accenture

Europe's new dawn

Reinventing industry for future competitiveness

No crisis is forever.

This can be difficult to remember when you're right in the middle of one, but that's exactly when you must endeavor to divide your focus between the challenges at hand and your long-term vision. The former will help you survive the present; the latter will empower you to win the future.

European industries have been hit as hard by the COVID-19 pandemic as the rest of the world but are nonetheless on the precipice of thriving. They can do it by building on their strengths while doing the hard work of addressing their weaknesses.

Indeed, one of the few silver linings of the pandemic was that it put companies' strengths and weaknesses into sharp relief. For instance, European industries' leadership on sustainability shined, while their digital adoption efforts often fell behind those of their global peers.

So now what?

This is where the long-term vision comes in: European companies must pursue plans to maintain their leadership in strengths such as sustainability, build roadmaps for digital acceleration and collaborate with partners beyond their own industry silos because innovation and massive growth opportunities reside at the cross-industry level. Most importantly, they must take more responsibility for their people's needs, in terms of skills and well-being, as no success can be achieved without the right talents. Some industries are already well on their way to doing so; others would need to reinvent themselves.

In this report, we have identified where specific European industries fall in relation to their U.S. and Asian peers with respect to competitiveness and their post-pandemic recovery. We have delineated the opportunities that they can use to their advantage and developed key recommendations to help them reach their full potential. And, working closely with our partners at BUSINESSEUROPE, we've outlined public policy initiatives that can best support their efforts.

With the right actions and vision, the post-pandemic future is winnable. It's time for European industries to secure that victory.

Jean Marc Ollagnier
CEO, Europe, Accenture

The COVID crisis has shown, once again, that having a strong industry is crucial.

European companies recover from the crisis and, at the same time, reinvent themselves for a post-pandemic future. They must be supported in their efforts to build the foundation of future growth and employment.

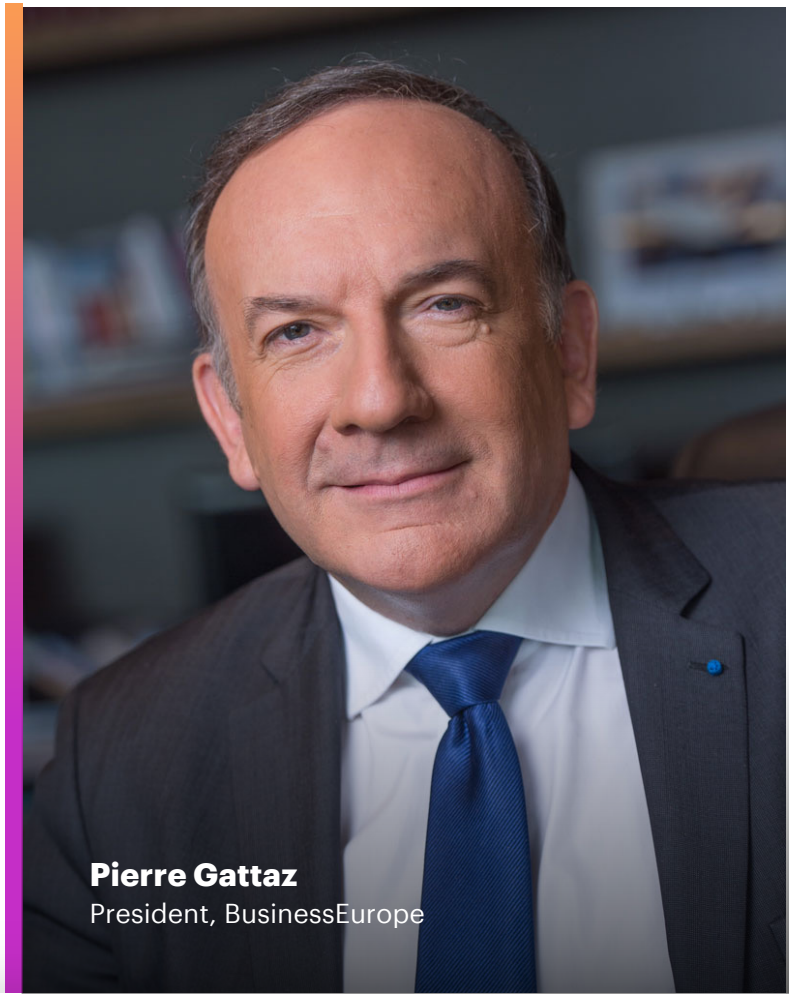
There are many ways in which the European Union and its member states can give businesses a helping hand for digitalization, sustainability and workforce training, three pillars to be successful in tomorrow's global economy.

The European and its member states can put in place business- and innovation-friendly regulation. They can fund initial research, emerging technologies and infrastructure. They can improve education and training. They can engage in public-private partnerships for innovation. They can foster collaboration among academic institutions, entrepreneurs and venture capital through innovation hubs. They can facilitate rapid scaling up of start-ups, etc.

Europe's industrial strategy offers a promising framework to better coordinate national policies. It must be backed by determined action to further develop our Single Market and to open up new market opportunities through the common European trade policy.

Dialogue among government and entrepreneurs must be at the center of Europe's industrial strategy. It is up to companies to speed up their transformation and it is up to European policy-makers to ensure they're helping them to accelerate their pace, not slowing it down.

Companies need an innovative European Union and the European Union needs innovative companies.



Pierre Gattaz
President, BusinessEurope

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A high-potential growth paradigm is taking shape . . .

Pre-pandemic, large European companies were keeping up with US and Chinese competitors in most industries. Then COVID-19 dealt its global blow. And now, as economies focus on recovery, we see companies in China and the US anticipating faster recoveries than their European peers, with Europe falling behind in key sectors such as Tech and Software & Platforms—digital economy fundamentals. In these domains, clearly, Europe needs a reset.

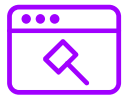
It will take more than a return to pre-pandemic growth trajectories and strategies, however, to lead in the post-pandemic world. As pandemic effects continue, a new paradigm for growth leadership is emerging—one that European companies are well positioned to leverage.

Consider: This new paradigm is built on business resilience, regionalization, and emerging industries in the areas of Smart Manufacturing, Digital Health, Smart Mobility and Energy Transition—areas where Europe is already investing heavily. It also relies on blending digital acceleration and sustainability efforts; while European companies trail on digital adoption, they have long led on sustainability.

This emerging approach to growth leadership can power the much-needed reboot for certain European industries, opening opportunities for them to move ahead of global peers. It can also clear new paths to competitive advantages as industries converge. And in doing so, it can foster widespread net job creation.

. . . one that Europe can leverage with swift and decisive actions.

The key to leveraging this growth paradigm will be European companies' swift actions—with support from EU institutions and European governments—to:



ECOSYSTEMS: Build the ecosystems needed to power innovation and delivery in high-potential and industry-convergence growth areas, such as Smart Manufacturing, Digital Health, and Energy Transition by tapping the expertise of the startup and academic communities to build new industry leaders.

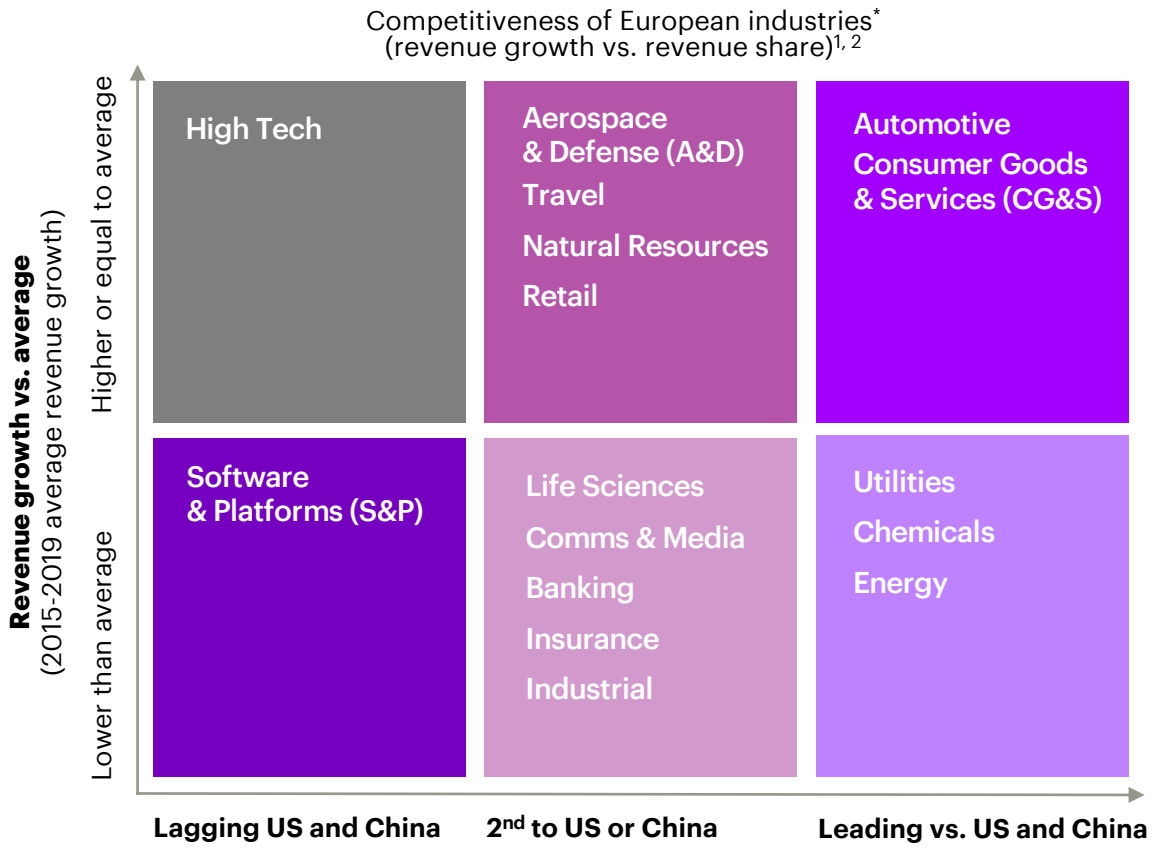
TWIN TRANSFORMATION: Create value at the intersection of sustainability and digital adoption by blending the two (undertaking what we call a Twin Transformation). This will include accelerated investments in emerging technologies, with an emphasis on Artificial Intelligence, 5G, Hybrid Cloud and Clean Hydrogen.

WORKFORCE RESKILLING: Engage in workforce reskilling to sustain these efforts and to support continued employment growth, for example by drawing from and building on STEM development, life-long learning programs, and industry specific training.

The challenges associated with each action are considerable. But the 700 European business leaders who participated in Accenture's recent study are confident that new global industry leaders can emerge from Europe, supported by EU institutions and European governments with dialogue and collaboration at the core of a new industrial policy.


COVID-19 is testing the resilience
of companies around the world;
European businesses are no exception.

Pre-pandemic, most European industries held their ground in terms of market position versus China and US peers. Now, Europe is facing significant challenges in Technology and Software.



Source: Accenture Research based on Capital IQ. For Insurance, data from Swiss Re, sigma World Insurance reports
*Industries: Covers a broad range of industry sectors in Europe. See page 50.

