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How purpose-led missions can help Europe innovate at scale



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By Ilan Rozenkopf, Pål Erik Sjåtil, and Sebastian Stern **Europe is at an important economic** inflection point. The continent has the required assets for future prosperity, including leading economically in worldwide sectors such as automotive and pharmaceuticals, and is making progress in important innovations that will help it compete. Nonetheless, European business faces a challenge that is eroding its economic position relative to other global powers: building new leading clusters or companies that can innovate at scale. Addressing this challenge is vital to the continent's economic future.

We suggest building on Europe's economic strengths and social capital to tackle the challenge. European business leaders should raise their sights and set new ambitions, both for their own organizations and for collaboration across private and public sectors on fundamentally important projects for the future. Building on a concept originally proposed by Professor Mariana Mazzucato, we call these "missions"—bold and inspirational initiatives to collaborate at scale on socially and economically important topics capable of attracting public support.

This approach can help Europe address its innovation challenge in its own distinctive way, marshalling resources and harnessing ideas and diverse cultures in a set of common ambitions. It could also compensate for structural disadvantages relative to China and the United States, such as a comparatively fragmented domestic market and a less cohesive system of government action.

In sum, missions offer a significant opportunity for European business leaders to take an even stronger lead for more innovation at scale in Europe. Fostering ambition-led collaboration enables scaling of disruptive innovation and proven ideas in a way that leverages Europe's strength in diversity and, thus, the harmony underpinning its social market economy.

## The innovation challenge

Europe's starting position is one of relative strength. Europeans enjoy some of the highest living standards in the world in terms of security, health, leisure, environmental quality, and cultural goods. Growth has rebounded in most countries from the trough experienced in the wake of the financial crisis, only slowing again during the past few months.

Europe is a global leader in critical areas such as sustainability, data protection and privacy, social progress, and gender equality—and its companies are no different. For example, five of the top ten premium cars sold in the United States in 2018 were European, and European companies account for 95 percent of the value of luxury brands globally.

However, Europe is losing ground as a home of leading companies in the world (Exhibit 1). China and the United States have both been more adept at creating new global giants in recent decades. A 2018 analysis of the top 100 companies by market capitalization found that 18 of those companies from China and 13 from the United States were founded in the past 30 years; by contrast, no new company from Europe founded in the same period made the list.

Research indicates that innovating at scale is an important part of the challenge—that is, scaling economic ideas for global commercial advantage. Innovation is fundamental to Europe's economic system and holds the key to improving productivity and facilitating growth. Yet European companies' total R&D spending as a proportion of the global total has declined by more than two percentage points over the past five years, while the share of US companies increased by more than two percentage points, and that of Chinese companies by six percentage points.<sup>2</sup> Partly as a consequence, the region is falling behind in fields such as genomics, quantum computing, and artificial intelligence.

Europe seems well positioned, however, in areas such as public-sector research and talent. The continent is home to five of the world's leading research institutions and 26 of the world's top 100 engineering and technology universities.<sup>3</sup> Moreover, it has more software developers than the United States (5.7 million versus 4.4 million),<sup>4</sup> and the tech workforce employed by European start-ups is growing rapidly. European business is eminently capable of inventing products and launching start-ups—including in the digital sphere. Nonetheless, compared with other regions, Europe has been lagging behind. This gap is especially notable in adoption of digital technologies—Europe has both digital attacker and incumbent shares of revenue that are significantly smaller than in the United States (21 percent versus 31 percent).<sup>5</sup>

<sup>&</sup>lt;sup>1</sup> "The best-selling luxury cars and SUVs of 2018," Car and Driver, January 4, 2019, caranddriver.com.

<sup>&</sup>lt;sup>2</sup> For more information, see "<u>Reviving innovation in Europe.</u>" McKinsey Global Institute, October 2019.

