The European double up:
A twin strategy that will strengthen competitiveness.

Why the combination of sustainability and digital technologies is key to igniting future competitiveness for European countries.
New value is increasingly being found at the intersection of digital technologies and sustainability. The companies leveraging it—we call them Twin Transformers—are 2.5x more likely to be among tomorrow’s strongest-performing businesses than others.

European companies’ early lead in sustainability should make them a natural to be Twin Transformers, yet few are pursuing this path. This, as many express concerns about the pace of their recovery from pandemic effects.

What needs to happen for more European companies to act on this opportunity? They need a better understanding of its potential. They also need to apply Twin Transformers’ fundamental activities. This report examines the context, the opportunity and Twin Transformers’ salient actions.

<table>
<thead>
<tr>
<th>Twin Transformers:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Foster ecosystem-based business models</strong> driven by sustainability and enabled by technology. Considering sustainability as a business opportunity as well as a response to societal challenge.</td>
</tr>
<tr>
<td><strong>Combine resources to scale technology applications to sustainable practices.</strong> Embracing the idea that sustainability and technology don’t need to be separate priorities.</td>
</tr>
<tr>
<td><strong>Create organization-wide ownership</strong> combining financial and non-financial KPIs.</td>
</tr>
<tr>
<td><strong>Align partners</strong> for sustainable product lifecycles and improved traceability.</td>
</tr>
<tr>
<td><strong>Lead, empower and nurture talent</strong> to sustain the Twin Transformation, drive and support new sources of value.</td>
</tr>
</tbody>
</table>
Europe’s pandemic-related challenges persist, with many executives concerned about the pace of recovery.
Executives in Europe and North America expect a U-curve recovery that may take up to 18-months. APAC sees a faster rebound.

COVID-19 vaccination campaigns, concerted health policies and government financial support are expected to fuel a 4.2% lift in global GDP in 2021 after a fall of 4.2% in 2020, according to OECD.¹

However, Accenture’s survey of 4050 C-level executives in large companies worldwide reveals widespread concern over the pace of recovery.²

APAC respondents alone anticipate a rebound in as little as 12-months, while the rest foresee a longer recovery timeframe.

In Europe, only four industries anticipate getting back on their pre-COVID-19 profitable growth trend within 12-months: Health, Pharmaceuticals, Software & Platforms and Communication, Media & Entertainment.

Meanwhile, four industries expect lowered levels of operating profit through 2021: Airlines & Travel, Industrial Goods & Equipment, Chemicals and Utilities.

Average revenue growth of regional top 500 companies (Revenue in local currency, 2015-2020)

Operating profit evolution over time

Relative operating profit* averaged and indexed to the level in the past 3 years²

*Operating profit = Revenue * (1 + Revenue growth) * Operating margin

Source: Accenture Research analysis based on CapIQ

Source: Accenture CEO Survey, All respondents (N=4050), North America (N=1450), Europe (N=1300), APAC (N=1300)

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European C-levels feel they are losing ground against APAC, especially China.

Indeed, APAC C-levels convey greater confidence in their ability to meet 2021 growth targets than European and US C-levels: 45% of European and 48% of US C-levels think they will meet their 2021 targets, versus 60% of APAC respondents.²

Europe’s heterogeneity is evidenced by the wide range of responses from C-suite executives ranging from 30% to 60%. Executives in companies in Southern economies including Spain and Italy are generally more pessimistic. Further, many European C-levels believe their organizations lost ground against Chinese peers between May 2020 and November 2020.

The time to act is now.

### C-levels confidence to reach their 2021 targets

(\% agree that they will achieve their 2021 targets)

<table>
<thead>
<tr>
<th>Region</th>
<th>C-levels Confident to Meet 2021 Targets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Europe</td>
<td>UK – 59%</td>
</tr>
<tr>
<td></td>
<td>France – 52%</td>
</tr>
<tr>
<td></td>
<td>Germany – 51%</td>
</tr>
<tr>
<td></td>
<td>Italy – 34%</td>
</tr>
<tr>
<td></td>
<td>Spain – 31%</td>
</tr>
<tr>
<td>US</td>
<td>48%</td>
</tr>
<tr>
<td>APAC</td>
<td>60%</td>
</tr>
<tr>
<td></td>
<td>China – 91%</td>
</tr>
</tbody>
</table>

### European C-levels sentiment on relative competitiveness of Europe...

<table>
<thead>
<tr>
<th>Time Frame</th>
<th>European C-levels Compared to US</th>
<th>European C-levels Compared to China</th>
</tr>
</thead>
<tbody>
<tr>
<td>November⁴</td>
<td>33% 53% 12%</td>
<td>16% 34% 45%</td>
</tr>
<tr>
<td>May³</td>
<td>35% 37% 27%</td>
<td>40% 40% 17%</td>
</tr>
</tbody>
</table>

Source: Accenture CEO Survey, All respondents (N=4050), North America (N=1450), Europe (N=1300), APAC (N=1300)

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Performance trajectories diverge. Clear winners emerge.
Since the COVID-19 crisis began, companies’ growth trajectories have diverged

The COVID-19 crisis has reshuffled the growth trajectories. Each phase of this unprecedented crisis displays a set of winners and losers. The performance in the Resilience period (next 6-months) will be critical to secure a path upward in the Rebound phase (next 12-months). Time to act is now to reduce the divergence.

