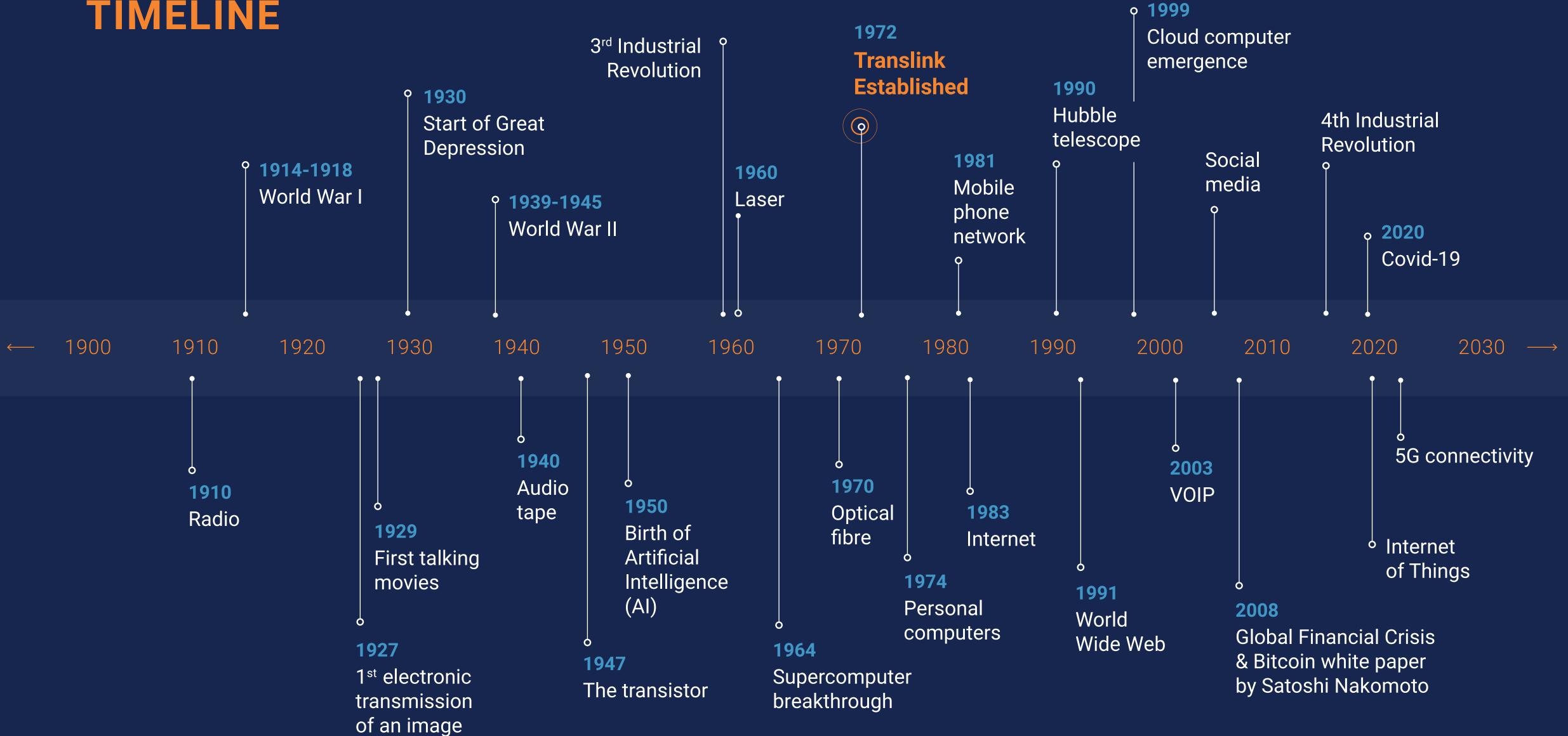
Scenarios offer learning journeys

They enable us to rehearse for the future

THE SCENARIO PROCESS







DRIVING FORCES

Forces that influence the futures of Technology, Media and Telecommunication toward 2050

These driving forces were sourced from a comprehensive environmental scan and from think sessions with key stakeholders. This process ensured that the driving forces identified for the industry were as comprehensive as possible.