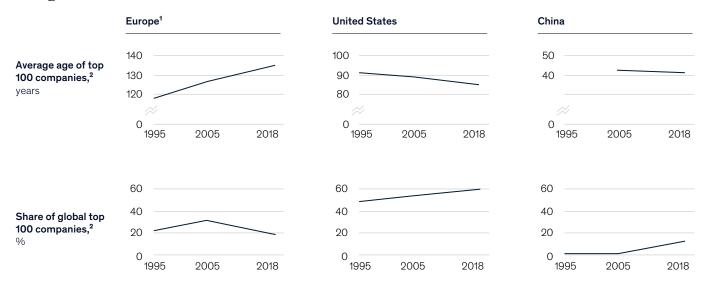
<sup>&</sup>lt;sup>3</sup> As ranked by scientific journal *Nature*; "The world university rankings 2020 by subject: Engineering and technology," *Times Higher Education*, timeshighereducation.com.

<sup>&</sup>lt;sup>4</sup> For more information, see "<u>Tackling Europe's gap in digital and Al.</u>" McKinsey Global Institute, February 2019.

<sup>&</sup>lt;sup>5</sup> As determined in "<u>Reviving innovation in Europe.</u>"

#### Exhibit 1

## Young Chinese and US companies grow to be global giants, while Europe's leading companies lose ground.



<sup>&</sup>lt;sup>1</sup> Excludes Russia and Turkey.

Source: S&P Capital IQ; Bloomberg; McKinsey analysis

By measures of funding, Europe's research-and-development expenditure in 2017 (2.06 percent of GDP) was roughly on par with China's (2.13 percent) but below the United States' (2.78 percent).<sup>6</sup> Europe had the highest public spend in R&D worldwide, with 23 percent of total global public sector R&D spending, followed by the United States with 21 percent (2015).<sup>7</sup> However, according to our research, private-sector R&D investment accounts for only 19 percent of the global total, behind China (24 percent) and the United States (28 percent).

Moreover, funding is focused on traditional segments rather than growing ones, for example on hardware rather than software, or traditional pharmaceuticals rather than biotech. The global top 250 R&D spenders in Europe are dominated by the automotive sector, while R&D spending by software and computer services companies in 2018 amounted to only 8 percent of the global total—compared with 11 percent for China's firms and 77 percent for US companies, as McKinsey Global Institute (MGI) analysis indicates. Europe invests significantly less than the United States (1.7 percentage points of GDP) in intangibles, representing major factors for innovation capacity such as software, databases, and intellectual property.

The main challenge lies not in generating ideas or resources but in harnessing them for global commercial advantage—that is, in Europe's capacity to adopt and commercialize innovative technologies fast and at global scale.

<sup>&</sup>lt;sup>2</sup> Top 100 companies by market capitalization as of end of each year; age of companies resulting from mergers, spin-offs, changes to name or legal form refers to founding year of predecessing companies, age of pirvatized formerly state-owned companies refers to foundation year of state-company, institution, or authority.

<sup>&</sup>lt;sup>6</sup> "Europe 2020 indicators—R&D and innovation," European Commission, August 2019, ec.europa.eu.

<sup>&</sup>lt;sup>7</sup> Science, research and innovation performance of the EU 2018: Strengthening the foundations for Europe's future, European Commission, April 2018, op.europa.eu.

<sup>&</sup>lt;sup>8</sup> For the full McKinsey Global Institute report, see "<u>Reviving innovation in Europe.</u>"

Europe's current situation is partly due to a structural disadvantage: its fragmented markets and governance. While the EU domestic market, with 500 million citizens, is larger than the United States', it is less homogenous than both China and the United States, despite the European Union's efforts to create a single market. Linguistic and cultural diversity are a core strength for Europe but also inhibit rapid scaling; trade and labor markets are integrated, but businesses still must deal with different corporate and individual tax regimes (for example, 81 different value-added taxation regimes across Europe). It is thus also not a coincidence that most large European incumbents have a business model based on the production of physical goods, while a large number of "superstar" companies—a group of extremely profitable corporations with the financial and human resources to develop and scale technology innovation—from the United States are services businesses. Market integration in Europe is currently more advanced for physical goods than for services.