Company year-over-year revenue growth during COVID-19 crisis

Pre-COVID-19 | Past 6-months | In 6-months (expectation) | In 12-months (expectation)
--- | --- | --- | ---
> 5% growth | 43% | 31% | 31%
0% - 5% growth | 51% | 37% | 32%
No growth | 6% | | 

Legend for flows between periods
- Revenue increased
- Revenue stable
- Revenue decreased

Source: Accenture CEO Survey, All respondents (N=4050), North America (N=1450), Europe (N=1300), APAC (N=1300)
A third of European companies are positioned for profitable growth; a fifth are at risk of being “falling angels”.

Just 32% of European respondents expect to deliver profitable growth in the next phase of recovery from the COVID-19 crisis. These are our leaders of tomorrow*. ²

Some have gained an advantage as a result of their industry. However, we found companies positioned to be Tomorrow’s Leaders in all industries, not just in those that can claim an industry boost.

Nonetheless, fewer (9%) outside these “tailwind industries” managed to retain their previous edge and prove resilient throughout the crisis.

And a very few (4%) outside these industries have managed to reinvent themselves during the crisis and are doing better than before the pandemic.

Meanwhile, 19% of the companies in our study are “falling angels”, struggling to recover from damage to their business suffered as a result of the crisis.

Top 6 industries with high share of Falling Angels (>25%)
- Retail
- Capital Markets
- Energy
- Natural Resources
- Automotive
- Airline, Travel, Transport

Top 6 industries with high share of Tomorrow’s Leaders (>30%)
- Health
- Pharma, Biotech, Life Sciences
- Software & Platforms
- Communications & Media
- Consumer Goods & Services
- High Tech

Source: Accenture CEO Survey, All respondents (N=4050), North America (N=1450), Europe (N=1300), APAC (N=1300).

* A detailed definition of these potential strong performers, the middle category and falling angels, is available in the Methodology section.

Public Service companies were surveyed but not considered in this graph due to non-comparable financial metrics.
On average, Europe and North America have similar percentages of businesses poised to be among Tomorrow’s Leaders (32%), but fewer than APAC (41%). Of the three regions, Europe has the largest share of Falling Angels (19%).

Only 4% of European businesses are among the reinventors, on average. The UK stands out for having the largest share of reinventors, exceeding even APAC. Despite confidence in future growth, German respondents lag French’s ones in their share of Tomorrow’s Leaders due to lower than pre-COVID expected operating margins driven by rising costs.

Share of financial profile by country in Europe. UK and France benefit from a higher share of Industry Boost industries while southern Europe suffers from a lower share of Tomorrow’s Leaders and a higher share of Falling Angels.

Source: Accenture CEO Survey, All respondents (N=4050), North America (N=1450), Europe (N=1300), APAC (N=1300)
Unsurprisingly, Tomorrow’s Leaders are highly agile companies and they’ve proved it throughout the crisis.

Tomorrow’s Leaders have demonstrated more resilience during the crisis than others, thanks to their agility across capabilities.

% of high-level agility

Pre-COVID-19  Now

Tomorrow’s Leaders

<table>
<thead>
<tr>
<th>Efficiency</th>
<th>Cost-effective</th>
<th>Mindful risk-taking</th>
<th>Flexibility of making changes</th>
<th>Speed of decision-making</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-COVID-19</td>
<td>36%</td>
<td>36%</td>
<td>42%</td>
<td>48%</td>
</tr>
<tr>
<td>Now</td>
<td>36%</td>
<td>36%</td>
<td>42%</td>
<td>44%</td>
</tr>
</tbody>
</table>

Others

<table>
<thead>
<tr>
<th>Efficiency</th>
<th>Cost-effective</th>
<th>Mindful risk-taking</th>
<th>Flexibility of making changes</th>
<th>Speed of decision-making</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-COVID-19</td>
<td>48%</td>
<td>40%</td>
<td>39%</td>
<td>39%</td>
</tr>
<tr>
<td>Now</td>
<td>44%</td>
<td>32%</td>
<td>39%</td>
<td>39%</td>
</tr>
</tbody>
</table>

Source: Accenture CEO Survey, All respondents (N=4050), North America (N=1450), Europe (N=1300), APAC (N=1300)
Companies pursuing a Twin Transformation are 2.5x more likely to be among Tomorrow’s Leaders.
**Digital transformation defined the business landscape in the 2010s.**
Our research and experience indicate that the next decade of business change will be defined by the sustainability transition.

A few companies are already ahead in terms of linking digital and sustainable transformation—we call them Twin Transformers. These organizations are far more likely to have proven resilient during the COVID-19 crisis.

Only a fifth of sustainability or technology pioneers* in Europe manage to be Twin Transformers. The figures for North America are the same but there are more Twin Transformers in APAC.

“We should learn from this crisis. Digital, resilience and trust are key to building a truly sustainable world.”