Political

- The TMT sector is highly vulnerable to geopolitical tensions, and certain technologies are at the forefront of geostrategic conflict.
- The potential for hybrid warfare has increased as a result of global economic interdependence, widespread internet access, growing attack surfaces, and increased dependence on the digital sphere.
- Power struggles between governments and big tech companies.
- Rising political volatility.
- Space is becoming crowded; by multiple parties interested as well as by physical objects.

Economic

- Economic power is shifting from Europe and North America to Asia.
- Rising skills and labour shortages.
- Increased uncertainty from a long list of global disruptions prompt countries and businesses to rethink their trade, investment and operation policies, revisiting globalisation and supply chains.
- Industrial revolutions: While many businesses still view the Fourth Industrial Revolution (4IR / Industry 4.0) as the "next wave", the fifth and sixth revolutions are already on the horizon.

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- Rapid urbanisation, especially in Asia and Africa.
- Global migration, specifically migration as people move to pursue socioeconomic opportunities, flee from conflict, or as a result of climate change, floods or droughts.
- **Digital inequality** exists at present; many efforts aimed at digital inclusion are planned for the near future.

Technological

- Rapid technological advancement; the accelerated development and adoption of new technologies.
- Expanding attack surfaces, increases in the frequency and the sophistication of attacks, and a cybersecurity skills gap work towards a **perfect storm in cybersecurity**.
- Uncertainty about whether the metaverse is hype or hyperreality.
- There is an acceleration of tech-driven industry convergence.

Environmental

- Climate action failure, extreme weather and biodiversity loss are risks on a global scale.
- Resources become increasingly scarce.
- The TMT sector plays a dual role in creating a more sustainable future while it needs to transform its own systems, it could also act as a catalyst for other sectors.
- The TMT sector is a major contributor to global energy use, emissions and e-waste; it is currently forecast to account for 14% of global energy use by 2040. There's massive opportunity for the industry to play a dual role in creating a more sustainable future. While it needs to transform its own systems, it could also act as a catalyst for other sectors.

Legal

- Regulating the digital economy is becoming increasingly complex.
- There is a continuous tug-of-war between enabling innovation and protecting people against potential harm from emerging technologies.
- Growing efforts to **reign in Big Tech**, levelling the playing field across global digital markets.
- Regulators find it challenging to work towards global standards and protect local interests simultaneously.