The structure of regional capital markets also partially contributes to Europe's underperformance in scaling start-up companies into giants. While the United States boasts 201 unicorns (private companies valued at more than \$1 billion) and China has 99, Europe has just 50.<sup>10</sup> In the United States, funds invested in latestage equity are 5.8 times the size of the European equivalent.

Political initiatives to improve the boundary conditions for innovation at scale in Europe are underway. For instance, President Emmanuel Macron of France has launched a drive to convince institutional investors to invest more heavily in late-stage venture capital and other specialist funds. The federal minister for economic affairs and energy in Germany, Peter Altmaier, and France's minister of the economy and finance, Bruno Le Maire, have issued a manifesto for a revised European industrial policy for the 21st century, allowing companies across countries to join forces to create European champions. Improving competitiveness and innovation as well as boosting digital education and infrastructure are high on the European Commission's agenda. The financial instruments being used to support this innovation in priority areas are the Horizon Europe research and innovation (R&I) program and €100 billion (2021–27).¹¹ But these initiatives require time to take effect and are unfolding when European cooperation appears to have lost some of its previous momentum.

The question is: Will structural change come fast enough to sustain or even enhance European economic competitiveness? Europe's ability to capitalize on disruptive technology innovations will have a decisive impact on the future of core pillars in the European economy. Soon these could include autonomous driving and new power trains in mobility as well as data and analytics platforms in B2B supply chains. Further on the horizon, the next wave of digital technologies requires artificial intelligence, quantum computing, and synthetic biology, among others. MGI determined that more than one percentage point of productivity growth could result from employing opportunities in these new technologies. However, Europe is falling behind in investment in such areas and has not managed to develop a proportionate share of major industrial companies in growing sectors linked to digital value chains.

We are not convinced that the current trajectory of change is sufficient. An additional approach for innovation at scale in Europe—not to challenge ongoing efforts but to complement them—can help.

<sup>&</sup>lt;sup>9</sup> Innovate Europe: Competing for global innovation leadership, a joint report from World Economic Forum and McKinsey, January 2019, weforum.org.

<sup>&</sup>lt;sup>10</sup> The Global Unicorn Club, CB Insights, January 2019, cbinsights.com.

<sup>&</sup>lt;sup>11</sup> "Horizon Europe—the next research and innovation framework programme," European Commission, ec.europa.eu.



## Models for innovation at scale

Many of the measures discussed to improve Europe's competitiveness aim to level the playing field, in particular vis-à-vis China and the United States in light of their success in innovation at scale over the last decade. Yet it is difficult to see Europe successfully meeting its innovation challenge by simply emulating these countries' approaches.

China's model, wherein centralized government investment fosters growth in strategic sectors and technologies using a massive and increasingly affluent consumer base, is highly effective but, in our view, not a good fit for Europe's traditions and structures.

The US model has two structural advantages. First, it has a fully integrated market—300 million consumers compared with Europe's 500 million—with few barriers to flow of goods, money, or services. Second, it has a proven model for public-sector support of innovation at scale. Especially through defense, the public sector systematically invests in technology innovation. The US Defense Advanced Research Projects Agency, for example, has a budget of approximately \$3 billion to invest in 250 R&D programs around six breakthrough technologies, and is complemented by a US military procurement budget of approximately \$126 billion.<sup>12</sup>

The model is market enhancing; it supports private R&D spending rather than replacing it. Government innovation funding reduces the inherent technology risks of disruptive innovations: everything from basic R&D all the way to fully functioning applications is supported and scaled via government organizations and contracts. Private-sector entrepreneurs and investors can build on those innovations as they benefit from reduced technology risk, leaving them only to contend with the market risk of developing consumer-centric products and business models.

Over time, the United States can benefit from two other important elements that enable innovation at scale. It is home to not only Silicon Valley, the leading innovation and start-up ecosystem at scale, but also a group of superstar companies.