Jean-Pascal Tricoire, Chairman & Chief Executive Officer, Schneider Electric

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**Twin Transformers are more likely to become Tomorrow’s Leaders, but fewer are European than Asian.**

**Pioneers** are companies ranked in the top quantile on sustainable transformation score or technology adoption score*

**Twin Transformers** are pioneers in technology AND pioneers in sustainable practices

---

**Likelihood of being among Tomorrow’s Leaders**
Odds ratio for Tomorrow’s Leaders between companies as pioneers for sustainable transformation, technology adoption and of both, versus those meeting none of these criteria.

**Share of Twin Transformers among pioneers in sustainability or technology in Europe, North America and APAC**

Average = 26%

- **Europe** 22%
- **North America** (21%)
- **Asia Pacific** 34%

Source: Accenture CEO Survey, All respondents (N=4050), North America (N=1450), Europe (N=1300), APAC (N=1300)

*See appendix for definitions of pioneers
The Twin Transformation is taking place in most industries in Europe. In APAC however, this path is concentrated in fewer industries.

In Europe, the Twin Transformation has started in most industries but three, while in APAC seven industries lag behind.

# of industries in each of the categories according to their contribution to Twin Transformners

<table>
<thead>
<tr>
<th>Category</th>
<th>APAC</th>
<th>Europe</th>
<th>North America</th>
</tr>
</thead>
<tbody>
<tr>
<td>Banking</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Industrial Goods &amp; Equipment</td>
<td>9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pharmaceutical</td>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aerospace &amp; Defence</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Consumer Goods</td>
<td></td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>Chemicals</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Energy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High Tech</td>
<td></td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Public Service</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Contribution share of the 19 industries to the group of Twin Performers

- Banking: 3 (%3)
- Communication & Media: 1 (%10)
- Industrial Goods & Equipment: 9 (%46)
- Aerospace & Defence: 14 (%73)
- Consumer Goods: 14 (%73)
- Chemicals: 14 (%73)
- Energy: 14 (%73)
- Health: 14 (%73)
- High Tech: 14 (%73)
- Public Service: 14 (%73)
- Automotive: 14 (%73)
- Capital Markets: 14 (%73)

Source: Accenture CEO Survey, All respondents (N=4050), North America (N=1450), Europe (N=1300), APAC (N=1300)
Most European businesses are well positioned to pursue a Twin Transformation.
European companies already prioritize sustainability and tech in their strategies for short-term rebound and mid-term competitiveness.

**Resilience**

<table>
<thead>
<tr>
<th>Region</th>
<th>Action Description</th>
<th>Europe</th>
<th>US</th>
<th>APAC</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>#1 Invest in leading tech (AI, Machine Learning)</td>
<td>31%</td>
<td>30%</td>
<td>34%</td>
</tr>
<tr>
<td></td>
<td>#2 Take measures to build a sustainable/green business</td>
<td>31%</td>
<td>26%</td>
<td>28%</td>
</tr>
<tr>
<td></td>
<td>#3 Train workforce to make it digitally fluent</td>
<td>28%</td>
<td>29%</td>
<td>28%</td>
</tr>
</tbody>
</table>

**Rebound**

<table>
<thead>
<tr>
<th>Region</th>
<th>Action Description</th>
<th>Europe</th>
<th>US</th>
<th>APAC</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>#1 Accelerating digital transformation</td>
<td>45%</td>
<td></td>
<td>45%</td>
</tr>
<tr>
<td></td>
<td>#2 Becoming a truly sustainable business</td>
<td>45%</td>
<td></td>
<td>45%</td>
</tr>
<tr>
<td></td>
<td>#3 Repositioning products/services/experiences</td>
<td>46%</td>
<td></td>
<td>43%</td>
</tr>
</tbody>
</table>

**Mid-term**

<table>
<thead>
<tr>
<th>Region</th>
<th>Action Description</th>
<th>Europe</th>
<th>US</th>
<th>APAC</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>#1 Accelerating digital transformation</td>
<td>45%</td>
<td></td>
<td>45%</td>
</tr>
<tr>
<td></td>
<td>#2 Becoming a truly sustainable business</td>
<td>45%</td>
<td></td>
<td>45%</td>
</tr>
<tr>
<td></td>
<td>#3 Repositioning products/services/experiences</td>
<td>46%</td>
<td></td>
<td>43%</td>
</tr>
</tbody>
</table>

Source: Accenture CEO Survey, All respondents (N=4050), North America (N=1450), Europe (N=1300), APAC (N=1300)
Investors are also keenly interested in companies’ commitments to these priorities.

Sustainability increasingly features in earnings calls, especially in Europe since 2014

Sustainability is a featured topic in far more European earnings calls than in other regions and mentions rose sharply in 2020.

In 2020, 47% of European companies within the 2000 largest companies worldwide, discussed sustainability-related topics in earnings calls. That’s up from 27% in 2018 and 20 percentage points ahead of North American peers.5

In the same year, 52% of those top European companies also discussed technology-related topics in earnings calls, on par with peers in North America and APAC.

“Europe believes it has a technological advantage in the green technologies. It needs and it wants to preserve that. The green movement is definitely going to be a winner from this [crisis].” 6

Neil Richardson, Investment Director, Aberdeen Standard

The coverage of digital and sustainability has risen fast during the COVID-19 crisis

Share of 2000 largest companies located in Europe that mention digital and sustainability in earning calls

Source: Accenture Research analysis of Earnings calls of largest 2000 companies in terms of revenues

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Ahead on the environmental ratings, European companies plan to accelerate adoption of technologies such as AI, Cloud and 5G.