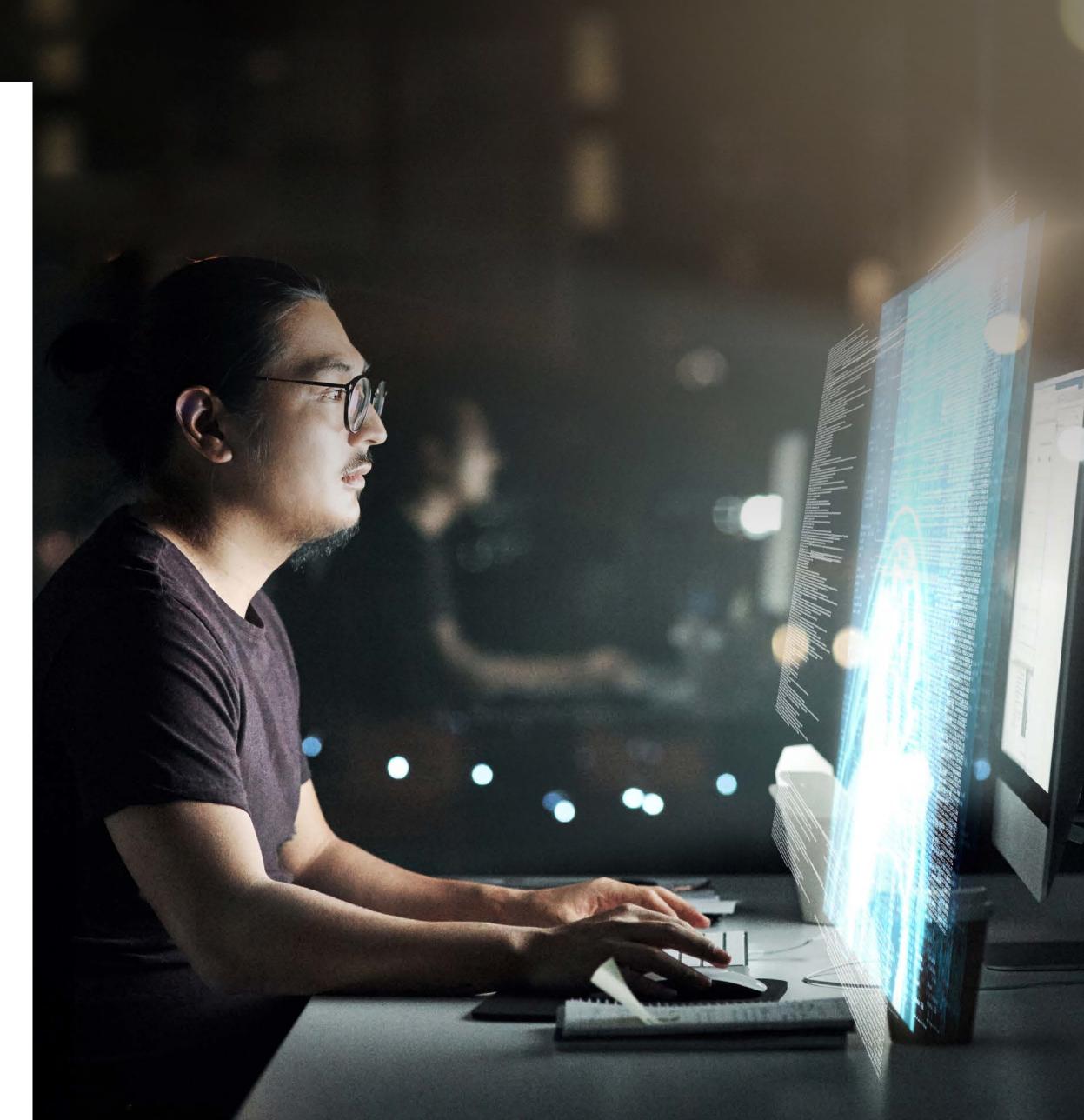
THE SCENARIO PROCESS

IN ACTION

Once the **driving forces** were established by the research team and ratified by the participants of a scenario planning think day, they were further evaluated. Each driving force was assessed for its level of uncertainty and the extent to which any shifts could influence the futures of the Technology, Media and Telecommunication sector toward 2050.

This process produced **five key uncertainties**. These five uncertainties were further analysed to identify the two scenario shaping factors.





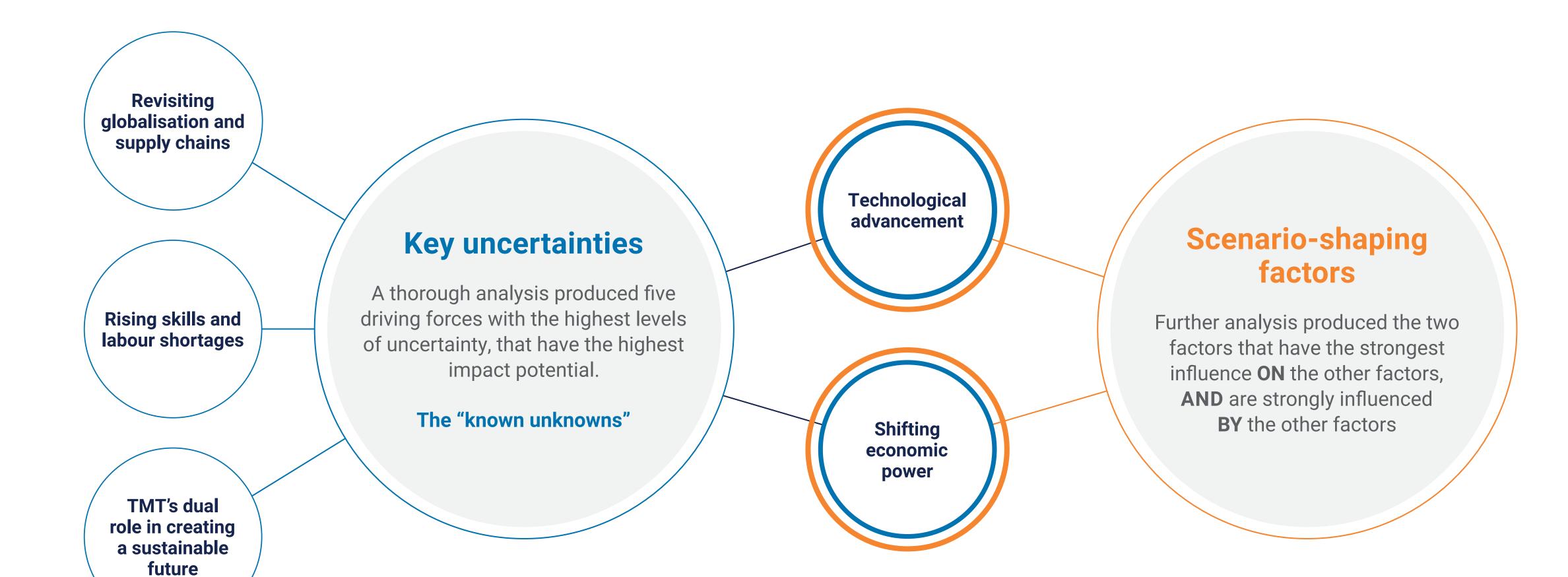
Tomorrow: 2050 Alternative Futures for TMT