Among a group of 4400+ companies in Europe, US and China with revenues higher than $1bn in FY2019

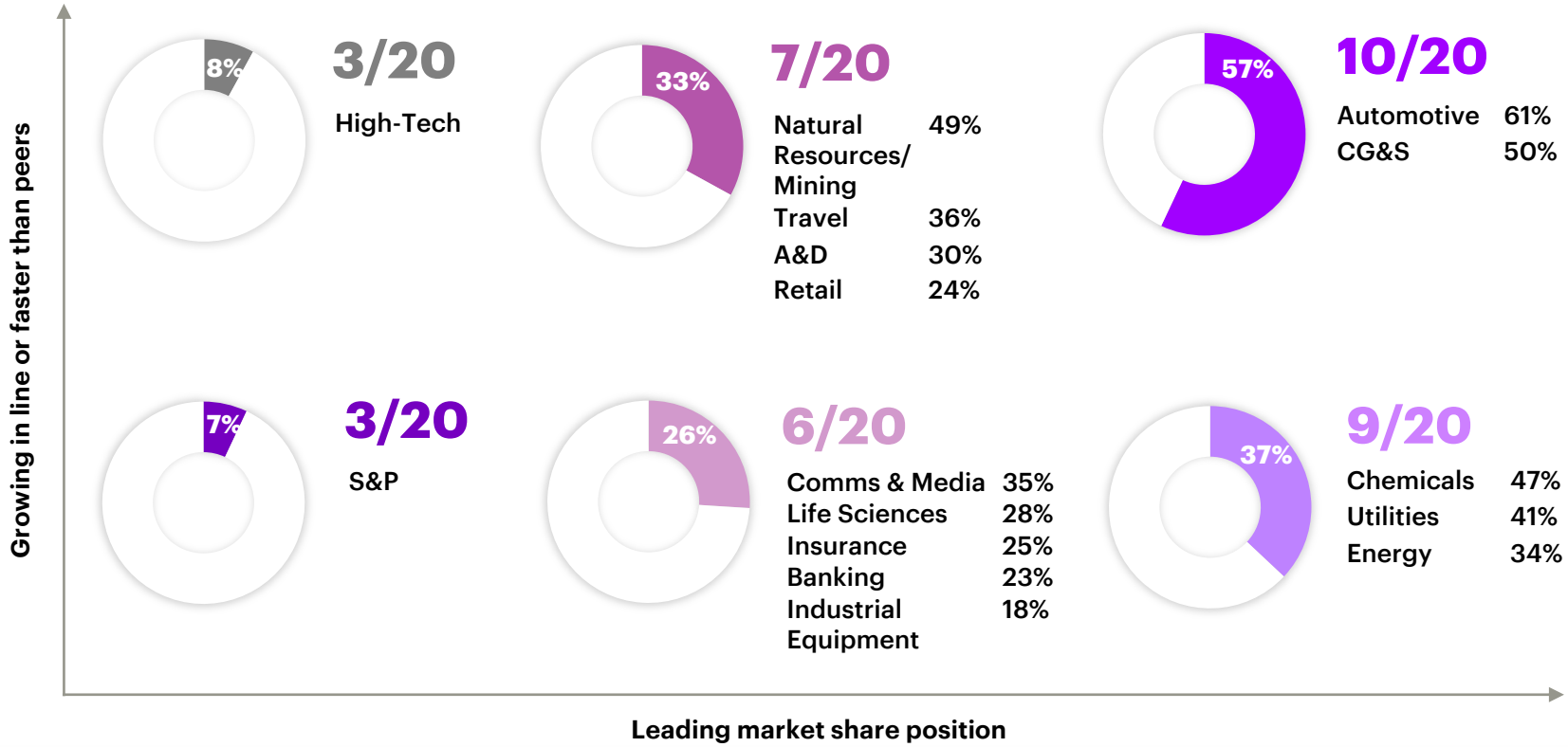
39%
are European companies

35%
of their revenue is generated by large European companies, very much aligned with EU28 share of GDP

Nonetheless, European companies are well represented in the top segments in all industries.

European companies hold more than a quarter of leading positions in every industry but Technology and Software

% market share of European companies in the **top 20** in each industry in FY2019[1, 3]
Number/20: average **number** of European companies in the **top 20** of each industry in FY2019[1, 3]

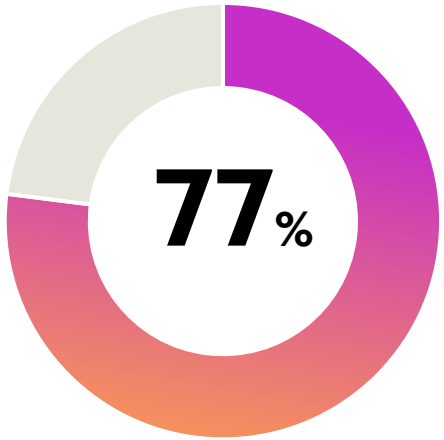


Source: Accenture Research based on Capital IQ. For Insurance, data from A.M. Best's Global Insurance Database

- European companies can be found among the leading 20 companies in all industries.
- European companies have the strongest leadership position in Automotive and Consumer Goods & Services, making up more than half of the top companies and revenue generators in these industries.
- In the middle ground, European players retain an important place in the market, with a good number of strong competitive leaders.
- In the tech sectors, European players are less represented among the leaders, and they have a relatively small market share.

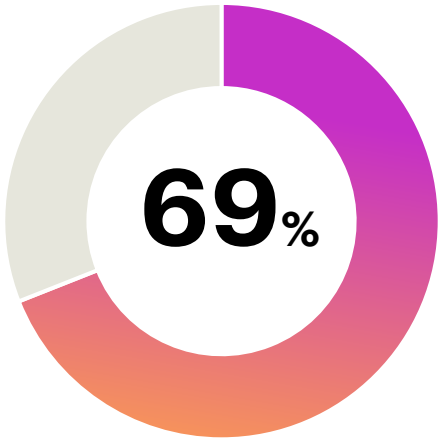
Hopes are high across Europe for economic recovery, with strong growth prospects expected in the next two years.

Just above 3 out of 4 European business leaders are confident about their company's economic growth prospects in next 2 years[4]



France (81%)
Germany (80%)
Nordics (80%)

And a majority is also confident about Europe's economic growth prospects in next 3 years[4]



Germany (79%)
UK (71%)

Source: Accenture Research quantitative survey. All respondents (N= 700)

Recent developments in the fight against COVID-19, including vaccine roll-out, have spurred rising confidence across Europe for economic recovery.

Global economic institutions and analysts have a positive outlook; the European economy is projected to grow 4.2% in 2021 and 3.6% in 2022. These projections follow a severe contraction in 2020 (-7.2%).[5]

Accenture's February-March 2021 survey of C-level executives representing 700 large, European companies found that a majority are strongly confident about their company's economic growth in the next two years. C-levels in Pharma are the most confident (with 92% expressing confidence), and those in Travel, Communications and Media, are the least, at 68% and 70% respectively.[4]

These executives also anticipate recovery and growth across Europe in the next three years.

However, this positive outlook contrasts with their short-term view, given the various challenges currently facing many companies and industries. There is a clear need for European companies to move at speed to embrace new paths to growth.

The pandemic crisis has been Europe's largest economic shock since WWII. In a best-case scenario, European companies on average are expected to get back to their pre-COVID-19 profit levels by mid 2022.

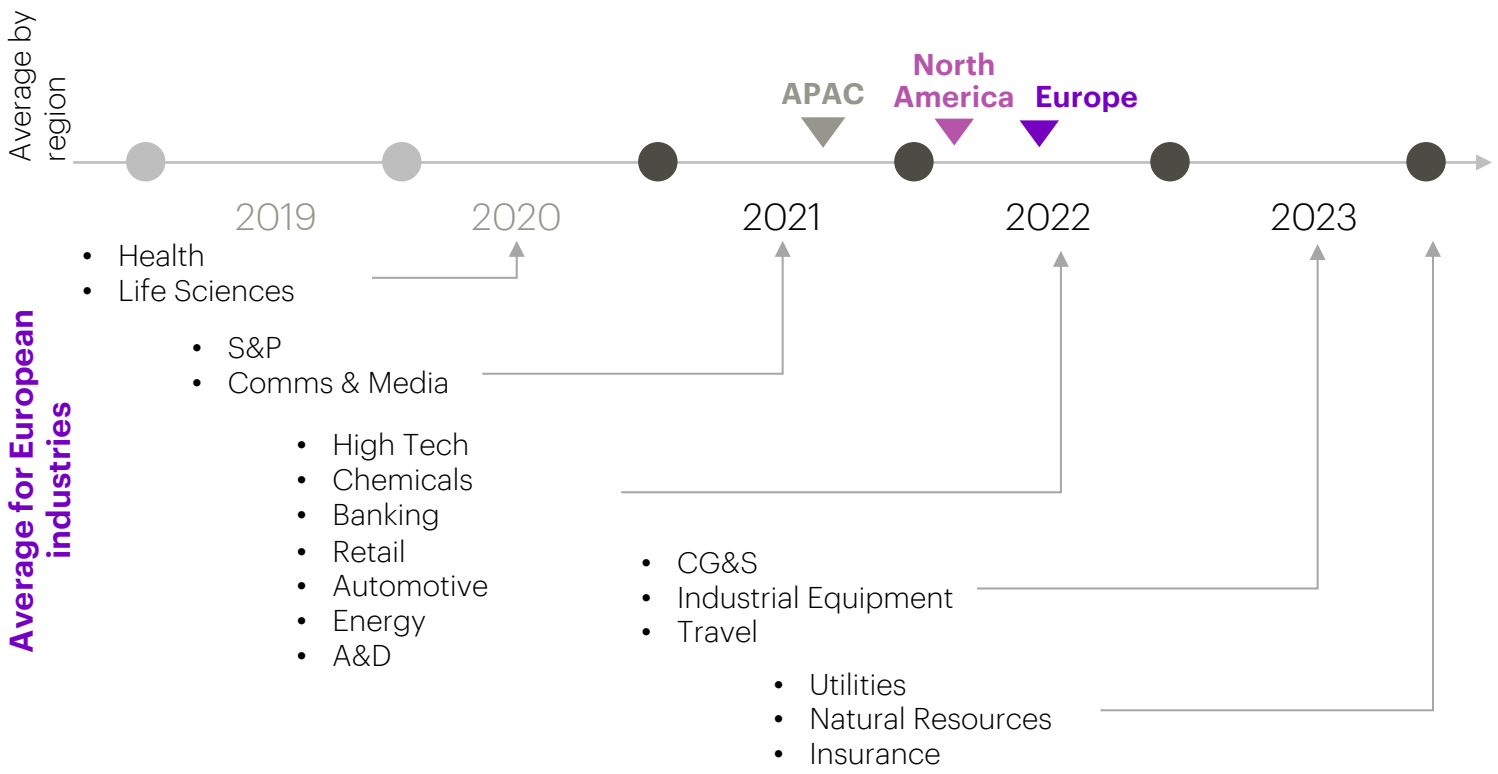
Meanwhile, anticipated recovery rates are faster in APAC (before the end of 2021) and in North America (early 2022).

Large European companies in Pharmaceuticals, Health, Software & Platforms and Communication and Media industries are recovering rapidly (or have even seen growth and profit increases due to the pandemic). However, large European companies in other sectors face headwinds.

However, even anticipated rebounds place many European companies behind global peers.

On average, European companies may rebound to pre-COVID profit level by mid 2022

Average time to return to pre COVID profit level, by region and by industry in Europe[6]

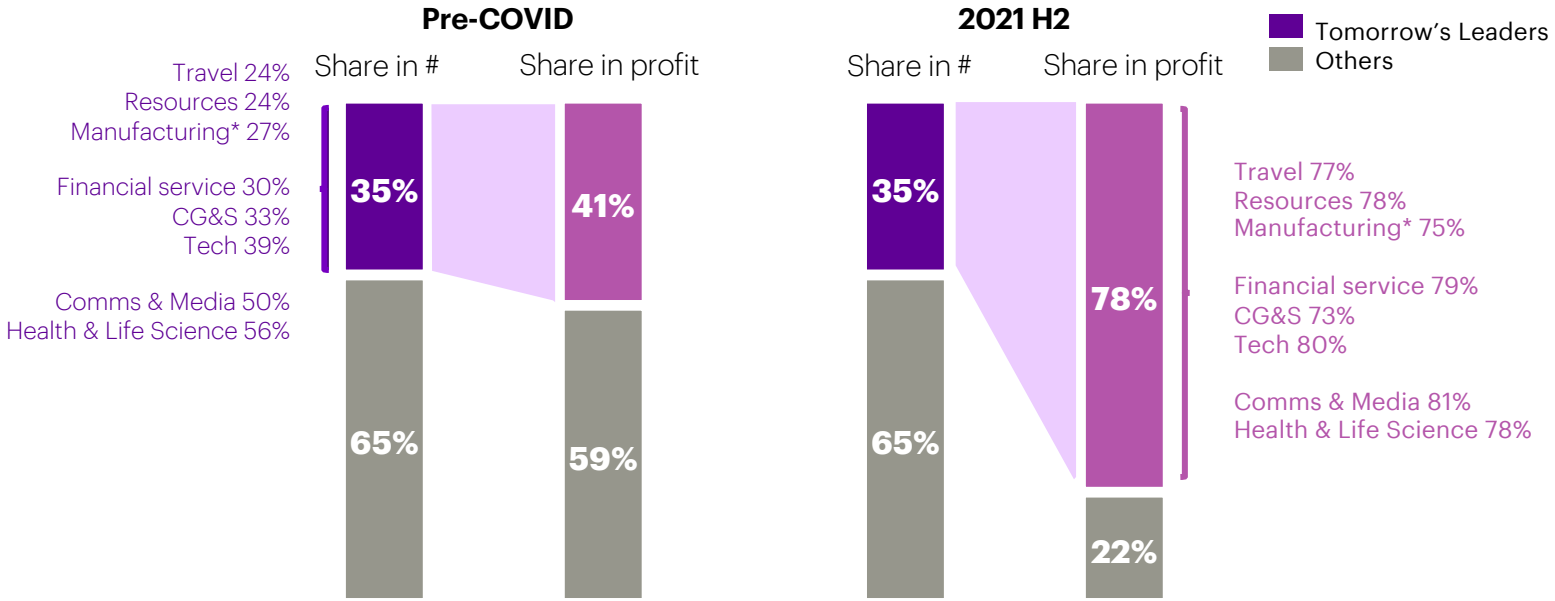


Source: Accenture CXO survey, All respondents (N=4050), North America (N=1450), Europe (N=1300), APAC (N=1300)

Fierce competition will result in outsized rewards for the most resilient companies.