European companies often out-perform their peers in sustainability rankings or on indices based on environmental, social and governance (ESG) ratings. They often score lower on technology adoption, but the “race” is close on both dimensions.

On sustainability practices, European companies have often moved first, for example taking action to reduce carbon emissions, resources, waste or water usage.

Switching to renewable energy, implementing energy efficiency measures (including in the IT space) and applying sustainability criteria to sourcing are increasingly common in European companies’ sustainability plans.

On technology adoption, pre-COVID-19, European companies were trailing other regions. Back in July, three quarters of European companies acknowledged the need to accelerate digital transformation, especially through Cloud. Today, we see that close to 40% of European respondents are making large investments in AI and Cloud technologies.

However, companies in the US and APAC have not been waiting for European companies to catch up on technology.

### Average sustainability index and feature scores of Arabesque S-Ray© by continent (0-100) (2015-2019)

<table>
<thead>
<tr>
<th>Continent</th>
<th>Sustainability Index Score</th>
<th>Europe</th>
<th>APAC</th>
<th>United States</th>
</tr>
</thead>
<tbody>
<tr>
<td>Europe</td>
<td>58</td>
<td>56</td>
<td>46</td>
<td></td>
</tr>
<tr>
<td>APAC</td>
<td>56</td>
<td>46</td>
<td></td>
<td></td>
</tr>
<tr>
<td>United States</td>
<td>46</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


### European companies are planning to make large investments in leading-edge technologies, but they’re not alone

<table>
<thead>
<tr>
<th>Technology</th>
<th>% of European respondents</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>AI</td>
<td>40%</td>
<td>44%</td>
</tr>
<tr>
<td>Cloud Based ERP</td>
<td>37%</td>
<td>39%</td>
</tr>
<tr>
<td>5G</td>
<td>36%</td>
<td>35%</td>
</tr>
<tr>
<td>Internet of Things</td>
<td>35%</td>
<td>39%</td>
</tr>
<tr>
<td>Big Data</td>
<td>35%</td>
<td>35%</td>
</tr>
</tbody>
</table>

Source: Accenture CEO Survey, All respondents (N=4050), North America (N=1450), Europe (N=1300), APAC (N=1300)
Many companies risk missing the value play.
European companies have yet to embrace the business opportunities offered by sustainability.

Companies around the world are increasingly focusing on their sustainability agenda. Yet their motivations differ.

Consumer-facing industries face rising customer demand for action, while in other industries, motivation is more prominently driven by regulatory or investor pressures.

European companies primarily engage in sustainable practices out of personal conviction and considerable mounting environmental and societal pressures. They’re less likely than their peers to be motivated by the business opportunities presented by sustainability—such as growing revenues by launching new, sustainable products and services.

This is not the case in North America or APAC. 2

Main drivers to adopt sustainable business practices

"Acting responsibly towards the planet and society is part of our DNA. I am convinced that this is the best way for us to create superior, long-term value for Philips’ multiple stakeholders."

Frans van Houten, CEO, Philips 8

"We are one of the very few companies that integrate sustainability into their business model, which becomes most visible in the fact that we take sustainability to the product level."

Kasper Rorsted, CEO, Adidas 9

Source: Accenture CEO Survey, All respondents (N=4050), North America (N=1450), Europe (N=1300), APAC (N=1300)
And few are focusing on the power of digital technologies to drive sustainability

Sustainability and Technology topics are each discussed in earnings calls of around 50% of Europe’s largest companies*, but only 5% of companies discuss the two in conjunction.

Share of companies that discuss sustainability and technology related topics in one or multiple earnings calls each year

Since 2014, Digital has featured more prominently in earnings calls than Sustainability

Sustainability has been catching up since 2018 and is now discussed in 46% of earnings calls

The topics were only discussed in conjunction in 2% of earnings calls in 2018, rising to 5% in 2020

A higher share of APAC companies believe in the power of tech to transform their sustainable business practices.

We asked: “To what extent do you think these digital technologies will help you achieve your initiatives in adopting sustainable business practices?” (% of respondents agreeing to a great extent)

Source: Accenture analysis of earnings calls of the European companies in the 2000 largest global companies. Accenture CEO Survey, All respondents (N=4050), North America (N=1450), Europe (N=1300), APAC (N=1300)

*European largest companies in terms of revenues among the top 2000 companies worldwide.
What does the road ahead look like for new and existing Twin Transformers?
Concrete, targeted actions can help companies transform

**To set the direction**
Foster ecosystem-based business models driven by sustainability and enabled by technology.

**To start the journey**
Combine resources to scale technology applications to sustainable practices

**To deepen impact**
Create organization-wide ownership by combining financial and non-financial KPIs

**To achieve scale**
Align partners for sustainable product lifecycles and improved traceability

To sustain the transformation
**Lead, empower and nurture talent** to drive and support new sources of value.