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Economic centre of gravity shifts to the East and the South

Shifting

eco

omic

power

THE 2050 SCENARIOS

Red Scenario

Economic power shifts to the East and the South, and technologies are developed and adopted in a rapid manner, with little regard for ethics or sustainability.

Rapid, irresponsible, with little regard for ethics, people and sustainability

- Technological advancement

Purple Scenario

There is a fair distribution of economic power across the globe, but technologies are developed and adopted with little regard for ethics or sustainability.

Orange Scenario

Economic power shifts to the East and the South, and technologies are developed and adopted in a responsible manner, considering ethics, people, and sustainability.

Rapid, but responsible, considering ethics, people and sustainability

Blue Scenario

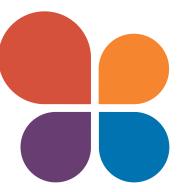
There is a fair distribution of economic power across the globe, and technologies are developed and adopted in a responsible manner with consideration for ethics, people, and sustainability.

Power sharing; fair distribution of economic power

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A DEEP DIVE into each scenario



RED SCENARIO

Red is the colour of energy and action, but also warns of danger. Similarly, in this scenario, technologies are developed and adopted in a rapid manner, with little regard for the social, ethical, people, and planetary consequences.

Exploring the critical factors catalysing this scenario \rightarrow

- Red

Orange

Blue

Purple

A global trade war shifts power dynamics

Towards 2050, some of the countries that were categorised as developing nations in 2022 triumphed in a global trade war, thereby achieving economic and political dominance over the West.

The new economic powerhouses are questioning the benefits of globalisation, and are prioritising self-reliance in key technologies. In response, previously dominant economies like the US are pushing for increased domestic production, while simultaneously seeking to build resilient global supply chains.

Competing policies, standards, laws and regulations are contributing toward an increasingly fragmented and polarised TMT sector.

Ageing populations prompt swift action

Some areas of the world experienced significant ageing toward 2050, and in those countries with predominantly older populations, labour and skills shortages supported the development and adoption of innovative labour-replacing technologies.

Initially, these labour-replacing technologies had a very destructive influence on existing jobs in countries where the

populations were still young and inappropriately skilled for next jobs. But, these countries made concerted efforts to develop appropriate skills among their youthful populations, and now these young people are highly sought-after resources in the global TMT sector.

Technology investment decisions are driven by profitability and efficiency. Where technologies are developed to (seemingly) support initiatives toward increased sustainability, the main driver is still profitability. The accepted rule is that 'we do it if it can make us money'.

In the words of the CEO of (the hypothetical) NextTech Media and Telecommunications: "If we don't do it, someone else will. So, we do it and make the money. Someone else can worry about non-essential considerations like sustainability and ethics."

"If we don't do it, someone else will. So, we do it and make the money. Someone else can worry about non-essential considerations like sustainability and ethics."

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- Red

Orange

Blue

Purple







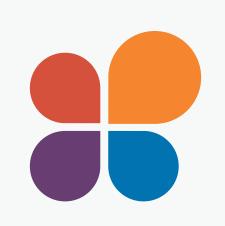
ORANGE SCENARIO

Orange is a colour that represents energy, creativity, optimism and positivity. This symbolism resonates with a 2050 TMT sector where technologies are developed and adopted in a creative, yet very responsible manner. The TMT sector is hailed for its focus on technologies that empathise with the imperative of protecting the planet and its resources, of being sympathetic towards human wellbeing, and considering ethical consequences.