Europe needs its own approach for innovation at scale that both builds on its unique strengths and overcomes its unique challenges.

<sup>12 &</sup>quot;Budget," DARPA, darpa.mil; National Defense budget estimates for FY2018, Office of the Under Secretary of Defense, August 2017, comptroller.defense.gov.

Europe has its own start-up ecosystems that have built successful companies such as Spotify and Zalando. But none of them can match the United States' capacity to create value from innovation: even combined, Europe's main ecosystems generate just more than half of Silicon Valley's exit value.

The share of European superstar companies in the top 10 percent fell from 32 percent to 16 percent, between 1995 and 2016.<sup>13</sup> In the same time period, superstars in Canada, the United States, and Asia–Pacific held steady or even soared. The significance of superstar companies is in their ability to not only capture the most gains but also devote more than twice as much R&D as median firms—indeed, 250 companies constitute approximately two-thirds of global R&D investment.<sup>14</sup> For example, the US digital platform giants invest substantially more in R&D than any European companies, with Amazon investing twice as much (Exhibit 2).

These data illustrate that there is much to learn from the United States, just as there are benefits from continuing to level the playing field with China. However, such efforts are necessary but insufficient. Europe cannot limit its efforts to copying core elements of the US or China model because Europe is more fragmented—and likely to remain so. Furthermore, Europe cannot hope to match the scale and concentration of public resources that the United States devotes to supporting innovation. To take a recent example, Germany's newly created disruptive innovation agency was launched with an annual budget of €100 million.¹5

Europe needs its own approach for innovation at scale that both builds on its unique strengths and overcomes its unique challenges. We believe that the approach must combine diversity and collaboration. Europe should convert its diversity into an asset by fostering at scale collaboration via new business ecosystems involving large and small companies—all enabled by a mission-led innovation model.

R&D expenses of selected multinational companies, FY2018

#### Exhibit 2

## US tech giants spend more on research and development than large EU firms.

#### Size of bubble corresponds to % of total revenue **R&D** expenses, €, billions 30 Amazon 25 20 Alphabet Apple 15 10 SAP Facebook Alibaba Volkswagen Daimler Baidu BMW 5 Tencent 0 0 50 60 70 80 90 100 120 130 140 150 160 170 180 190 200 210 220 230 240 10 110

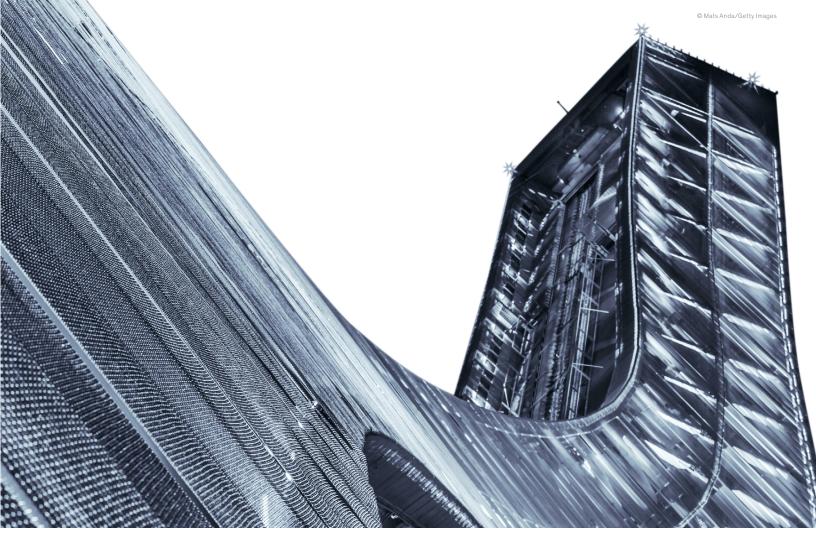
Total revenue, €, billions

Source: S&P Capital IQ; McKinsey analysis

<sup>&</sup>lt;sup>13</sup> James Manyika, Sree Ramaswamy, Jacques Bughin, Jonathan Woetzel, Michael Birshan, and Zubin Nagpal, "'Superstars': The dynamics of firms, sectors, and cities leading the global economy," October 2018, McKinsey.com.