The six most-used disruptive technology enablers

- **Digital**
  Machine learning, IoT

- **Physical**
  Robotics, Energy harvesting

- **Biological**
  Bio-based materials, Bio-energy
To set direction: Foster ecosystem-based business models driven by sustainability and enabled by technology

Sustainability-driven models can offer a major source of growth. Ecosystem plays* offer the opportunity for faster and further scaling of these business models, as well as deeper sustainability impact. Most Twin Transformers (61%) already generate more than 10% of their revenues this way and nearly 80% expect to do so in three years’ time.1

Twin Transformers take unique approaches to identifying emerging business models and defining their role within that model. They apply scenario thinking to anticipate demand for solutions that help others reduce resource use or improve safety and build trust and identify how technologies like AI and Cloud computing can enable these.

They seek gaps to fill in the circular value chains of the future and convene and orchestrate ecosystems to source ideas, test and scale their approaches.

42% of global Twin Transformers recognize the critical importance of an ecosystem business model to their future (vs. 18% for others)

Source: Accenture CEO Survey, All respondents (N=4050), North America (N=1450), Europe (N=1300), APAC (N=1300)

* Companies pursuing an ecosystems play are defined as companies that have transformed or are transforming their previously hierarchical, linear value chains into broader and much more flexible networks of strategic alliances with external stakeholders enabled by an open IT architecture

Twin Transformers are 3-years ahead
Percentage of Twin Transformers generating >10% of revenue through ecosystem plays2

<table>
<thead>
<tr>
<th></th>
<th>Twin Transformers</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-years ago</td>
<td>45%</td>
<td>23%</td>
</tr>
<tr>
<td>Today</td>
<td>61%</td>
<td>24%</td>
</tr>
<tr>
<td>In 3-years</td>
<td>79%</td>
<td>50%</td>
</tr>
</tbody>
</table>

All respondents = 4050
Examples of setting direction:

Ørsted: Think it forward

Ørsted shifted business models when it began to anticipate the rise of renewable energy. In 2009, it announced that it would flip its portfolio from being 85% ‘black’ (powered by coal, oil and gas) and 15% green (powered by renewable sources) to the reverse ratio within a generation. By 2018, 75% of Ørsted’s energy output was green. At the same time, it reported record-breaking financial results, delivering $2.3bn in operating profit.¹¹

Ørsted was the first operator of a wind farm (in 1991) and has since grown to become the largest offshore wind producer in the world. The company has installed more than 25% of the world’s offshore wind capacity.⁹ It uses advanced analytics, artificial intelligence (AI) and the cloud to optimise its offshore wind portfolio, saving time and resources and helping employees work more efficiently.

Schneider Electric: Build the ecosystem

Schneider Electric developed and convened the New Energy Opportunities (NEO) Network™—a global community and online market platform of over 300 corporate renewable energy purchasers and solution providers.

Now, Schneider Electric and Walmart are working together to use the NEO Network™ for Project Gigaton, which aims to avoid a gigaton of CO₂ emissions that would otherwise be created through Walmart’s global value chain by 2030. To date, over 2,300 suppliers from 50 countries are participating in Project Gigaton. They have already reported preventing a total of 230 million metric tons of CO₂ emissions since 2017—over 20% of the target—through more efficient use of energy, agriculture and forest resources, as well as lean/recyclable packaging, waste reduction, product use and design.¹²

Imperatives:

Integrate scenario thinking into business strategy to anticipate demand for sustainability solutions

Learn through incubator program but rapidly embed technology solutions for sustainability impact

Convene an ecosystem of partners to create, test and scale the business for societal impact
To start the journey: Combine resources to scale technology applications to sustainable practices

Stepping up investment in innovation will be critical to generating growth, especially given Europe’s historic investment gap. EU Recovery funding provides additional push for investment in innovation directed at sustainability and technology adoption.

Twin Transformers invest more in innovation across the board, with 45% investing more than 10% of their annual revenue pre-COVID-19, rising to 57% in their rebound phase over the next year.²

Twin Transformers don’t just spend more. They embrace the idea that sustainability and technology are not two separate areas to prioritize. They direct innovation investment consciously to initiatives that bring together sustainability impact and the power of technology as opposed to splitting resources between advancing sustainability and technology deployment. Some do so by earmarking a specific share of R&D investment to sustainability and technology combined. Others set up dedicated innovation entities tasked with developing, testing and scaling business ideas that deliver sustainability impact through technology.

Companies embarking on the Twin Transformation journey are conscious of environmental questions linked to greater use of technologies—like potential increases in energy demand, and they take action to minimize and mitigate negative impact, for instance through Green Cloud technology.

51% of Twin Transformers rebalance investment towards business models for positive impact (vs. 31% of others)

45% of Twin Transformers reduce the carbon footprint of IT systems and technology investments (vs. 29% of others)

Source: Accenture CEO Survey, All respondents (N=4050), North America (N=1450), Europe (N=1300), APAC (N=1300)

Twin Transformers are 2X more likely to invest more than 10% of revenues in Innovation & Tech
Pre-COVID-19 (last year) vs. Rebound (next 12-months)
share of companies allocating more than 10% of revenue on innovation (new technologies, R&D)²

All respondents = 4050

Source: Accenture CEO Survey, All respondents (N=4050), North America (N=1450), Europe (N=1300), APAC (N=1300)
Examples of starting the journey:

**Christian Hansen: R&D for positive impact**

Christian Hansen’s business strategy centers around enabling sustainable agricultural practices, good health and less food waste. In 2020, 82% of its revenue were associated with these activities.