The TMT sector is hailed for its focus on technologies that empathise with the purpose of making the world a better place for human beings.

Towards 2050, a number of countries in Asia and the global South that were seen as emerging economies in 2022, developed to the extent that they now have economic and political dominance over the West, and they take this responsibility very seriously.

Exploring the critical factors catalysing this scenario \rightarrow



Red

- Orange

Blue

Purple

New vs old

Similar to the situation in the Red Scenario, the new economic powerhouses are questioning the benefits of globalisation, and are prioritising self-reliance in key technologies. In response, previously dominant economies like the US are pushing for increased domestic production through protectionism, while simultaneously seeking to build resilient global supply chains.

Skills, labour and the sector's dual role

Interesting shifts occurred in the labour and skills domain toward 2050. Some countries experienced significantly slower population growth, combined with increased ageing of their populations. This resulted in profound labour shortages and, combined with rapid technological advancement, also skills shortages. However, the new economic powers of the world considered these trends and developed appropriate technologies and skills programmes with a focus on keeping people economically active in an ethical manner. Furthermore, green conscious employees drive both talent retention and attraction strategies.

The 2050 TMT sector is fulfilling a dual role - it creates technologies for itself, while also acting as a catalyst for other sectors. For example, smart technologies assist with quantifying, monitoring and predicting energy usage to achieve greater efficiency, while ICT solutions are developed in such a manner that they actually reduce global emissions.

What this means for M&A

M&As in the new dominant markets of 2050 are carefully thought through; there is a particular focus on deals that consider the influence of technologies on the wellness of people as well as the Earth.

Interesting deals happen to facilitate skills development for the TMT sector.

Dealmakers have to navigate a strongly regulated TMT sector - a technology must pass the test of being ethical, good for people and the Earth.

M&A deals happen in previously dominant markets to secure local supply, and to solidify opportunities to participate in next markets through the establishment of resilient supply chains.



BLUE SCENARIO

Blue is the colour of hope, fairness and balance. In this scenario, technologies that empathise with the imperative of protecting the planet and its resources, of being sympathetic towards human wellbeing, and consider ethical consequences are developed and adopted in a rapid, yet responsible manner.

The countries that were referred to as the major developed and developing countries back in 2022, now share both economic and political power evenly. They collaborate to address the world's structural and developmental challenges.

Exploring the critical factors catalysing this scenario \rightarrow



Orange

- Blue

Purple

Harmony prevails

Countries around the world are working together to establish resilient supply chains. These chains have a good and fair balance of both local and foreign supply. Well-informed regulators meet regularly and work towards shared standards, policies and regulations.

TMT sets the precedent

Rising skills and labour shortages received global attention after 2022, and leaders worked toward finding a balance between the development of suitable technologies and appropriate skills to fulfil the needs of the markets in a fair and responsible manner, putting the well-being of people and the continued sustainability of the Earth's systems at the centre. People with appropriate skills work from anywhere to serve anyone.

The TMT sector of 2050 is difficult to demarcate. It has developed into the overarching catalyst for many other sectors, enabling the journey toward a responsible and fair world for everyone.

What this means for M&A

M&A decisions are made based on the increased fairness and responsibility criteria and expectations that are enabled through the deal and the technologies that are acquired.

The well-considered regulatory environment is tough, but clear.

From 2022 onward, lucrative deals were found in M&As between organisations that focus on skills development and enablingwork-from-anywhere for the TMT sector.

Deals happen across previously well-defined sectoral boundaries, and some deals even create brand new intersectoral entities.

PURPLE SCENARIO

The colour purple signifies energetic creativity, emerging from a continuous fusion of red (danger) and blue (fairness).

In the purple scenario, the TMT sector of 2050 finds itself in a situation where the countries of the world share economic and political power in a fair manner; however, technologies are developed and adopted in a rapid, irresponsible manner with little regard for ethics and sustainability.

Exploring the critical factors catalysing this scenario \rightarrow



Red

Orange

Blue

- Purple

Competition is rife

Even though countries around the world share economic and political power in a fair manner, each country still aims at securing sufficient access to products and services, thereby seeking to secure local supply and to address potential vulnerabilities in global supply chains.