<sup>&</sup>lt;sup>14</sup> For more information, see "<u>Reviving innovation in Europe.</u>"

 $<sup>^{\</sup>rm 15}$  "The search for the next big thing," Agency for Jump Innovations, September 18, 2019, tages schau.de.



## Mission-led innovation at scale

A mission—a concrete, ambitious goal—has the power to unite different stakeholders to collaborate at scale and provide a bold and inspirational space to answer Europe's innovation challenges. By setting a direction for innovation-led growth based on a joint purpose, missions can foster a broad collaboration between business leaders and the public sector while also garnering support from European citizens.

Societal challenges are complex. More complex than going to the moon, which was mainly a technical feat.

—Mariana Mazzucato (Mission-oriented research & innovation in the European Union, 2018)

A historic, often-cited example is the US mission to put a man on the moon by the end of the 1960s. It was a geopolitical and technological program with a clear, ambitious objective and a concrete timeline. It required cross-sector investments and disruptive innovation in aerospace and numerous other sectors, involved more than 20,000 companies and other institutions such as universities, and worked toward a common objective. It not only succeeded in meeting its aim but also generated many unexpected and important spin-offs, including digital fly-by-wire flight controls and techniques to improve food safety, clothing, and hearing aids. The spirit of this approach is still alive and relevant today in the US industry partnerships being pursued by NASA. Thirteen US companies, including Elon Musk's SpaceX venture, have been selected to partner with NASA centers to mature industry-developed technologies and help maintain American leadership in space. The strategic mission this time is to put a human on Mars by 2040.

Why is mission-led innovation appropriate for Europe's needs and strengths? According to Professor Mazzucato, common missions have the potential "to orchestrate the rich diversity of talent and expertise that today lies mostly fragmented or untapped across Europe." They turn the apparent weakness of fragmentation into the strength of diversity. Rather than seeking to mimic the centralized and focused innovation systems of the United States and China, common missions set overall directions for innovation while enabling bottom-up solutions. A focused, collaborative effort in Europe creates scale. At the same time, tapping diverse centers of excellence and enabling experimentation at the level of individual companies, states, and regions unlocks creative competition.

Recent European history may not have anything quite as dramatic as the Apollo space mission, but it does contain instances of ambitious and constructive collaboration at scale. One well-known example is the sustained program of collaboration, industrial consolidation, and investment from 1970 onward that led to the creation of the European Aeronautic and Space Defense Company in 2000 and ultimately to the success of Airbus as a global aerospace leader. This is a classic European mission, born of the desire to compete with the United States in a critical industry requiring long-term investment at scale. The perceived economic and political importance of, and public support for, its objective sustained it through multiple challenges (see sidebar, "Examples of innovation at scale").

## A focused, collaborative effort in Europe creates scale.

<sup>&</sup>lt;sup>16</sup> "NASA Langley Research Center's contribution to the Apollo Program," NASA, April 22, 2008, nasa.gov.

<sup>&</sup>lt;sup>17</sup> "NASA announces US industry partnerships to advance moon, Mars technology," NASA, July 30, 2019, nasa.gov.

<sup>&</sup>lt;sup>18</sup> Marianna Mazzucato, *Mission-oriented research & innovation in the European Union: A problem solving approach to fuel innovation-led growth,* European Commission, February 2018, ec.europa.eu, p. 5.

### Examples of innovation at scale

Notable international examples illustrate how ambitious missions can galvanize public—private collaborations to stimulate innovation with broad benefits to the economy, business, and society.