"Tomorrow's Leaders" represent 35% of all companies globally but are expected to generate up to 78% of total profit by the end of 2021

Tomorrow's leaders in count share and profit share during pre-Covid and by the end of 2021[6].



European companies are slightly under-represented in terms of
- Share in number within tomorrow's leader group (29% vs. 32% in the global sample)
- Share of profit in tomorrow's leader group in 2021 H2 (28% vs. 30% in the global sample)

Source: Accenture CXO survey, All respondents (N=4050), North America (N=1450), Europe (N=1300), APAC (N=1300), see appendix for detailed methodology for Tomorrow's Leaders
* Manufacturing sector includes Aerospace and Defense, Industrial Equipment and Automotive industries

- A small group of companies will reap most of the profits within the next 12 months.
- In fact, Accenture's recent report, "The European Double Up," identified a group of businesses—"Tomorrow's Leaders"—that are on track to deliver profitable growth in 2021.[7]
- These businesses represent 35% of the large companies we have analyzed globally from our CXO survey and in 12 months they are projected to claim 78% of the profits, versus 41% before the start of the pandemic.[6]
- To date, European companies are under-represented among Tomorrow's Leaders versus their North American and APAC peers.
- In industries most impacted by the pandemic, such as Travel, Manufacturing, and resources-related sectors, the profit concentration is expected to be even more extreme.


A new paradigm for growth leadership opens opportunities for European companies and industries.

Elements of this new growth leadership model include resilience, regionalization, industry convergence, digital acceleration, and sustainability.

Resilience

Regionalization

Industry convergence

Digital acceleration

Sustainability

Resilience is both an input and an outcome. Its components, which include decision-making agility, strategic flexibility, adaptive talent, and investment capacity geared towards innovation, have proven critical to business survival during the pandemic in many industries. Critically, strengthening these qualities will remain high on C-level agendas as they strive to better prepare for future, as-yet-unknown crises.

Regions matter. Pre-pandemic geopolitical tensions already set the global economy on a path to deglobalization and the adoption of more regional or national economic policy. The crisis further emphasized supply-chain resilience and strategic materials dependency as issues. The debate on the level of national versus regional versus global integration will continue in the next decade.

To fulfill customers' expectations of meaningful experiences, companies need to move away from vertical integration to ecosystem-based business models that cross industries—blurring boundaries and innovating continuously through these new relationships.

With the rise of Digital tech in the 2010s, we saw tech companies claim the top 5 market caps in 2019.[8] (Contrast that with 1995, when no tech company made the top 5.) Now, all companies either are or are becoming digital and tech companies.

Sustainability is the new Digital. Consumers, employees, and even investors are increasingly considering companies' environmental footprints when making business decisions. Meanwhile, states and regulators around the world are implementing new standards that will affect companies' sustainability journeys.

These elements can play to Europe's strengths, leading to rewarding outcomes.

Resilience

Regionalization

Industry convergence

Digital acceleration

Sustainability

- On average European companies are slower than peers to rebound from the pandemic. Still, Europe has 32% of Tomorrow's Leaders, and these companies are driving the region's recovery and positioning for future growth.[7]
- The response to the pandemic may indicate a new era of economic cooperation among European countries, collectively as part of the EU.
- Many European leaders have already broadened their horizons through increased collaboration and growing ecosystems. They are also exploring how to collaborate to build and scale supporting infrastructure across the EU.
- While Europe has trailed the US and China in digital adoption in the past decade, we see ambitious plans to accelerate. The EU expects to double the number of unicorns, with 75% of EU companies using Cloud/AI/Big Data, by 2030.[9] European C-levels have clearly set digital acceleration as a top priority.[7]
- European C-levels are leading the pack: 58% of C-levels agree that pursuing their sustainability transformation is key to remain competitive, and 1 out of 2 of the most sustainable companies globally are European.[10]

Potential outcomes for Europe

- Industry reboots
- New high-growth cross-industry plays
- Net job creation

R&D investments will signal readiness and commitment to innovation. Europe needs to remain in the race.

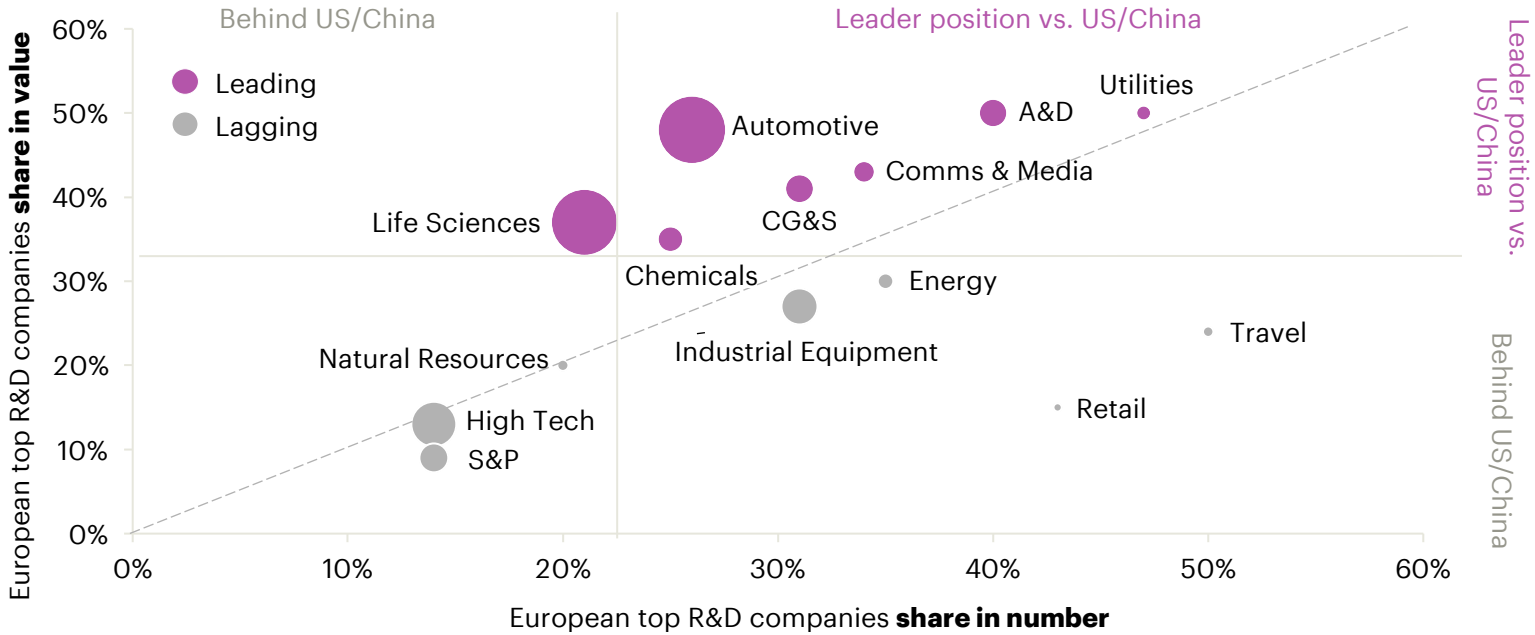
Large European companies investing in the future

Among the 2500 global top R&D spending companies in 2019

24% are European companies (vs. 31% US, 21% China)

28% of the R&D spending comes from European companies (vs. 38% US, 13% China)

European companies R&D investment vs. Global peers in number and value share in 2019[11]



Source: 2020 EU Industrial R&D Investment Scoreboard, Financial services companies have been excluded from the chart due to partial available information

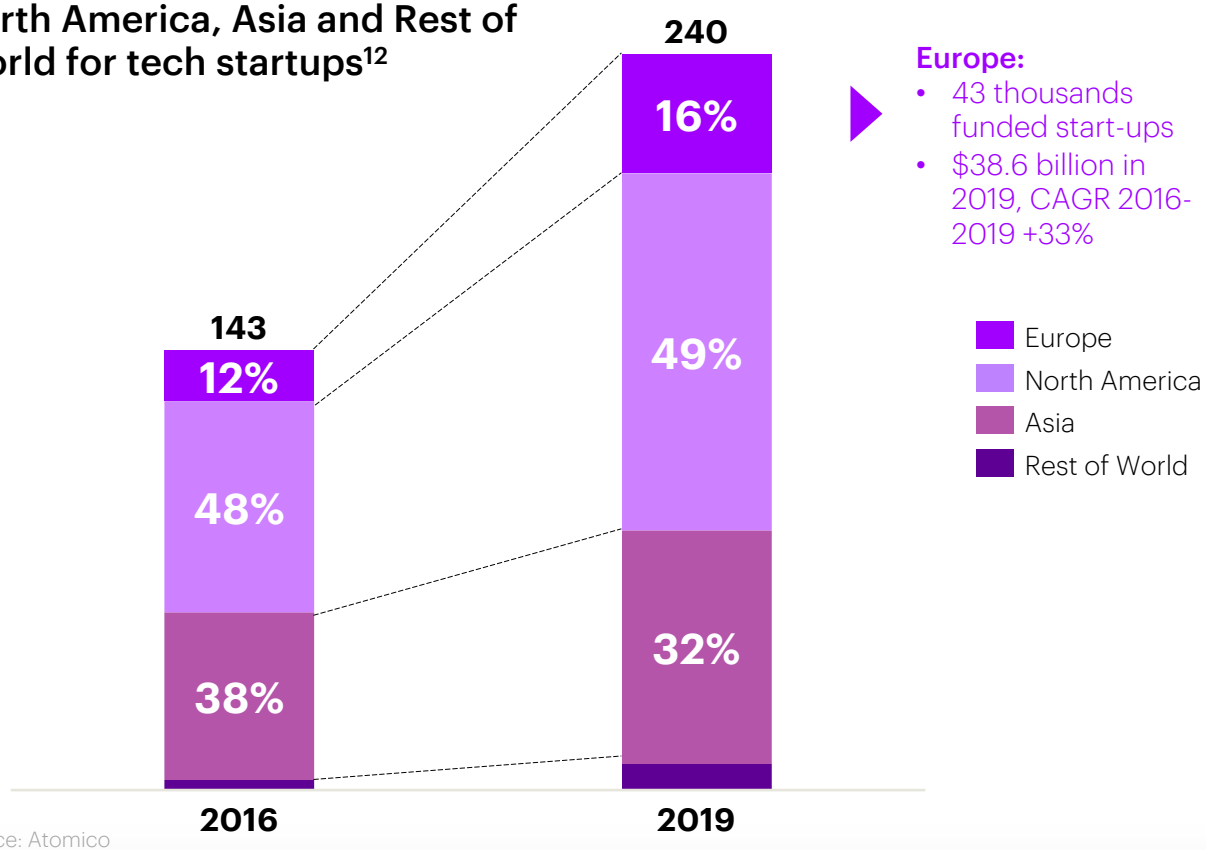
The innovations of tomorrow will be driven by digitalization and sustainability. Advanced digital technology developments are emerging quickly in software, AI and quantum computing. Green technology innovations are similarly on the rise, with Energy-related sectors, Automotive and Aerospace & Defense holding an important share of green patents.

On average, European companies are maintaining their presence in this innovation competition, with 24% of the top 2500 R&D companies contributing to 28% of their R&D investment.[11] But competition has been tough as Europe has lost ground in the past decade, especially against China: In 2013, Europe was co-leading with the US, with 35% of R&D spending. At the time, just 4% of R&D spending came from China.

At the industry level, European companies still remain strong in innovation in Aerospace & Defense and Automotive. European companies in Energy, Industrial Equipment and Tech industries need to accelerate to catch up to global peers.

And the same is true in the start-ups tech sector.

Capital invested ($B) in Europe, North America, Asia and Rest of World for tech startups[12]



Europe:
- 43 thousands funded start-ups
- $38.6 billion in 2019, CAGR 2016-2019 +33%

Source: Atomico

Europe has seen meaningful growth among start-ups in the tech sector.

In fact, Europe has seen an over 30% increase in the annual investment in start-ups in the past few years.

By 2019, there were more than 43 thousand funded start-ups in Europe, which raised over €38Bn in investment capital.[12]

Investment into purpose-driven start-ups is also growing, echoing the future trend in blending technology and sustainability: Investors provided more than $20B to purpose-driven tech companies over the last five years across more than 3,000 rounds. Of total capital invested in European tech companies, 17% went to purpose-driven start-ups.[12]

Yet those figures remain far behind the United States, which has more than twice as many start-ups, benefitting from 3 times more funding.