The 2050 TMT sector has a vast playing field, opened by the newly established relationships among the countries of the world. The TMT sector, driven by profit motives more than anything else, is a very competitive space.

People and profit

In countries where slowing population growth and ageing create skills and labour shortages, technologies are developed and adopted to replace the work that people used to do. These technologies spread to other parts of the world, displacing many workers in countries that still have young and not always appropriately skilled populations. Trying to balance out these effects, the global forum of countries imposes tech-taxes to compensate the countries losing economic opportunities as a result of the new labour-replacing technologies. These taxes are applied to fund skills development initiatives, repositioning the people that were displaced so that they can benefit from the next economic opportunities.

Concerns about sustainability are perceived to be secondary to considerations such as profitability and market dominance. If a sustainability-enhancing project is profitable, it will be pursued; otherwise not.

What this means for M&A

There may be a wider geographical scope for M&A deals in the purple scenario.

The regulatory environment is less complex, resulting from increased collaboration between countries. Therefore, the transaction costs of M&As are attractively lower.

First and fast movers gain advantages in the very competitive and volatile market space.

Some M&As are forged to address earlier supply chain vulnerabilities.

THE 2050 SCENARIOS

What this means for M&A in summary

Rapid, irresponsible, with little regard for ethics, people and sustainability

Red Scenario

- M&A deals happen fast
- They're primarily profit-led, with jostling for competitive market positions
- Players compete for 'the next technology'
- Deals are complicated by complex regulations plus players trying to forecast where economic activity is shifting to
- Global players try to secure local supply, while also fostering resilient global supply chains

Technological advancement

Purple Scenario

- A less complex regulatory environment means M&A transaction costs are lower
- Possibly wider geographical scope for deals
- First and fast movers have the edge in a competitive, volatile market
- Some deals are done to bolster earlier supply chain vulnerabilities

Economic centre of gravity shifts to the East and the South

Shifting

eco

omic

power

Orange Scenario

- Deals consider the influence of technologies on people and planet
- Deals facilitate skills development for TMT
- Deals must pass the test of being ethical in a strongly regulated TMT sector
- Deals happen in previously dominant markets to secure local supply and amplify opportunities to participate in new markets

Rapid, but responsible, considering ethics, people and sustainability

Blue Scenario

- Deals are made based on the increased fairness and responsibility criteria and expectations
- The well-considered regulatory environment is tough, but clear
- Lucrative deals are done between organisations focusing on skills development and 'work from anywhere' opportunities
- Deals happen across sectoral boundaries, some even creating new intersectoral entities