Quality mobile communications in Europe. In 1983, an agreement among a group of 13 European countries established global system for mobile communications (GSM) as a mandatory common standard for cellular networks. In tandem with this common standard came publicly funded investment in mobile communications, led by the Finnish government, and a wave of private-sector R&D spending led by Nokia. These early investments enabled European telecommunications

companies to develop a leading global position lasting into the mid-2000s, with Nokia commanding a 41 percent share of the global mobile phone market in 2005.

## Cutting-edge technologies for defense and civilian use in Israel.

Israel, although a much smaller market than the European Union, offers some successful recent examples of mission-led collaboration. In cyber security, the country has established unique expertise thanks in part to the efforts of Unit 8200—a division of the country's military intelligence directorate that plays a critical role by training large numbers of recruits and testing applications. The Technion—Israel Institute of Technology provides public support for commercialization, and the

leading US technology platforms have been encouraged to set up in-country R&D operations to complete the local innovation ecosystem. Recently, the INNOFENSE program has launched to encourage start-ups to pilot their technologies in collaboration with the Israeli defense forces, strengthening the connection between the civilian and security market. Scaling has been assisted by procurement via the Israeli Defense Forces budget and through rapid growth of global sales, with Israeli cybersecurity exports reaching approximately \$6 billion in 2017. It is no coincidence that Israel is the country with the world's highest per capita venture capital spend and the third largest number of companies listed on NASDAQ.2

The European Commission recently launched work on five major European R&I missions that will be part of Horizon Europe. These missions are designed to deliver solutions to some of today's most urgent global challenges, such as cancer, climate change, healthy oceans, climate-neutral cities, and healthy soil and food. They aim to rally investors around quantifiable, impactful objectives that augment the effect of R&I efforts across the European Union.<sup>19</sup>

<sup>1</sup> Andy Hira, "Secrets behind the Finnish miracle: The rise of Nokia," International Journal of Technology and Globalisation, 2012, Volume 6, Number 1/2, pp. 38-64.

<sup>&</sup>lt;sup>2</sup> 2016 European venture capital report, Dealroom, January 2017, blog.dealroom.co; Alex Mitchell, "Top 10 Israel startups to watch in 2019," Medium, February 26, 2019, medium.com.

<sup>&</sup>lt;sup>19</sup> "Commission launches work on major research and innovation missions for cancer, climate, oceans and soil," European Commission, July 4, 2019, ec.europa.eu.

## Business to take the lead

How can European business move forward with a mission-led collaboration model? The conditions are favorable with key required components in place: an increased willingness of CEOs to articulate a broader purpose for their organizations together with a political commitment to channel resources and drive R&I in relevant areas for Europe's future competitiveness. Just as important, European citizens appear to support the idea of business taking the lead on innovation around critical societal challenges.

A recent McKinsey opinion survey in five key European countries showed strong support for greater public—private cooperation in the interest of improving Europe's economic position. Of those surveyed, 65 percent saw a need for significant economic change to improve competitiveness; as much as 84 percent of citizens thought governments should do more to support business. The survey also indicated that citizens wanted business leaders to take the lead. Asked whether business leaders should take a stronger lead on change "rather than wait for governments to impose it," 83 percent of interviewees either strongly or mostly agreed. Support for a stronger business role was evident in all five countries surveyed.

Business leaders have numerous opportunities to deliver on these citizen expectations. We suggest they begin by taking three steps.

### Define purpose and missions

First, they should use their ambition to define the organization's corporate purpose—a company's value to its stakeholders—and embed it in the DNA. The concept of a purpose-led organization has been discussed extensively, <sup>20</sup> including its value in attracting and retaining talent in an increasingly competitive recruitment market. Business leaders should be encouraged to extend this approach by setting specific aspirational missions. These should aim to strengthen business performance in the mid- to long term, and many will also provide valuable societal impacts. Clearly demonstrating such value can form the basis for collaboration with industry peers and the public sector in the required development and scaling of technological innovation.