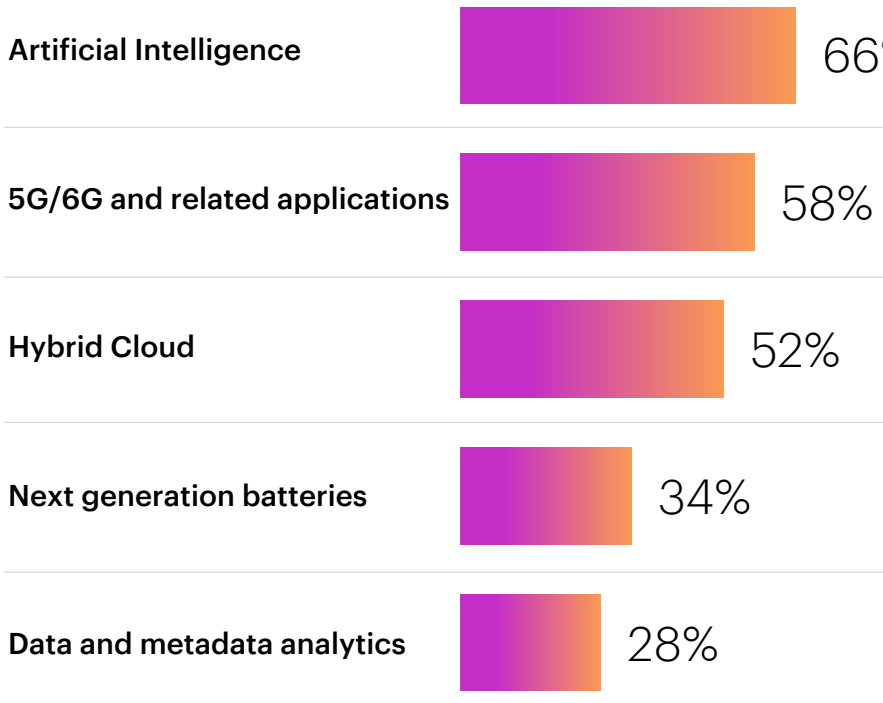
Investments in 5 key technologies are essential to building tomorrow's industry champions.

In order to create Industry Leaders of the future, Europe will need to significantly accelerate investment in technologies.

A majority of the C-levels we surveyed agree: The focus should be on AI (66%), 5G/6G (58%) and Hybrid Cloud (52%). Edge is not coming out in the top 5 yet (21%) but is on track to do so as smart manufacturing picks up. It's already in the top 5 for A&D executives (43%).[4]

On the sustainability side, next-gen batteries (34%) are especially important in the Automotive (50%) and Energy/Utilities sectors (48%). Biotech is critical for 57% of respondents in Pharma/Health.[4]

C-Levels identified 5 key technologies Europe should invest in to be a leader in the future[4]:



Most represented Industries

A&D	Pharma, Health
CG&S	Energy & Utilities
Banking/ Insurance	Comms & Media
Automotive	Energy & Utilities
Retail	Banking/ Insurance

Source: Accenture Research quantitative survey, All respondents (N=700)

The road ahead varies for European industries, with Tech and S&P facing the longest journeys.

	Top of their game	Strong potential	Potential if scaled	Due for a reset
Industries	Strong leader position and innovating for the future Automotive Consumer Goods & Services Utilities/Chemicals	Strong potential to become leaders Aerospace & Defense Life Sciences Comms & Media Energy/Natural Resources/Mining	Strong ecosystem plays can help in navigating fragmented markets Retail Travel Banking/Insurance Industrial Equipment	Start-ups could power a European resurgence in each industry High Tech Software & Platform
Common characteristics	• Held strong market position pre-pandemic • Demonstrate resilience and make significant innovation (R&D) investments	• On average, were second to U.S. or China during the pre-pandemic period • Some companies rank as among the top 20 champions in their industries • Invest strongly in R&D	• Relatively few global leading players due to market fragmentation • Lower R&D investments, risking less future innovation	• Very few leading players at the top of market share • Lag peers' R&D investments • Better momentum in High Tech than Software & Platforms
Points of attention	• Digital and sustainability transformations are high on the agenda but still moving too slowly. • Companies need to boost R&D to enable transformation at speed.	• A&D, Life Sciences and C&M are leading in digital transformation. • R&D needs a boost to power sustainability transitions. • Energy and Natural Resources had a slow start on innovation, but companies' post-pandemic plans suggest an acceleration in both dimensions.	• The strong pandemic impact on Retail, Travel and Industrial is delaying the European rebound compared to Chinese and US peers. • For all, speeding both digital and sustainability transition is key, but the aspiration is not yet realized.	• Growing momentum in the start-ups field, paired with a focus on the newest technologies, could help build the next wave of champions.

European C-levels see five emerging cross industry opportunities with marked growth potential.

- A majority of the 700 European business leaders in our survey see smart manufacturing, digital health, smart mobility, low-CO2 emission industries, and clean hydrogen technologies and systems as top opportunities for future European growth and leadership.
- These domains are at the cross-roads of converging industries, powered by new technologies and requiring new ecosystem-based business models.
- Existing European champions and many European start-ups are focusing on these areas, which are indeed expected to achieve double-digit percentage growth. Europe and European governments' investments and favorable policies, as well as the readiness of European citizens, are all green lights to lead.
- These domains promise differentiated growth for Europe and new opportunities for job creation.

Top 5 emerging domains in Europe according to C-Levels

% = Which emerging industry domains/business models provide the best opportunities to improve the competitiveness of European industry? [4]

Most represented Industries (Top 3)

55%	Smart Manufacturing	Pharma, Health	Industrial Equipment	Banking/ Insurance
50%	Digital Health	Soft. & Platforms	Banking/ Insurance	Retail
46%	Smart Mobility	Automotive	Travel	Retail
35%	Low-CO2 emission industry	Energy & Utilities	A&D	Industrial Equipment
30%	Clean Hydrogen technologies and systems	Energy & Utilities	Travel	Industrial Equipment

Source: Accenture Research quantitative survey, All respondents (N=700)

The top 3 emerging domains together represent an enormous market with outsized growth potential.

€536bn

Represented by Smart Mobility, Digital Health, and Smart Manufacturing spending in Europe in 2025

3X

Increase in Market Size for Digital Health in Europe between 2020-2025[13]

2X

Increase in Market Size for Smart Manufacturing Spending in Europe between 2020-2025[14, 15]

3X

Increase in Market Size for Smart Mobility in Europe between 2020-2025[16, 17, 18]

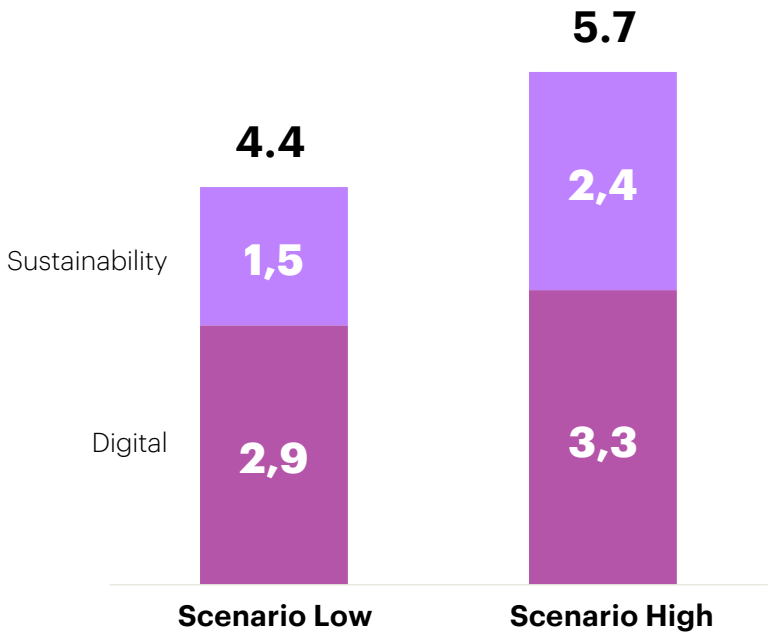
"We have made investments in the electric vehicles and mobility solutions, including vehicle well-being and other related services. We are also focusing on investing in digital technologies, which help us save on costs and drives sustainability. We have invested in innovation labs for developing and boosting innovation for new mobility solutions. We have entered partnerships for connected autonomous vehicles, road traffic infrastructure – and this plays a key role in reducing the traffic accidents. We are looking at services that maintain a network with the customers through innovative connected services using embedded software in vehicles. So, we are doing multiple things and investing across multiple domains." [19]

CTO, Automotive, France

Source: Accenture Research in-depth interviews, All respondents (N=35)

Europe has the potential to create 5 million net jobs by 2030 if governments and companies take actions to accelerate the twin transformation.

Potential net job creation from an accelerated twin transformation by 2030 (million)[20]



Top industries with net job creation

- Industrial Equipment
- High tech, Software & Platform
- Utilities
- Automotive
- Life Sciences
- Comms & Media

Source: Oxford Economics, Accenture Research, see Appendix for detailed methodology

In 2020, the pandemic caused a net elimination of 3.5m jobs in Europe despite strong furlough schemes. The number of jobs could rebound to the pre-crisis level in 2023, a much quicker pace than following the global financial crisis and euro crisis where the employment level did not recover to 2008 levels for almost 8 years.

The European wide twin transformation has the potential to boost employment by 4.4-5.7 million jobs by 2030. But for this promise to materialise, it will require significant macro and micro tailwinds including:

- The successful roll out of vaccination programs in Europe in 2021 to limit macro impacts of potential waves and allow economies to fully reopen
- The effective implementation of the European recovery spending packages from 2023 onwards to support economic activity, including continental wide investment in technology and sustainability programs
- The pandemic does not permanently depress labour market participation
- Companies lead and accelerate their sustainability and digital transformation initiatives to create new and resilient business models and job opportunities
- Public and private sectors successfully collaborate on massive reskilling/upskilling programs of the workforce to meet industry demand

Decisive action in three critical areas will yield essential progress.

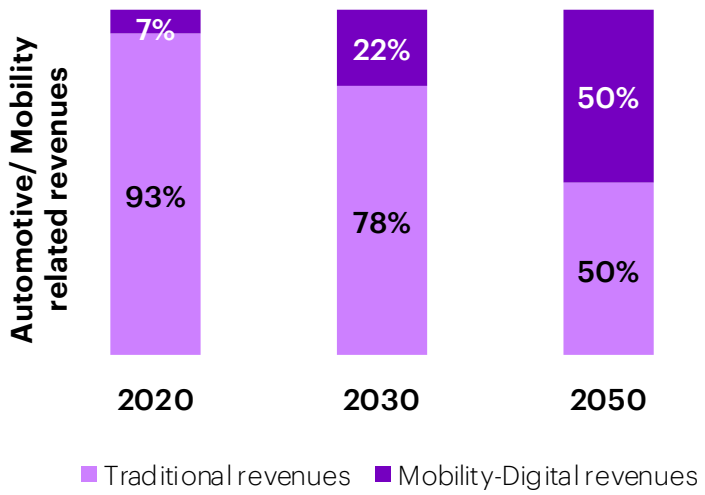
ACTION / 01

Embrace and strengthen ecosystems to drive innovation and growth.

Making ecosystems work is critical to future competitiveness.

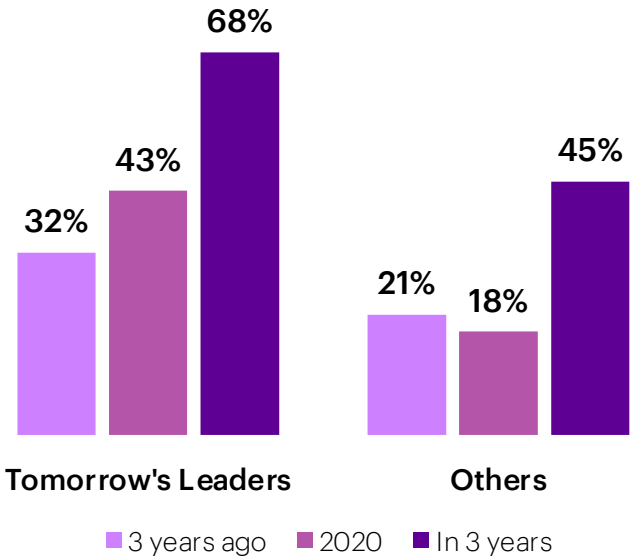
60-70% of new value created in the economy will be based on digitally enabled platforms.[21]

For example, in Automotive, **48%** of the new value created by 2030 will be related to mobility and digital services.[22]



Tomorrow's Leaders are ahead in ecosystem plays and continue to accelerate

% of companies generating **>10%** of revenue through ecosystem plays[6]



Source: Accenture CXO Survey, All respondents (N=3652)

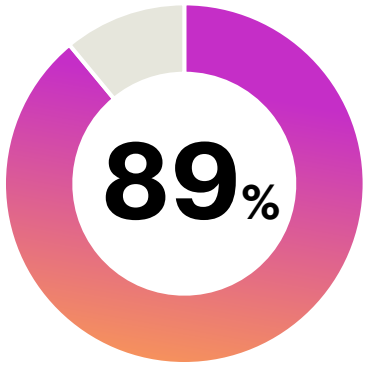
Vertical integration is yesterday's news. Technology and changing customer expectations are fueling demand for The ecosystem-based models of competition instead. Indeed, ecosystems are the foundation from which companies can create new value in high-potential domains.