Power sharing; fair distribution of economic power

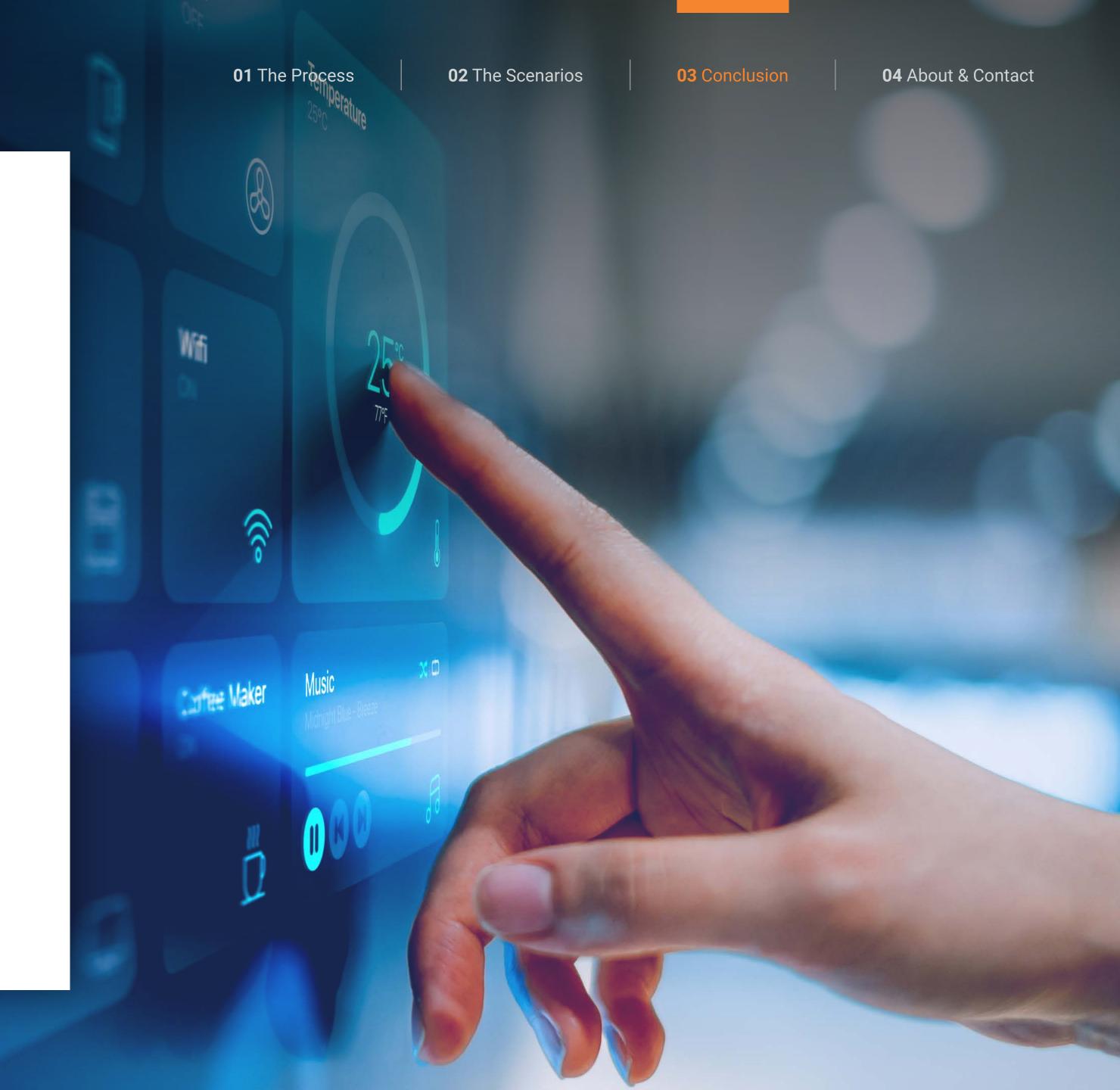
CONCLUSION

Translink Corporate Finance has a team of 25 TMT experts across the world, with deep local knowledge and sector expertise.

It is the group's vast footprint that sets us apart. We are perfectly positioned to get the deal done, anywhere, in any scenario.

We are also committed to stewarding our clients through every aspect of the transaction, which can be an emotionally-intensive journey.

Working with the IFR, Translink used its deep knowledge and expertise of the sector to fast forward into the future world of TMT. Every scenario has been carefully thought out, with particular attention paid to the ramifications for M&A. Translink is perfectly positioned to help you navigate these futures and partner your business in every aspect of the journey, irrespective of which future(s) unfold.





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ABOUT

The Institute for Futures Research

The Institute for Futures Research undertakes Futures research, trains corporates and individuals in the use of futures thinking tools, and offers various publications to keep clients updated on what is waiting on the horizon. Overall, our services are aimed at helping clients to acquire strategic foresight in order to make better long-range decisions. This will enable them to sense opportunities and mitigate risks in good time.

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ABOUT

Translink Corporate Finance

Translink is a trusted global corporate finance group with deep, local, sector specific expertise. Founded in 1972, we have +300 experts covering 35 countries on six continents. We've closed deals in almost every sector imaginable. Our powerful partnerships around the world set us apart. In some industries, we have pooled our global expertise to form Industry Groups focused on serving our clients with deeper insights into global developments and knowledge on targets and bidders in the respective markets.

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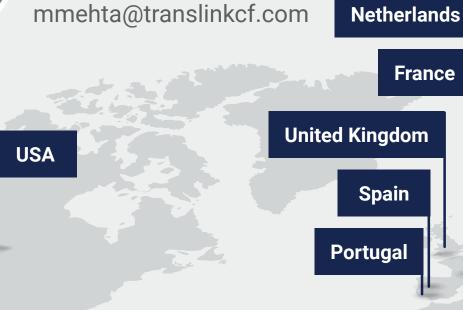
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