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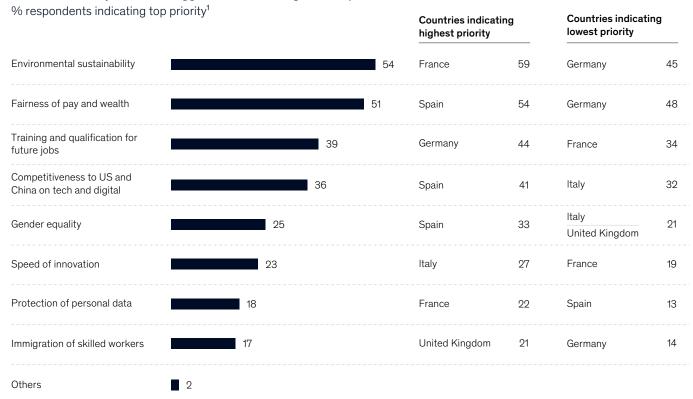
<sup>&</sup>lt;sup>20</sup> Strategy & Corporate Finance Blog, "Embedding purpose: fewer slogans, more action," blog entry by Naina Dhingra, Robin Nuttall, and Matt Stone, August 28, 2019, McKinsey.com; "The importance of innovation and purpose in capturing growth," McKinsey Global Institute, May 2019, McKinsey.com; "How purpose-driven growth and a strong culture can beat the market," McKinsey Global Institute, September 2019, McKinsey.com.

The most obvious domain in which there is strong public support for business action is environmental sustainability, making it a prime area to identify missions (Exhibit 3). Our opinion survey identified this as the area where citizens see the biggest need for change in Europe's society and the second-most important priority for business leaders to drive change, after "fairness of pay and wealth." Other priorities included training and qualification for future jobs, digital competitiveness, and speed of innovation. These are all areas in which CEOs could expect broad support from citizens.

Concrete actions responding to these imperatives will help rebuild public trust in business leaders, with hope that they will act in the interest of Europe's economy and society. Our survey showed there is much ground to make up—75 percent of respondents said they had little or no trust that business will act in the wider public interest. This political reality makes it difficult for governments to take actions that benefit private sector organizations unless they can demonstrate an immediate beneficial impact on employment.

Europeans consider sustainability and wage fairness top priorities for change.

#### In what areas do you see the biggest need for change in Europe's economies?



<sup>&</sup>lt;sup>1</sup> Survey taken September 2019.

#### Foster collaboration within and across industries

Second, business leaders should look for opportunities to pursue their missions via wider collaborations—not just within Europe, but in an open and inclusive fashion that offers companies incentives to collaborate with each other all over the world. Though antitrust regulation in Europe often preempts wider industry consolidation, companies should consider special-purpose vehicles and joint-venture models to build platforms with industry peers for innovation at scale.

European companies have been at the center of several encouraging examples of this approach in recent years. In 1987, four European airlines—Air France, Iberia, Lufthansa, and Scandinavian Airlines—collaborated to establish a global platform for airline ticketing. Their mission was to build a system to connect an airline's "content" (their reservation databases) with travel agencies and customers in real time. The result was the computer reservation system Amadeus, which unlocked customer value by facilitating airline bookings on multiple databases through a single online portal. Amadeus is now the largest global distribution system provider globally, with 44 percent of market share compared with Sabre's 37 percent.

More recent examples of cross-industry collaboration can be found in the automotive industry. In 2015, car manufacturers Audi, BMW, and Daimler acquired the mapping company HERE Technologies, aiming to set a new standard in live HD-mapping and establish a stronger platform for new owners to successfully use autonomous driving. HERE has since established a wider network of cross-sector alliances as well as partnerships with companies from chip manufacturers to consumer electronics, working on a range of technologies to improve localization and navigation for autonomous vehicles and other applications. In support of the developing market for electric vehicles, manufacturers from Europe and the United States led a collaborative effort named lonity to develop a standard vehicle-charging station. This effort led to the speedy rollout of ultra-rapid charging stations across Europe and elsewhere.

These cases illustrate how players within and across industries, though sometimes in competition with one another, have successfully collaborated at scale in pursuit of a joint mission.