Consider: New value largely will be generated by digitally-enabled platforms, which rely on ecosystems. In automotive, for example, **48%** of the value created in the next decade will come from data-driven services, mobility services and financial digital services, making ecosystems critical.[22]

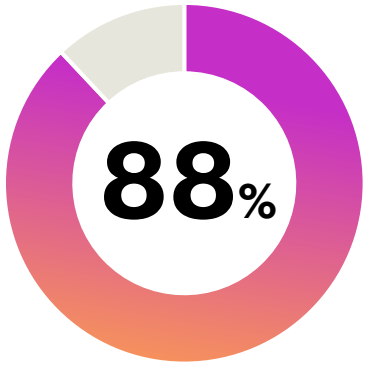
Those who embrace ecosystems business models are also those who are more resilient in this crisis: **43%** of Tomorrow's Leaders, versus **18%** of others, are generating more than **10%** of their revenues through ecosystems. What's more, they plan to accelerate their ecosystem ventures in the next three years.[6]

European business leaders recognise the crucial role of ecosystem-based models, but foresee execution challenges.

Building ecosystem that foster innovation is key for C-levels



- **89%** of European C-levels find it important or very important to build an ecosystem business model for the future of their company.[6]



- **89%** and **88%** of European C-levels agree that ecosystems partnerships with Academia and Start-ups respectively are important to scale.[23]

"To achieve this transformation, broadly, in Europe, we need to create an ecosystem comprising industry players, research institutes, policymakers, start-ups, and other stakeholders that can foster automation in the industry that can deal with any potential future waves of Covid-19 and other pandemics." [19]

CSO, Aerospace and Defense, Ireland

Key challenges:

Cross-industry collaboration, needed for successful ecosystems in high-potential domains, is currently limited to a few areas.

Ability to leverage data at scale across companies, industries and countries is still limited as trusted and secure data-sharing environments are still at the early stages of development.

As yet there are too few examples of best-practices for others to follow.

Source: Accenture CXO Survey, Europe respondents (N=1300), Accenture Research Survey 2021, Europe respondents (N = 736)

How companies move ahead:

Building ecosystem that foster innovation is key for C-levels

1. Engaging in broad-based collaboration among stakeholders within and across industries as well as with academia and government stakeholders. This collaboration should include shared objectives and purpose, integrated R&D, product developments, sourcing and procurement.

2. Investing in infrastructure and asset support, including access to shared secure data spaces (B2C and B2B) at national and European level; Secure interoperable networks; Best practices, model use cases and R&D; Cross-industry centers/networks of excellence to also enable skills development at scale.

3. Enabling investment in industry and cross-industry ecosystems with public-private partnerships at the core through joint ventures, financial incentives and direct financial support.

4. Avoiding siloes/islands of excellence in order to achieve scale.

Some industries have been building clusters, such as Humber in Energy generation in the UK[24] or Catena-X in Automotive in Germany. But there is no transferrable model for a successful ecosystem. The need for more early–mover use-case and industry approaches is clear.

The European automotive industry is connected:

- In March 2021, the Catena-X network was formed.[25] It is an extensible ecosystem in which automotive manufacturers and suppliers, dealer associations and equipment suppliers—including the providers of applications, platforms and infrastructure—can all participate equally.
- The goal of Catena-X is to create a uniform standard for data exchange along the entire automotive value chain. The European International Data Spaces Association (IDS) standard forms the basis for data exchange in the network. A uniform standard should also yield greater supply chain efficiency.
- The network participants expect more efficient quality and logistics processes, greater transparency in terms of sustainably reduced CO2 emissions, and simplified master data management.
- The alliance will start pilot projects focused on five areas: quality management, logistics, maintenance, supply chain management and sustainability.
- The data-sharing network will make it possible to create digital twins of the automobiles, forming a basis for innovation.

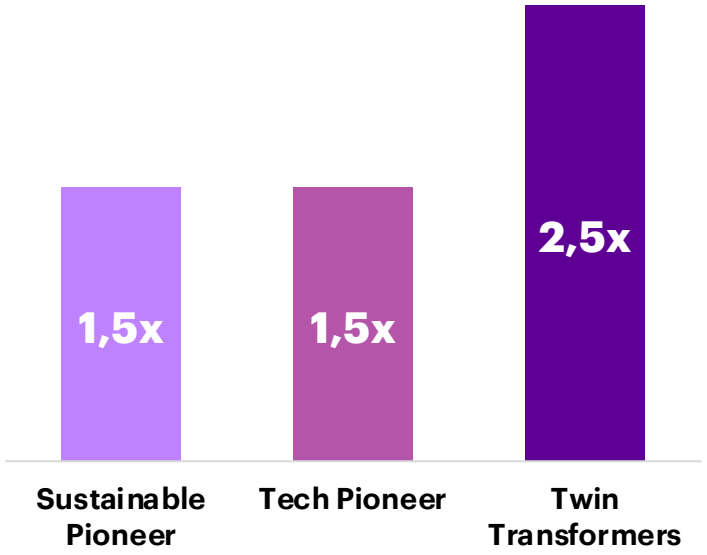
ACTION / 02

Blend digital adoption with sustainable value creation to accelerate “Twin Transformations.”

Twin Transformation pioneers are 2.5x more likely to be among tomorrow's leaders.

The Twin Transformation—blending digital adoption with sustainable value creation—is a high-potential path to becoming a leader, as shown in our European Double Up report.[7]

Likelihood of being among Tomorrow's Leaders
Comparing the odds for companies that are pioneers in sustainable transformation, technology adoption, or both[6]:



Source: Accenture CXO survey, see appendix for detailed methodology for Tomorrow's Leaders, All respondents (N=4050), North America (N=1450), Europe (N=1300), APAC (N=1300)

"Incorporating emerging technology and sustainability measures into our operating model helps us optimize revenues while also strengthening working relationships and risk and compliance management. These three pillars facilitate us in driving our strategic market value and achieving our organizational priorities and objectives." [19]

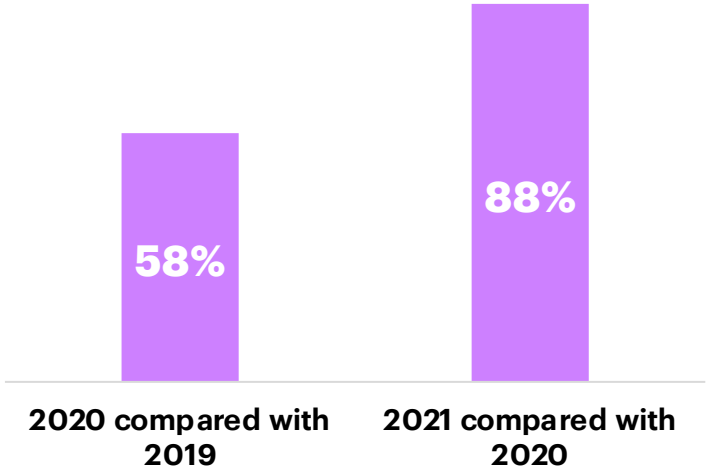
CSO, Aerospace and Defense, Ireland.

Source: Accenture Research in-depth interviews, All respondents (N=35)

European leaders clearly plan to accelerate their digital and sustainable investments in 2021.

Average Investments in Digital and in Sustainability Transformation

% of companies which have increased investments in 2020 and plan to do so in 2021[4]

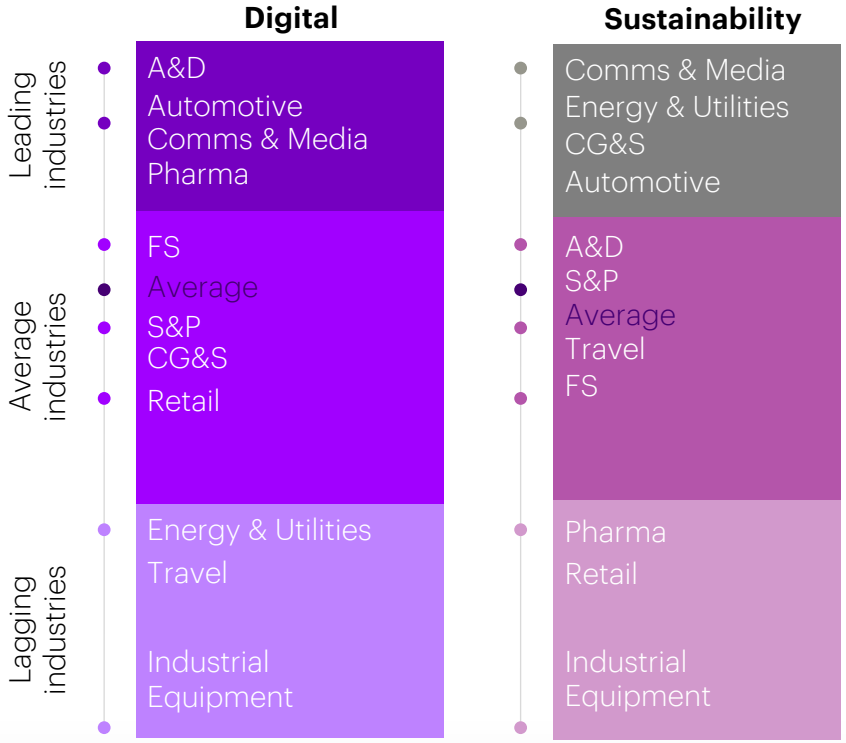


On average companies will double their investments acceleration in 2021 for both Digital & Sustainable from **+2.5%** to **+5.3%**

Source: Accenture Research quantitative survey, All respondents (N=700)

In which industries do we see a group of leaders accelerating much faster in the twin transformations?

Industries where we see the highest share of companies planning to increase investments by more than 10% in twin transformation in 2021 compared with 2020[4]



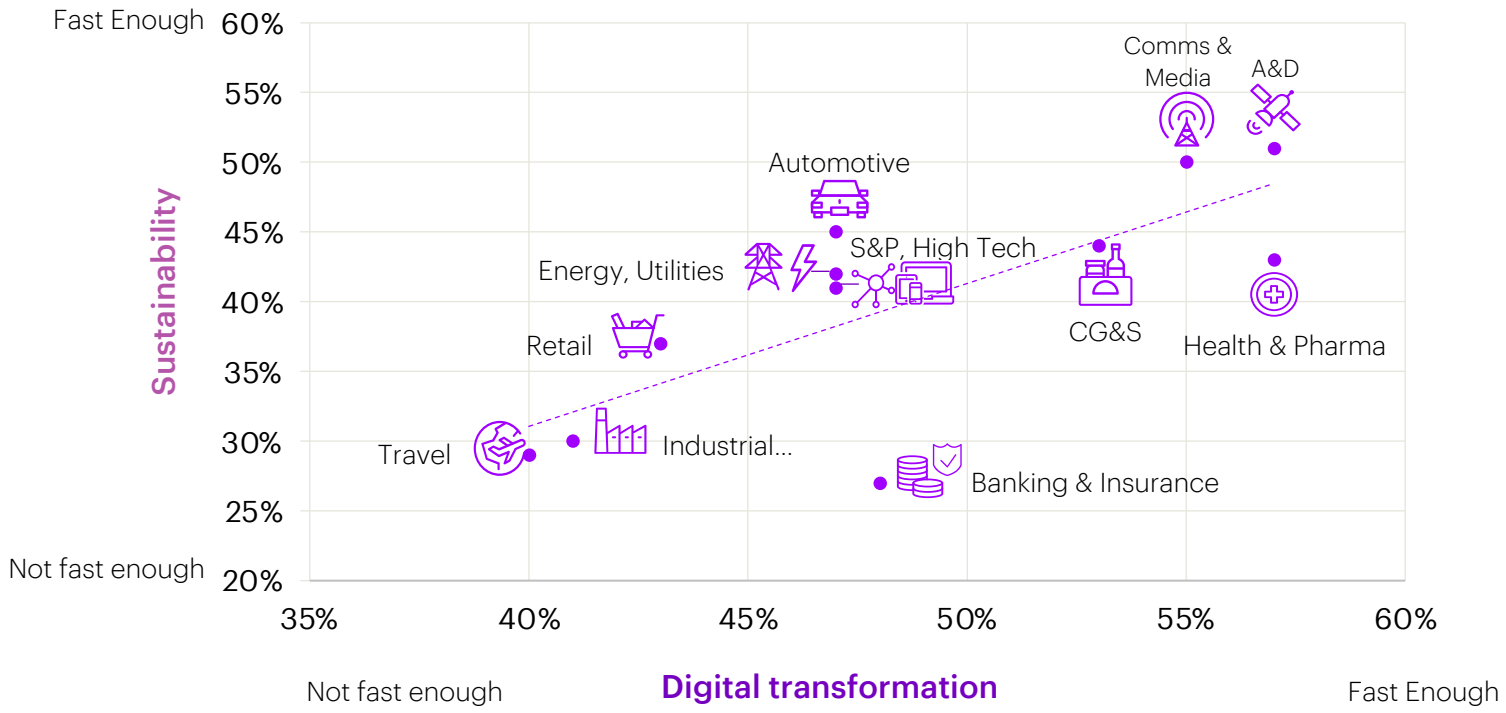
- Accelerating investments in digital and sustainability is critical. But for those investments to pay off, companies need to invest at scale. Those who are accelerating faster will reap the benefits.
- Our survey shows that A&D, Automotive, Comms & Media, Pharma, Energy & Utilities and CG&S are where we can find most of these ambitious companies.

