

Updating the European industrial strategy for the post-pandemic world

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In March 2020, as the pandemic began to sweep through Europe, the European Commission published the Industrial Strategy, the blueprint for an assertive European industrial policy that drives the digital and green transitions. While its broad principles continue to hold, it must now adapt to the post-pandemic world's challenges. Furthermore, the original strategy only provided a high-level roadmap, with many areas requiring further development.

The Commission is expected to publish an update to the 2020 strategy on 27 April. We recommend a range of measures to strengthen the design and implementation of the programmes outlined in the current strategy, across four themes: finance, industrial ecosystems and alliances, technology transfer, and strategic autonomy.

BACKGROUND

The EU remains one of the world's richest areas, but it increasingly fails to reach its economic potential. Despite strengths in several sectors, its share of added value in global value chains has declined precipitously, beyond what its naturally declining share of the world economy warrants.¹ Since 1995, EU productivity growth lags behind the US substantially, contributing to the ever-increasing GDP gap.² There are six key areas where the EU struggles.

- **Low research and development (R&D):** Europe invests significantly less in R&D (2.2% GDP) than the US (2.8%), Japan (3.3%), South Korea (4.5%), and China has recently overtaken it.³ Its private sector also makes up the lowest share of domestic R&D – 67% compared to the US' 73%.⁴
- **An undiversified and undynamic industrial base:** Of the 6 European companies in the top 25 global R&D leaders, 4 are in the automotive sector. The EU represents 7% of companies leading in software and computer service R&D, compared with 71% for the US; and 13% of R&D in hardware, compared with the US' 42%. This is illustrative of the EU's wider failure to foster innovative companies. Since 2016, only 10% of new entrants into the top 2,500 R&D firms were European, compared to 32% for the US and 39% from China.⁵
- **Fewer intangible investment:** Intangibles are an ever-increasing proportion of the global economy. Due to the lack of associated collateral, the EU's bank-based financial system is ill-equipped to finance necessary investments.⁶ As such, EU firms, particularly small and medium-sized enterprises (SMEs), underinvest in the various intangibles associated with modern, productive, knowledge-based economies.⁷
- **Lack of scale-up:** Promising EU firms often lack the capital to scale up.⁸ Despite tripling in the past years, EU venture capital is still far behind the US and China and has been growing more slowly.⁹ Many EU industries do not develop the scale to compete internationally. For example, despite the EU's initially strong position in solar energy R&D, China developed economies of scale that now dominate the industry.¹⁰ This does not bode well for the EU's current strengths in other green sectors, as China already outstrips the EU's green investment levels.¹¹
- **Poor technology adoption:** The EU has a long tail of firms, making up most of the economy, that lags in adopting existing (digital) technologies. Much of our slowdown in productivity relative to the US is attributed to this.¹²
- **Regional technological divides:** Many EU regions are struggling to adapt to the digital and green

transitions. Furthermore, agglomeration economies inherent to these transitions exacerbate the concentration of high-value activities in already advanced areas.¹³

The impact of COVID-19

EU GDP contracted by 6.3%, and investment suffered a sharp decline in 2020.¹⁴ Manufacturing production appears to have rebounded relatively quickly, but many European industries will not recover completely within this year.¹⁵ The service sector lags even further behind.

Overall, the European economy is not expected to fully recover until mid-2022, with Italy and Spain still not reaching pre-pandemic GDP levels by the end of 2022. Within countries, some regions have been hit disproportionately harder. This is exacerbating territorial disparities and socio-economic inequalities.

Companies have also emptied cash reserves; corporate debt has jumped.¹⁶ This will have a drastic impact on private investment as firms repair their balance sheets, with an estimated cumulative shortfall of €831 billion over 2021 and 2022. The pandemic is also accelerating digitalisation,¹⁷ and firms face extreme uncertainty over the structural changes that may emerge (e.g. more telework, online shopping). The potential structural changes forced by COVID-19, digitalisation and the green transition will create a new set of competitive pressures and require extensive investment and technological upgrading. However, in trying to adapt to these forces, firms face depleted balance sheets and uncertain economic prospects.