The company will allocate 75% of R&D spending to innovative natural and microbial nutrition solutions, supported by digital technologies like AI, machine learning, digital twins and automation. It can build on successes such as SweetyR Y-1, the first patented culture that can reduce added sugar in yogurt. This innovation won the World Innovation Award for best new dairy ingredient at the 2019 Global Dairy Congress in Lisbon. 13

**Siemens: Simulating for sustainable outcomes**

Siemens is investing in simulation and digital twin technology to optimize the environmental performance of its products and services throughout the lifecycle. Digital twins not only enable products to be conceived, simulated, and manufactured faster than in the past, but also to be designed with a view to improved economy, performance, robustness or environmental compatibility. Siemens has declared simulation & digital twins to be Company Core Technology, aiming not only to benefit from applying the technology, but also making a decisive contribution to shaping it.

Siemens revenue from its Environmental Portfolio – consisting of products, systems, solutions, and services that enable energy efficiency and renewable energy – were €38.4 billion in FY2019, or 44% of the company’s total revenue. Environmental Portfolio elements installed in fiscal 2019 enabled users mitigate their GHG emissions by 48 mt of CO₂14

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**Imperatives:**

- Sustain investment in innovation and earmark resources for technology solutions with positive sustainability impact
- Convene diverse innovation teams that bring together technology and sustainability expertise
- Assess and mitigate environmental impacts of technology investments
To deepen impact: Create organization-wide ownership by combining financial and non-financial KPIs

Transformations by their very nature rely on change throughout organizations. They can only succeed when technology-enabled sustainability initiatives are deployed across departments and people at all levels feel ownership for progress.

Twin Transformers create ownership to sustainability initiatives in all departments and at all levels by assigning performance KPIs that go beyond financial results, often linked to remuneration. This ensures that opportunities for increasing positive impact or reducing negative effects are structurally considered in decision making. Examples include KPIs that relate to progress on emissions reduction, the share of products with positive societal impact and the share of resources procured from sustainable sources. Twin Transformers also measure progress systematically along multiple dimensions, tracking non-financial impacts on factors like wellbeing, the environment and consumer experience next to the value to the business. This creates a unified view of performance that allows for balanced decision making. Many have developed custom methodologies and tools to do so, to complement traditional ESG metrics with measurements of the business impact of sustainable practices.

51% of global Twin Transformers link executive compensation to environmental and social impact KPIs (vs. 29% of others)²

51% of global Twin Transformers report on non-financial performance alongside financial performance (vs. 31% of others)²

Close to half of Twin Transformers embed criteria for environmental and social impact into decision-making and compensation (% of respondents answering ‘to great extent’)²

Embed env. & social criteria into decision-making

49% Twin Transformers
29% Others

51% of global Twin Transformers report on non-financial performance alongside financial performance (vs. 31% of others)²

Source: Accenture CEO Survey, All respondents (N=4050), North America (N=1450), Europe (N=1300), APAC (N=1300)
Examples of deepening impact:

**Merck: Sustainable business value**

Merck aims to support human progress for more than one billion people through its sustainable science and technology solutions.

To measure progress, the company developed an internal process called the Sustainable Business Value methodology. This methodology quantifies all impacts in monetary terms, considering six dimensions (complementing standard ESG parameters with measures of economic value, ethics, consumer and wellbeing). A seventh dimension, digitalization, was under development as this report was written, reflecting the impact of evolving digital business models on society.15

Merck also assesses the impacts of its products with the award-winning web-based tool DOZN™, covering resource use, energy efficiency and human and environmental hazards.

**Kering: Environmental P&L**

Kering measures and quantifies its environmental impact through an Environmental Profit & Loss (EP&L) account.14 The EP&L enables the shift to a sustainable business model by making environmental impacts visible, quantifiable and comparable. These impacts are then converted into monetary values to inform decision making.

With the EP&L, Kering aims to set a new standard share in its industry. Through a digital platform and tool, it provides access to unprecedented open data behind the EP&L. It also convenes Hackathons with developers, tech experts and sustainability specialists to create a new generation of apps and digital solutions to reduce the impact of fashion on the environment. All of this aims to raise the standard in the luxury and fashion industry.16

**Imperatives:**

Assign ownership and accountability through KPIs related to non-financial performance

Adapt frameworks for decision making (e.g. business cases) to include non-financial criteria

Systematically measure progress in multiple financial & non-financial dimensions
To achieve scale: Align partners for sustainable product lifecycles and improved traceability

Many sustainability impacts run across organizational boundaries. Equally, opportunities for positive impact can only be realized through concerted efforts of multiple partners.

Initiatives to create circular supply chains for instance, require investment to recover and recycle materials at the end of the lifetime, as well as investment in creating demand for secondary resources in production. However, one investment is only viable with the other. Success depends on multiple parties coordinating their efforts on both ends of the value chain.

Twin Transformers that have worked to optimize sustainability of their own business activities and want to take the next step often run into challenges in aligning supply chain partners behind their efforts. Twin Transformers therefore actively engage suppliers in their sustainability journey by embedding relevant criteria into screening criteria and offering training to raise the sustainability of the overall value chain.