But their digital and sustainable journeys must pick up speed.

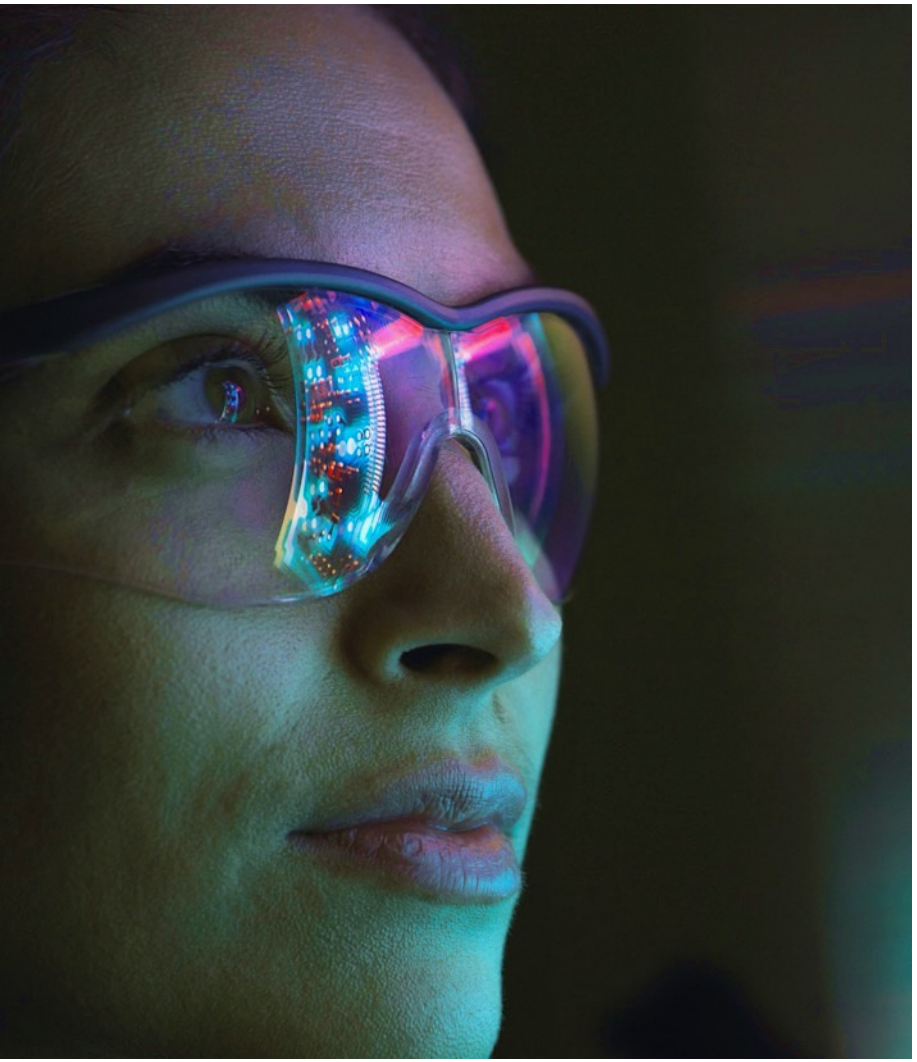
Most companies report that undertaking a Twin Transformation is high on their agenda. However, more than half of the companies that are already engaged in twin transformations say they are moving too slowly to realize the critical, timely gains they need to remain competitive.

Moving at speed, however, is a key factor driving the resilience of Tomorrow's Leaders.[7] The ability to move at speed signals agility and is therefore critical to European companies' efforts to rebound and position for new growth plays.

51% of C-levels say they are not progressing fast enough on Digital transformations and 60% report the same on Sustainable transformations[4]



Source: Accenture Research quantitative survey, All respondents (N=700)

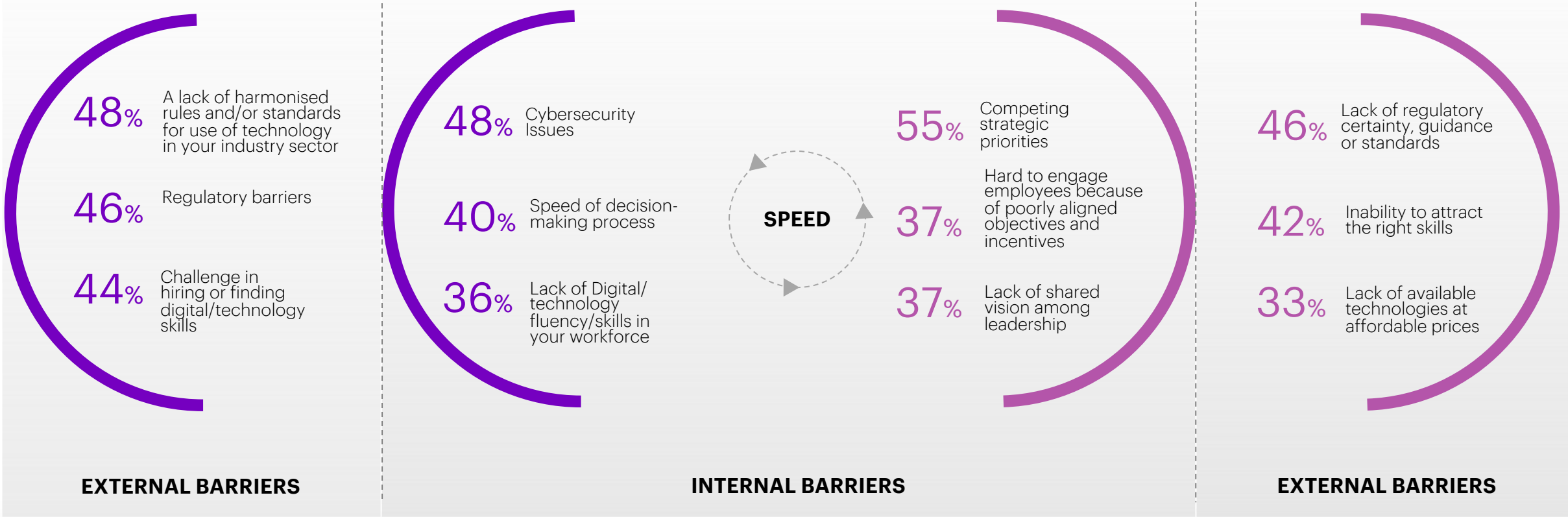


"The digital part of the equation became an element of our company, creating new opportunities and a new possibility for us to position in the market (...) Today we see, maybe, a solution that fits for the next couple of years, but as I said, we want to do something for ten years. So whatever we do, in terms of new services, a solution was needed to have this agility built-in, not like the past, where agility always meant upselling. Now, agility is part of the solution that you can't really upsell since no one will buy it. This is the problem, and that's really the point."[19]

CTO, Communications & Media, UK

The lack of clear and agile internal decision-making processes, aligned external policies and ready talent is holding companies back.

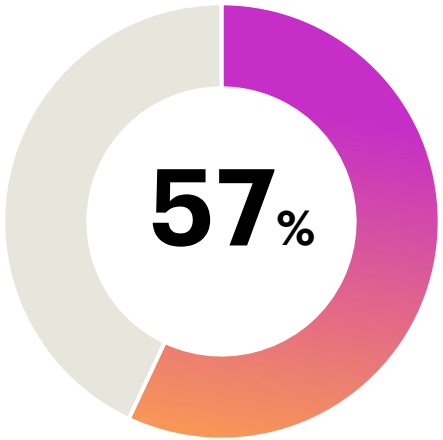
Digital transformation → **TOP 3 BARRIERS[4]** ← Sustainable transformation



Source: Accenture Research quantitative survey, All respondents (N=700)

However, a majority of European businesses are braced for this challenge.

C-levels recognize that conducting the Digital, Sustainable and Workforce transformation in conjunction is key for their companies' competitiveness



57% of European companies recognize conducting the Digital, Sustainable and Workforce transformations together will deliver superior value than to do it in siloes.[4]

Industry view

Pharma 70%
A&D 69%

"I think all three of these pillars are critically important. And in many ways, the importance of all these pillars individually is strengthened, and been accelerated, by COVID-19."[19]

CEO, Automotive, Germany

"I believe all the three pillars are important for our business to improve and to grow. All go hand in hand, and it is important to concentrate and align the business strategies around them."[19]

CHRO, Retail, Poland

*Agree + Strongly Agree combined (4 +5)
Source: Accenture Research quantitative survey. All respondents (N=700)

How companies solve for this

In our report "The European Double Up: A twin strategy that will strengthen competitiveness" [7], we identified five concrete actions to help companies to achieve their twin transformation at speed and scale:

To set 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 practice.

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.

NESTE

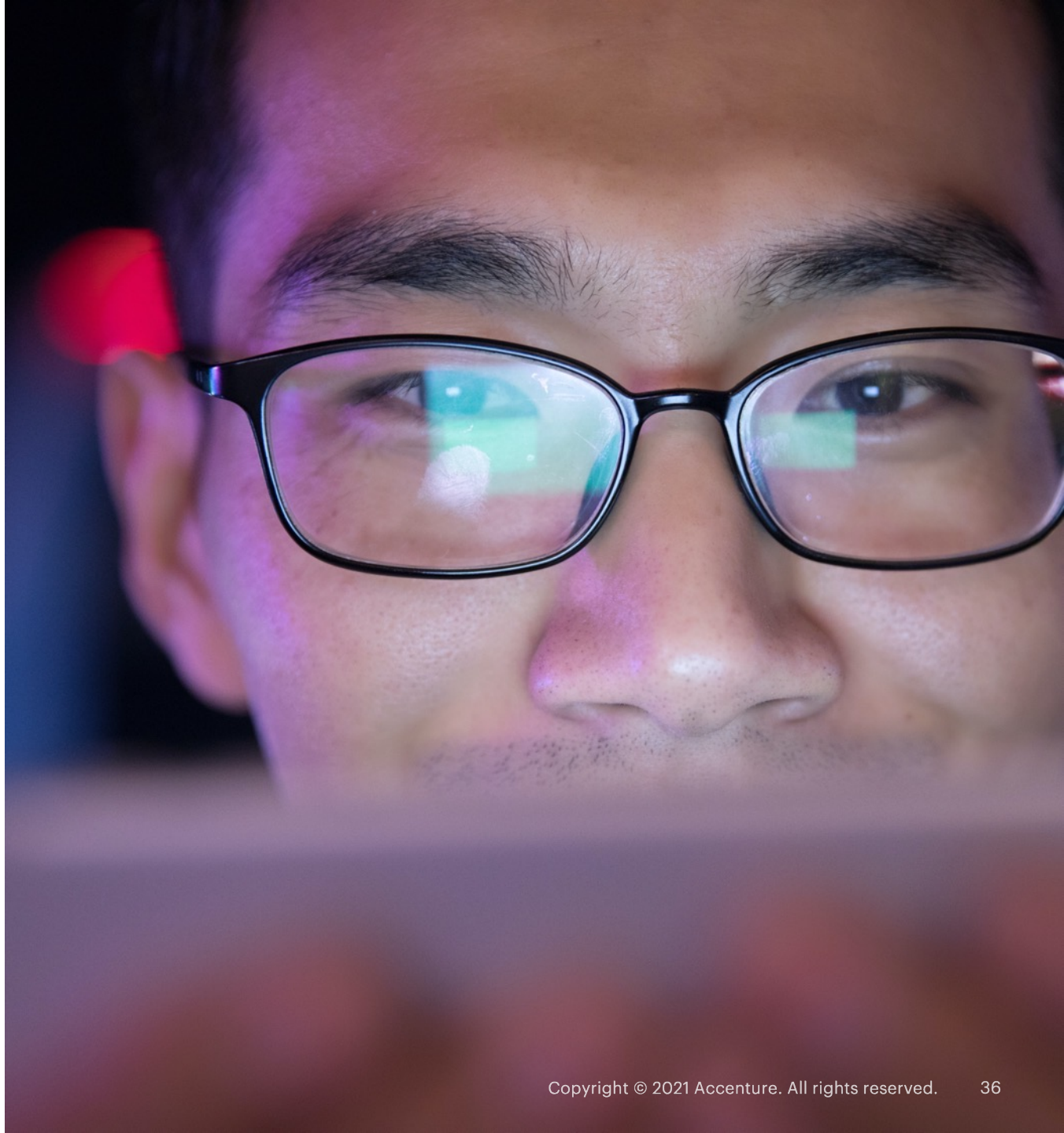
Using platforms to transform waste to Renewable energy products

Neste's tranformation journey has moved them from a local refining company to the largest producer of renewable diesel in the world. In 2020, Neste made over **€4.2 billion** revenue from renewable products, making up **36%** of total revenue. Their renewable products are unique in the way that **83%** of the raw materials that go into their products come from waste and residue streams.