#### Strengthen public-private partnership and dialogue

The third step in developing effective missions sees business leaders drive new forms of collaboration and dialogue with the public sector. By definition, the proposed new business missions will require various forms of support from the public sector, since they are intended to operate at scale and many will impact vital public goods, such as infrastructure. These missions need to demonstrate tangible societal benefits that can inspire citizens and generate political support.

European companies have been at the center of several encouraging examples of this approach in recent years.

The concept of missions has the value of enabling scaled public-sector support for private-sector innovation and investment along two critical dimensions. First, missions can provide a focus for various forms of public-private interaction such as deployment of R&D funding, public-sector procurement, and regulation. Second, they can galvanize a variety of public-sector actors into action, from EU institutions, to member-state governments, to different ministries or administrative divisions within countries.

If supported, public funding could be used to reduce risk in early—stage technology investment or support scaling up by using public-sector spending in defense, infrastructure, or other areas. Europe's high levels of public R&D spending, including through the Horizon Europe program, should not go unmentioned. In addition, European procurement spending on public services and products amounts to 14 percent of EU GDP—equal to about €2 trillion.<sup>21</sup> Using this value wisely to support rapid scaling of innovative products and services on a Europe-wide basis could have significant impact.

Well-chosen business missions with support from citizens should also elicit a positive response from regulators, for example, in testing innovations at scale or establishing common standards. In shared missions with objectives defined by collaborating business leaders and governments, there is the prospect of using all the available public instruments—R&D funding, public procurement, regulation, and standard-setting—to the same end.

Several ideas could stimulate discussion about Europe's potential new business missions:

- > Space. Europe reclaims space leadership by building a "digital Galileo" to ensure European digital end-to-end sovereignty and independence.
- Decarbonization. Major energy providers, infrastructure operators, and regulators drive change to decarbonize the European energy supply, cutting carbon emissions by 90 percent by 2050.
- Congestion. European municipalities and mobility players collaborate to make major European cities congestion free and carbon neutral by 2025.
- → *Mobility.* The top research institutions, mobility companies, and public bodies ally in building a European "mobility valley," putting the continent at the forefront of future mobility innovations and mastering the related employment transition.
- Sustainability. European retail players take a lead role in the sustainability revolution, becoming a global force in driving environmental sustainability at scale in the apparel value chain.
- Healthcare. Pharmaceutical, healthcare, and public-sector actors set the conditions to ensure 100 years of healthy life for all Europeans by 2040.

<sup>&</sup>lt;sup>21</sup> "Public procurement," Internal Market, Industry, Entrepreneurship and SMEs, European Commission, ec.europa.eu.

These missions are ambitious but could have concrete deliverables and be viewed as addressing an emerging market need. Most, if not all, would inspire strong popular support and could galvanize governments into action.

Europe's innovation challenge presents business leaders with an opportunity to rethink and rearticulate their companies' wider social and economic purpose. What's more, they can express it by establishing—separately and collectively—a set of ambitious, value-creating missions that will address Europe's future needs in a sustainable manner. Doing so at scale will increase the pace of innovation and enhance European productivity, growth, and quality of life. And it will do so in a way that aligns with European political and social values, giving citizens and governments the confidence to provide concrete support for business.

Above all, a mission-led approach requires business to make the first move rather than wait for governments to act. If they rise to this challenge and raise their sights, business leaders have an opportunity to transform Europe's economic ecosystem while generating new revenues and profits.

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The authors wish to thank Pierre-Ignace Bernard, Christiane Bergner, Jacques Bughin, Diane Buzea, David Fine, Guido Frisiani, Johannes Hallermeier, Carsten Hensel, Alexandra Lai, Corinne Möller, Julia Pantel, Antoine Rochette de Lempdes, Pedro Rodeia, Occo Roelofsen, Julian Sproßmann, Pierre Supau, and Eckart Windhagen for their contributions to this article.

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