Twin Transformers also collaborate with partners in the supply chain to raise visibility and traceability of resources and products, using blockchain technology and digital sourcing platforms. This not only creates a launchpad for new circular business models, it also builds trust by helping customers understand the provenance of what they buy.

#1 Barrier to sustainability efforts mentioned by global Twin Transformers is difficulty of extending strategy throughout the supply chain.

Source: Accenture CEO Survey, All respondents (N=4050), North America (N=1450), Europe (N=1300), APAC (N=1300)
Examples of achieving scale:

**L’Oréal: Trace and certify content**

In partnership with their suppliers L’Oréal has launched an ambitious traceability program from source materials to product. For example, 100% of the palm oil the company uses is now certified by a very demanding RSPO traceability model.

To measure performance, L’Oréal has designed the Sustainable Palm Oil and Traceability (SPOT) tool to evaluate the environmental and social performance of all its products. It quantifies every aspect of the product lifecycle and tracks progress on four areas of improvement: the packaging, the footprint of the formula, the sourcing of the ingredients and the social benefit of the product. By doing so, it helps simulate diverse design options in order to assess their impact on the environment and society and identify potential opportunities for improvement.17

In addition, L’Oréal is working with NGOs to help independent smallholders connect with market demand, and is supporting them by purchasing what they produce to stimulate sustainable practices.

**Deutsche Post DHL: Offer transparency**

To help consumers opt for low-carbon shipping, Deutsche Post DHL Group has developed the GoGreen Carbon Dashboard. Through this dashboard, companies using logistics services can view analyses of carbon emissions associated with their shipments, mapping emissions across their supply chain. The resulting transparency allows users to benchmark and set targets, identify carbon contributors and develop reduction strategies.18

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**Imperatives:**

Engage suppliers to raise sustainable practices through screening as well as capacity building

Create technology solutions to trace resources and products along the value chain, working with ecosystem partners

Build tools and channels that offer transparency to consumers about the provenance of what they buy
To sustain the transformation: Lead, empower and nurture talent

Transformations are shaped by people at the beginning of the journey. Perhaps even more so when companies start scaling and the business model’s success no longer rests on a few passionate individuals, but by people in all departments and at all levels.

Twin Transformers are more acutely aware of the importance of the human factor of transformation—and more worried about their ability to get it right—than others. More than half cite the human aspect of change as a potential barrier, compared to less than a quarter of other companies. Twin Transformers also told us that they experience difficulties accessing the right knowledge and talent for their transformation.

As a result, Twin Transformers put more focus on building and nurturing talent than others. They are more likely to take responsibility for the continued employability of their people: 61% of Twin Transformers globally recognize that they are responsible for workers’ continued employability, compared to 44% of others. So, how do they act on this front? Applying analytics to listen and understand the needs of their people and establishing training programs accordingly, for example in developing digital fluency.

Twin Transformers are more likely to have assigned ownership of the sustainability agenda to the CEO, ensuring consistent focus on the topic in the core business as well as a clear direction for people to rally behind.

51% of European Twin Transformers recognize human aspect of change as a potential barrier to digital transformation (vs. 22% of others).

43% of CEOs of global Twin Transformers lead the sustainability agenda (vs. 30% of CEOs of others).

More than half of Twin Transformers recognize the responsibility of their organization towards their workforce. (% completely responsible for employability)²

61% Twin Transformers
44% Others

Source: Accenture CEO Survey, All respondents (N=4050), North America (N=1450), Europe (N=1300), APAC (N=1300)
Examples of sustaining the transformation:

**Oxford Medical Simulation: Training for digital fluency**  
Extended reality

Oxford Medical Simulation put into place a platform where trainees can engage with comatose patients using either virtual reality headsets or standard computers. They manage the patient as they would in real life, diagnosing and treating them, while interacting with others on a team. It has also offered a free medical training system during the COVID-19 pandemic to help hospitals and medical schools facilitate digital training for retired doctors and nurses who have returned to the workforce to help meet the demand for patient care.19

**ABN AMRO: Listen and learn**  
Advanced analytics

ABN AMRO leverages people analytics with different surveys to study behavioral drivers, better understand different employees’ needs and help HR monitor the effects of the supports they develop as a result. And the target for these surveys? New joiners, who are asked to download an app and answer questions including “To what extent is it clear what is expected of you?” 20

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**Imperatives:**

Establish programs for continuous learning to help your people build digital fluency

Listen to the changing needs of your people through combinations of human and technology-enabled channels

Secure top leadership commitment to inspire the workforce for the transformation agenda
A bold new path forward

Europe’s business leaders have a great opportunity before them, but they need to move boldly and at speed to seize it. Currently, they stand at risk of missing the value play—and with it, the potential to shape the outlines of the post-pandemic world.

This opportunity calls for diverging from well-trodden strategic and operational paths. It requires commitment to advanced technologies and to innovations applied with purpose to enable sustainability solutions—traditional European strengths. It also requires confidence in the power of ecosystems to effect positive competitive and social/environmental change.