Digitalization is a strategic enabler for Neste. Most of their R&D expenditure has been directed to exploring new raw material pools and technology platforms to enable their use. To improve sustainability in all Neste's feedstock customers, they provide a digital platform for collaboration and reporting. The platform provides new tools and capabilities to improve the sustainability of companies. It also enables Neste to manage the supply chain and feedstock sustainability efficiently. To drive transparency within the palm oil industry, NESTE collaborated with CORE and developed a Traceability to Plantations (TTP) approach specifically for palm oil-based waste and residue raw materials.[26]

ACTION / 03

Reskill the workforce to ensure continued employment growth across Europe.



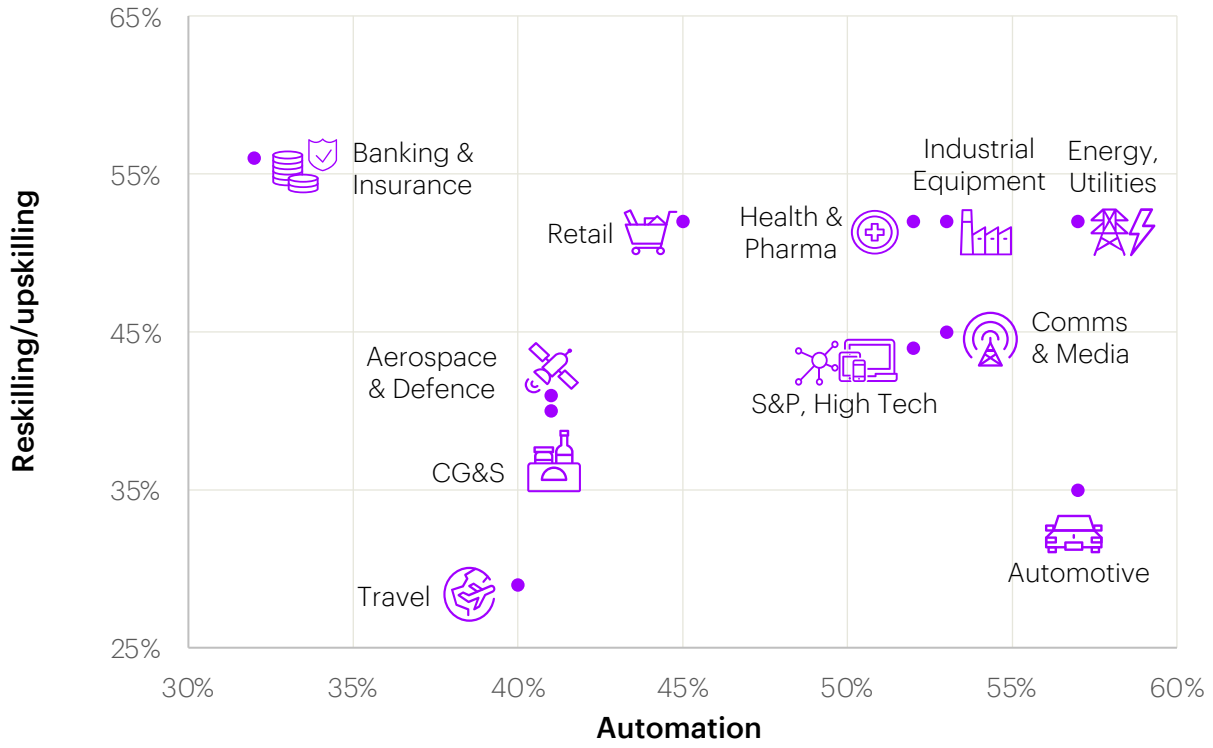
Half of C-level executives say that workforce is the #1 area in need of attention.

With the pandemic persisting, Health & Safety remains the top people issue European companies need to deal with, regardless of their industry: 72% of the C-Levels we surveyed on average felt this way.

But not far behind come two other challenges. One is related to automation (47%) and reskilling/upskilling (45%). The other is about well-being (39%) in a time when the way we work needs to be rethought (26%).

Automation is a more pressing workforce issue that needs to be addressed by Automotive and Energy & Utilities (57% respectively) followed by Comms & Media and Industrial (53% respectively). On the other hand, reskilling seems to be the most pressing for Banking/ Insurance (56%) followed by Energy & Utilities, Retail, Pharma and Industrial Equipment (52%).[4]

Industry view - importance of workforce-related challenges according to C-levels[4]



Source: Accenture Research quantitative survey. All respondents (N=700)

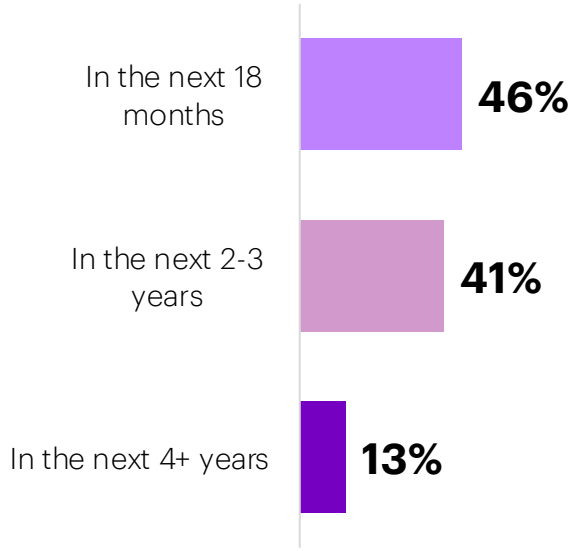
"We are looking to build a more agile workforce and integrated platform for our employees (...) to adapt to the rapidly transforming digital technology. We have taken initiatives for our employees to address their feedback, and young talent (especially at lower to mid-level) is nurtured for future leadership roles (...) When we change the way we work, we must develop capabilities that enable us to change quickly (...) To deal with roadblocks in business, like volatility, complexity and ambiguity, agile transformation is a must."[19]

COO, Communications, Germany

European companies have ambitious reskilling programmes to operate in a short timeframe.

This workforce transformation will be achieved in a short range of time...

When do you estimate achieving skills/workforce transformation?[4]



...with a significant budget allocation acceleration from companies.

Average annual training budget increase for upskilling/reskilling[4]

+7.6% in 2022

(Vs. 4.6% in 2021, 1% in 2020)

Main upskilling/reskilling needs identified relate to

- AI **(49%)** - Travel, Software/High Tech, Pharmaceuticals, Industrial Equipment and Retail
- IT **(42%)** - A&D, Comms and Software/High Tech
- Cloud **(42%)**, FS, Pharmaceuticals

86%

of companies plan to upskill/reskill up to **25%** of their workers in the next three years to keep pace with their company's need.

15%

On average, **15%** of their workforce are concerned,[4] the equivalent of 7 million workers in Europe.[27]

Source: Accenture Research quantitative survey, All respondents (N=700), Eurostat

Finding the right talent is the top challenge and priority.

Key Challenges

53% Lack of skilled talent in the market (53%)[4]

30% Only 30% are skilled in digital technologies[28]

40% ~40% of employees do not have a targeted training plan[28]

"If we don't train people, if we don't reskill people, if we don't (...) 'import people' to Europe, then this crisis will develop and it will be missing almost as much as the fresh air." [19]

Chairman of the Supervisory Board, Communications & Media, Poland

Key Priorities

51% Investments in upskilling/reskilling programs at scale[4]

32% Provide employees with more customised development programs[4]

30% Giving more flexibility to workers to manage how they work in the future[4]

"Reskilling and upskilling the new generation is vital to ensure we have a trained workforce to take up new digital jobs. We are sometimes worried about the future of our workforce. We sense that it is one of the greatest challenges to accelerating digital transformation."[19]

CTO, Automotive, France

Challenges in finding the right talent **(53%)** and lack of training programs (technology and industry specifics) are top of mind for a majority of European companies, especially in Automotive **(60%)** and Software/High Tech industries **(58%)**.[4]

Consumer Goods and Pharmaceuticals point out the lack of technology training with respectively **53%** and **55%**, while a higher share of companies in A&D and Travel are concerned with industry trainings (**57%** and **51%**).[4]

Plans to invest in upskilling/reskilling programs at scale (**51%**) is a high priority for a majority of European companies. But our research highlights two priorities that are directly linked to the impact of the pandemic:

- Enabling more customized work development programs.
- Reinventing hybrid working models to meet employees' evolving expectations, i.e. giving more flexibility to workers to manage how they work in the future.

Source: Accenture Research quantitative survey, All respondents (N=700), Accenture Research Honing you Digital Edge survey, All respondents (N=2000), Accenture Research in-depth interviews, All respondents (N=35)

How companies solve for this

European companies are experiencing a substantial skill shortage, especially with the accelerated digitalization driven by the pandemic and the growing adoption of sustainability practices. We believe that a holistic employee strategy will be essential for European companies to accelerate skilling at scale.

The 2020 Accenture Research reports "Net Better off" [29] and "Honing your Digital Edge" [30] revealed four building blocks of making an organization skills ready:

1. **Enable continuous learning:** Use data to anticipate future skills needs and technology for effective learning experiences.
2. **Use technology to enable flexible work:** Free workers to engage in more fulfilling and innovative tasks through greater human-machine collaboration.
3. **Focus on leadership and culture:** Promote collaborative leadership behaviors that encourage knowledge sharing, learning and risk-taking.
4. **Improve the Digital Workforce Technology Quotient**: A combination of workforce enthusiasm, skills, and comprehension of the value of technologies encourage digital adoption.

Understanding these four pillars will help companies to customize skill plans and work with employees to provide a favorable learning environment within the organization.

BP created a Digital Skills Academy as part of its companywide digital transformation process

- BP undertook a corporate re-skilling program to help prepare its global workforce for a major business transformation initiative that will rely on the development of internal digital talent.
- The company created a Digital Skills Academy to develop new technical capabilities and support innovative ways of working. The aim is to develop a career track that best-suited for each individual.
- The areas of upskilling include data science, platform engineering, and application development, as well as softer skills around design-led thinking and agility.
- BP has also populated digital content hubs to help employees learn new digital skills. It has also hired coaches to support this development process and encourage employees to share their best-practice lessons.
- There are now 2,000 digital practitioners across the organization.[31]

"This transformation requires not just a complete set of new skills for this company, but also a mindset that pivots this entire organization towards a new magnetic north of net-zero. This is really changing everything about this company, with a big shift away from hydrocarbons towards renewable energy, and a focus on customer propositions through electrification, and growing those businesses in a way that is sustainable for our planet."[19]

VP for Strategy,
Architecture and Planning, BP, UK.

European governments and the EU can support business reinvention by putting collaborative dialogue at the heart of a new industrial policy.

Dialogue and collaboration across countries is needed to achieve successful reinvention.

C-levels express a common need for DIALOGUE and COLLABORATION at the European level to be achieved by:

Coordinated approach and partnerships

Coordination of reforms, establishing common systems, policies and integration of European frameworks, supporting ecosystems and alliances between companies, industries and institutions.

Strengthening European identity and mindset

Designing a long-term vision promoting cohesion in Europe, sharing one philosophy, thinking European.

While expectations on engagement were high among all interviewees, different views emerged about the degree of involvement and support expected from the EU and European governments. This ranged from expectations on setting frameworks for common action to those that believed there should be more active involvement in the transformation journey.

"There should be a strong coordination across Europe, especially on big projects, to make these funds used more efficiently, and Europe should encourage the right reforms (...) so that the European economy is modernized. We need to have a more efficient labor market system across Europe. We should have a more integrated financial sector. We should have a deeper market union."[19]

Chairman of the Board, Banking, Spain

"We desperately need a European industrial policy."[19]

Chairman of the Supervisory Board, Communications & Media, Poland

"Within Europe, we need a strong cohesion, and with cohesion, we can – as team players - achieve a quantum leap in the standards of European Cooperation."[19]

CEO, Consumer Goods, Italy

Source: Accenture Research in-depth interviews, All respondents (N=35)

Building the next-generation workforce: Both digital and sustainable transformation creates new skill and talent needs.

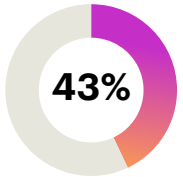
To face existing challenges and prepare the next-generation workforce, the EU and its members states are expected to:

- Upgrade education and training systems by promoting key incubators of talent and innovation, skills for the 21st century, digital literacy, lifelong learning and vocational schools.
- Provide financial incentives to private partners involved in reskilling/upskilling of their employees, e.g. tax relief.
- Engage in collaborative partnerships with industry by encouraging collaboration among academic institutions, start-ups and companies to develop STEM talent.
- Adopt pro-mobility regulation to attract foreign talent and support job mobility across Europe and industries.

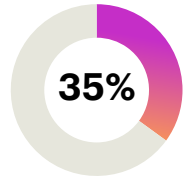
"I think there needs to be a very strong push out of business and industry in the direction of the Ministries of Education across Europe to create a curriculum that is more focused on these 21st Century skills. Coding is very important. Statistics, math, but, also, you know, physics, chemistry."[19]

President and Chief Executive Officer, High Tech, Netherlands

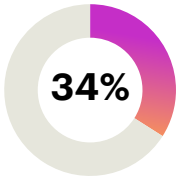
TOP 3 concrete actions that the EU/ European governments are expected to prioritize to help companies achieve their goals[4]:



Invest in industry specific upskilling/ reskilling programs



Invest in training programs for emerging industry segments



Invest in training schemes and upskilling programs to address specific skills required

Source: Accenture Research quantitative survey, All respondents (N=700), Accenture Research in-depth interviews, All respondents (N=35)

Enabling digital transformation: A modern data economy requires collective efforts to support digitalization.

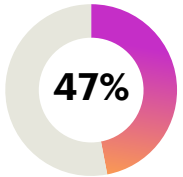
Future success requires a long-term vision and collaborative efforts to digitalize society and business alike. The EU/European governments are expected to:

- Plan and roll out common technology infrastructure, including 5G, Cloud, IoT, AI to enable a modern, digital, data driven economy.
- Create an innovation-friendly regulatory framework to reduce legal fragmentation and red tape; allow the emergence of European global digital players, reconcile user privacy with open access to data, and further develop innovation sandboxes to test emerging technologies.
- Fund European innovation and R&D through initiatives like the European Innovation Council and support the digitalisation of SMEs.
- Maximize collaboration among public and private institutions by creating innovation hubs for academia, start-ups and venture capital to develop R&D projects and rapidly scale successful ideas.

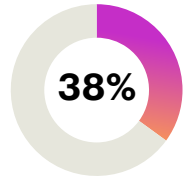
"Strategic, sustainable investment in key technologies is required. In the so-called key technologies of tomorrow—for example, quantum computing or the further development of the effective use of data into a data economy. We must not only catch up but try to play at the forefront and set international standards."[19]

Chairman of the Board of Executive Directors, Industrial Goods, Germany

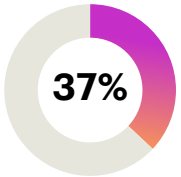
TOP 3 concrete actions that the EU/European governments are expected to prioritize to help companies achieve their goals[4]:



Investment in emerging technologies. (AI, 5G and Hybrid Cloud are the priority areas for 47% of the respondents)



Advancing European standards on cybersecurity



Investment in training schemes and upskilling programs

Source: Accenture Research quantitative survey, All respondents (N=700), Accenture Research in-depth interviews, All respondents (N=35)

Supporting the transition to a sustainable economy and society: Common action is needed for the EU to become carbon neutral by 2050.

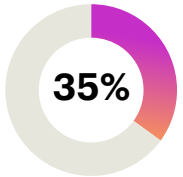
Companies have a role to play in the transition to a sustainable, climate neutral and inclusive economy and society set out in the European Green Deal. But they expect public institutions to:

- Support and coordinate the decarbonization of the economy by investing in developing energy technologies (renewables, hydrogen, others) and ensuring resilience through diversification of supply of resources.
- Finance the energy transition, including direct financing of industry decarbonisation efforts or through financial incentives; fund the development of R&D projects critical for the future.
- Encourage collaboration among companies to create integrated value chains and promote circular models to reduce waste.
- Propose a visionary strategy to transform Europe into a leading player in sustainability; ensure coherence and responsible management (avoid mismanagement) of the Recovery funds to support the development of the green economy.

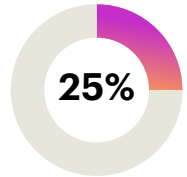
"This Green Deal needs to be science and innovation driven, and regulation needs to take a pro innovation and opportunity driven stance rather than focusing on risk elimination. Only a science and innovation driven, pro competitive approach will drive a stronger, prosperous Europe and more sustainability at global scale."[19]

Chairman of the Board of Management, Pharmaceutical, Germany

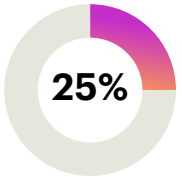
TOP 3 concrete actions that the EU/European governments are expected to prioritize to help companies achieve their goals[4]:



Support relevant skills development initiatives at national/European level



Invest in innovation hubs/networks to scale up and commercialize breakthrough technologies



Support the recognition of existing corporate governance guidelines e.g. ESG reporting requirements

Source: Accenture Research quantitative survey, All respondents (N=700), Accenture Research in-depth interviews, All respondents (N=35)

Supporting the development of high-potential industries means fueling disruptive innovation, enabling ecosystems and removing regulatory barriers.

How can Europe best support these high potential industries?[4] (as % of respondents)

Key areas for collaboration

- 45% Invest in disruptive and breakthrough research and innovation
- 43% Adopt policies to support the development of innovative industrial ecosystems, with cross-industry/country partners
- 41% Develop public-private partnerships
- 38% Invest in related "centers of industry excellence" or industry hubs
- 37% Support the development of infrastructure to strengthen industrial capacity, e.g. digital and energy networks

Source: Accenture Research quantitative survey, All respondents (N=700)

Future Innovation

European public-private partnerships to engage in and to finance R&D programs in universities to rapidly bring innovative ideas from science labs to the market. Cooperation with the academic as well as vocational education and training institutions and companies at different levels aimed at training future workforce and partnerships for reskilling and upskilling. Consolidate venture capital infrastructure to support start-up growth.

Industry Ecosystems

Support partnerships and alliances to advance the development of strategic technologies — such as hydrogen/battery alliances, renewables, cybersecurity and cloud—fundamental to emerging industries, e.g. smart mobility and digital health and in energy transition. Ensure resilience of supply chains and access to critical raw materials (e.g. lithium) through the creation of integrated global value chains and increased diversification of suppliers; reduce resource waste by reusage and recycling.

Coordinated Approach

To enhance efficiency of European cooperation for decarbonization, allow for pooled investments in innovation hubs and better job mobility. This also requires the removal of regulatory barriers to achieve the Digital Single Market and other European-level data platforms, including cloud, cyber, privacy and infrastructure for connectivity or IoT.

Act now to stake a leadership position.

More than a year into the pandemic, amid talk about "returning to normal," some visionary leaders are instead reimagining our world.

The last year brought countless struggles and challenges into stark relief, demanding a reassessment of what "normal" should be.

Europe, and its industries, companies and governments need to choose to build a better future.

This will require the courage to act boldly. The tenacity to reskill workers. The trust to collaborate through ecosystems and across borders. The foresight to invest and innovate. And the will to lead.

With economic expectations and societal norms upended, Europe has a chance to not just survive, but to thrive.

Resilience. Regionalization. Industry Convergence. Digital Acceleration. Sustainability. These are the components of the new paradigm for growth in Europe, a stronger, healthier and more sustainable society, if we seize the opportunity together, now.

Methodological Appendix

About the survey

We interviewed 700 C-suite executives from large companies (50% above $10bn revenues) in 11 industries and 13 countries via online surveys in March-April 2021. Each interview took 30 minutes.

Country	Count	%
France	100	14%
Germany	100	14%
Italy	100	14%
Spain	100	14%
Nordics	100	14%
UK	100	14%
Belgium	20	3%
Ireland	16	2%
Netherland	28	4%
Switzerland	36	5%
Total	**700**	**100%**

Industry	Count	%
Aerospace & Defence	61	9%
Airline, Travel & Transport	65	9%
Automotive	60	9%
Banking/Insurance	71	10%
Communications & Media	60	9%
CG&S	68	10%
Energy & Utilities	60	9%
Industrial Goods & Equipment	64	9%
Pharmaceuticals, Biotech, Life Sciences & Medical Device	60	9%
Software & Platforms	64	9%
Retail	67	10%
Total	**700**	**100%**

C-Level	Count	%
Chief Executive Officer	100	14%
Chief Strategy Officer/ Chief Innovation Officer	100	14%
Chief Technology Officer/ Chief Information Officer	100	14%
Chief Operating Officer/ Chief Supply Chain & Operations Officer/ Chief Production Officer/ R&D lead	100	14%
Chief Marketing Officer/ Chief Sales Officer/ Chief Customer Officer	100	14%
Chief HR Officer	100	14%
Chief Digital Officer	100	14%
Total	**700**	**100%**

About the qualitative in-depth interviews

We interviewed 35 C-suite executives from 11 industries and 14 countries via phone in February-March 2021. Each interview took ~40 minutes.

Country	Count
Belgium	2
Finland	1
France	5
Germany	7
Ireland	1
Italy	2
Netherlands	2
Norway	1
Poland	2
Slovakia	1
Spain	2
Sweden	2
Switzerland	1
UK	6
Total	**35**

Industry	Count
Aerospace & Defence	3
Airline, Travel & Transport	3
Automotive	3
Banking/Insurance	3
Communications & Media	3
CG&S	3
Energy & Utilities	3
Industrial Goods & Equipment	4
Pharmaceuticals, Biotech, Life Sciences & Medical Device	3
Software & Platforms	3
Retail	3
+ additional Professional Services	1
Total	**35**

Definition of Tomorrow's Leaders

Methodology

Based on our CXO survey conducted in November 2020 with 4501 C-levels from 19 industries globally, 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 (2017-2019)
- Fragility phase corresponding to the past 6-months (2020 during Covid)
- Resilience phase corresponding to the next 6-months (2021 H1)
- Rebound phase corresponding to the next 12-months (2021 H2)

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.

Conditions for Tomorrow's Leaders		Pre-COVID-19	Fragility	Resilience	Rebound
1	Operating profit ($)	-	>0	>0	>0
	Change in operating profit compared to previous phase	-	>=0	>=0	>=0
2	Operating profit ($)	-	-	>0	>0
	Change in operating profit compared to previous phase	-	<0	>0	>=0

Methodology – Job impact

Oxford Economics' baseline scenario

Definition: Oxford Economics' central case most likely scenario for the European economy is based on its in-house global view and outlook, stated policies, latest data and outlooks dated March 2021, and the following assumptions/narratives.

- In the eurozone, GDP grows by 4.1% in 2021, following weakness in the early part of the year against a backdrop of a slow start of the vaccination rollout and the extension of public health restrictions. Implementation and absorption of the EU recovery fund is assumed to become effective in 2023.

Average 2030 % level impact by industry	Digital		Sustainability	
	Sc high	Sc low	Sc high	Sc low
Aerospace and Defense	70%	70%	70%	50%
Software and Platforms, High Technology	70%	70%	70%	70%
Life Sciences	70%	50%	70%	50%
Automotive	70%	50%	50%	30%
Communications and media	70%	50%	30%	10%
Banking/Insurance	50%	30%	70%	50%
Consumer Goods	50%	30%	50%	30%
Airline, travel, transport	50%	30%	70%	50%
Retail	50%	30%	50%	30%
Industrial Goods and Equipment	50%	30%	50%	30%
Energy and utilities	30%	10%	50%	30%
Others	50%	30%	50%	30%

Source: Oxford Economics, Accenture Research

Accelerated Twin transformation scenarios

Definition: On top of the baseline scenario, we built 2 scenarios with an accelerated twin transformation as companies and sectors would accelerate at different pace their twin transformation:

- % level difference assumptions versus the baseline (by 2030) based on available research and literature on sector and occupation employment (incorporating both job creation and destruction) from the twin transformations.
- % level difference of the full ten-year impact realised by 2030 (e.g. the pace of transformation), with average industry difference assumptions based on company investment levels in both digital and sustainability initiatives declared by our 700 CXOs survey in Europe and mapped to NACE to sectors.
- Impacts applied as % level difference to OE baseline sector employment level from 2024, with impact % values interpolated 2024-2030.
- Impact assumptions applied at sector employment level – for both job creation and destruction - followed by impact assumptions at occupation by sector level again for job creation and destruction (occupation assumptions are uniformly applied across all sectors, and scaled back to sector employment)
- The model has been built on 6 major countries in Europe (Germany, United Kingdom, France, Spain, Italy and Sweden, representing 65% of the total employment of Europe 28 in 2019) and the results are then extrapolated to Europe 28.

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Chemicals


Travel (Airline, Travel & Transport)


Automotive


Banking/Insurance


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CG&S (Consumer Goods and Services)


Natural Resources


Energy


Utilities


Industrial Equipment


Life Sciences (Pharmaceuticals, Biotech, Life Sciences & Medical Device)


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