Early Twin Transformers have proven that the intersection of digital and sustainability holds great value, not only in terms of accelerating recovery from the economic effects of the pandemic, but also in terms of positioning for future growth.

It’s time for Europe to seize this opening to resilience, competitiveness and a healthier future.
Methodological Appendix
About the survey

We interviewed **4051 C-suite executives** from 19 industries and more than 13 countries via online surveys in November 2020. Each interview took 30- minutes.

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<td>Automotive</td>
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<td>Software &amp; Platforms</td>
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<td>8%</td>
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<td>4%</td>
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<td><strong>Total</strong></td>
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<td><strong>100%</strong></td>
<td><strong>1,301</strong></td>
<td><strong>100%</strong></td>
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Definition of Tomorrow’s Leaders

Methodology
• Based on our CXO survey, we have analyzed companies’ financial performance and outlook with two key financial indicators: year-on-year revenue growth and operating margin (EBIT) during four different phases of the crisis:
  • Pre-COVID-19 corresponding to the average level in the past 3-years
  • Fragility phase corresponding to the past 6-months
  • Resilience phase corresponding to the next 6-months
  • Rebound phase corresponding to the next 12-months
• We have computed the operating profit for each company in our survey during these phases. By analyzing the evolution of this indicator over time we are able to identify companies that are more resilient to the crisis and expect to rebound stronger in the near future.

Tomorrow’s Leaders
1. Companies who have positive operating profit from Fragility phase to Rebound phase, with stable or improved operating profit between each phase.
2. Companies that suffered profit loss during the Fragility phase but managed to recover from the crisis; companies with positive operating profit since the Resilience phase; increased operating profit during the Resilience phase; and a stable or improved operating profit during Rebound phase.

Within Tomorrow’s Leaders, we further define three subsegments:
• Industry boost: Tomorrow’s Leaders in industries boosted by the crisis, defined as Health, Life Sciences, Communication & Media, Software & Platform and Insurance. These industries are less impacted from the crisis and their industry performance is more homogenous than others.
• Resilient performer: Tomorrow’s Leaders with strong pre-COVID-19 performance, identified as having either >5% revenue growth or >5% operating margin.
• Reinventor: Tomorrow’s Leaders without strong pre-COVID-19 performance.

Among others, we also define a subsegment called Falling Angels:
• Companies who had strong pre-COVID-19 performance but expect to have negative revenue growth or negative operating margin in the next 12-months.

<table>
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<tr>
<th>Conditions for Tomorrow’s Leaders</th>
<th>Pre-COVID-19</th>
<th>Fragility</th>
<th>Resilience</th>
<th>Rebound</th>
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<td>1. Change in operating profit compared to previous phase</td>
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<tr>
<td>2. Operating profit ($)</td>
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<td>&gt;0</td>
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<td>2. Change in operating profit compared to previous phase</td>
<td>-</td>
<td>&lt;0</td>
<td>&gt;0</td>
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</table>
Definition of Pioneers and Twin Transformers

Methodology

- Based on our CXO survey, we have built two scores to measure companies’ maturity in sustainable practices and their adoption in technologies, respectively.
- The **sustainability score** has two components: the first measures the **extent and maturity of a company’s sustainable practices**, which considers the stages in which the company is engaged in each initiative (Not started, Early stages, Pilot to scale, Scaled) and its level of priority (Minimal, Moderate, High). The score also takes into account the type of the initiative in the sustainable maturity level (Optimization, Incorporation and Transformation). A higher weighting is given to Incorporation than Optimization, and Transformation has the highest weighting. The second component measures **how a company uses different measures to support its sustainable practice**. Different elements are categorized in three maturity levels (Optimization, Incorporation and Transformation) with the same weighting system for sustainable initiatives.
- The **technology score** measures the **maturity of technology adoption** of a company, by measuring the stage in which the company is developing or adopting each technology (Not started, Early stages, Pilot to scale, Scaled) and its level of investment (Minimal, Moderate, High). The score also considers **how edgy each technology is**—Those with fewer leaders are given a higher weighting.
- **Identifying Pioneers and Twin Transformers**: We look at the top quantile for each score and label them as **Pioneers** in sustainability and technology respectively. Companies at the intersection of both lists are labeled as **Twin Transformers**.
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References

1 OECD December 2020 Economic outlook [https://www.oecd.org/economic-outlook/]
2 Accenture CEO Survey, All respondents (N=4050), North America (N=1450), Europe (N=1300), APAC (N=1300)
3 Accenture Bold Moves, July 2020
4 Schneider Electric Sustainability Report 2019-2020
5 Accenture Research analysis of earning calls of largest 2000 companies in terms of revenues
7 Arabesque S-Ray©, 2020
8 Philips, Doing Business responsibly and sustainably
9 Adidas, Sustainability Progress Report 2016, 2017
11 Orsted, Orsted Business transformation
12 Schneider Electric, Renewables Now
13 Christian Hansen, Christian Hansen 2025 Strategy
14 Siemens, Siemens Digital Twin
16 Kering, Kering Environmental Profit & Loss
17 L’Oréal, Achieving zero deforestation
18 Deutsche Post DHL, DHL Sustainability Report 2019
19 Oxford Medical Simulation, Helping you transform healthcare training
20 ABN AMRO, Employee Experience 2020
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