STATE OF PLAY

The European industrial strategy

The EU has had many industrial initiatives over the past two decades. However, they were widely seen as insufficient in the face of structural economic changes, particularly the rise of the digital economy, climate change, and the aggressive and geopolitically charged economic competition with China.¹⁸ Following increased interest by (some) member states, the Commission released its Industrial Strategy, which incorporates the Green Deal and digital transition as strategic lodestars and signals a more assertive and proactive industrial policy. It reflects the increased importance of strategic autonomy and moves away from a passive acceptance of the prevailing patterns of technological development, trade and investment.¹⁹

Key aspects of the 2020 strategy include:

- focusing on industrial ecosystems rather than specific sectors;
- using industrial alliances to mobilise and coordinate private investment in strategic sectors;
- greater use of pan-European state support via Important Projects of Common European Interest;
- reducing international dependencies;

- incorporating assertive trade and investment instruments into the conception of industrial policy; and
- developing and commercialising ‘deep technologies’.

Strategic autonomy after the pandemic

Strategic autonomy is already a key element of the Commission’s 2020 strategy, but the pandemic has strengthened this strand of thinking amongst the Commission and many member states. Although global supply chains proved remarkably resilient, the pandemic, struggles over vaccine supplies²⁰ and the US–China trade war highlight their potential vulnerabilities. The Commission is conducting a review of supply chain interdependencies, and the reshoring of manufacturing capacity and diversification of active supply chain have already been recommended.²¹

The EU is not alone. China’s industrial strategy has shifted to focus on reducing dependencies and indigenising supply chains; the Biden administration is reviewing its own supply chains. The Commission’s update will have to reconcile significant tensions between member states over the continuing benefits of open supply chains and over whether Europe’s strategic autonomy requires reforming competition policy and state aid.²²

PROSPECTS

The March 2020 vision still holds, but the update should adapt to the post-pandemic world. It must also develop concrete principles to guide the new mechanisms set out in the original strategy. We propose four sets of measures to strengthen the design and implementation of those mechanisms. They should be read as complementing the existing strategies (e.g. Green Deal) and well-established proposals (e.g. strengthening the Single Market, Better Regulation; continuing support for innovation and research).

“The industrial strategy update should adapt to the post-pandemic world and strengthen the design and implementation of its mechanisms”.

1. Financing

Finance must be at the heart of EU industrial policy and complement the work on the Capital Markets Union (CMU). The EU’s current financial system is ill-suited for investing in the technologies and industries needed to become more sustainable and competitive. Policy must also make up for the expected shortfall in public investment post-COVID-19.

- **Incentivise private investment:** Direct public investment cannot substitute the expected shortfall in private investment. Not only are industrial alliances a useful mechanism for coordinating investment, but financial guarantees will also be key. However, InvestEU has several competing priorities, and its current size cannot make up the predicted €831 billion shortfall. To support industrial policy programmes, the Commission should mobilise the Recovery and Resilience Facility, European Structural Investment Funds (ESIF) and national funds to provide additional guarantees, in line with InvestEU regulation.
- **Target intangible investments:** The European financial system systemically underfunds intangible investments despite their greater productivity benefits. The Commission should ensure that intangibles are properly financed in its various industrial policy programmes, whether through tailored finance guarantees or other targeted tools.
- **Incentivise equity finance:** European firms' low use of equity is a serious economic handicap and a key focus of the CMU.²³ The Commission should ensure that its financing tools do not further encourage debt over equity and actively mobilise equity financing. It should encourage institutional investors to join industrial alliances and finance the scale-up of proven business models.

2. Industrial ecosystems and alliances

Industrial ecosystems and alliances will be key policy mechanisms, but more detail is needed on the principles guiding their implementation.

- **Target upstream sectors:** In the face of imperfect information about market failures, upstream sectors should be targeted due to spillovers to downstream sectors.²⁴ In some cases, ecosystem assessments may indicate otherwise, but this should be a general principle.
- **Promote the Green Deal:** The EU should capitalise on its existing strengths in green R&D and mobilise investment to scale up commercial applications. Areas like construction, which emit large proportions of global emissions but where green tech is underfunded, should be targeted.²⁵
- **Promote competition:** Designing interventions should encourage competition, even when scaling up commercial solutions. This will allay anti-competitive concerns and ensure aid recipients behave efficiently.²⁶
- **Encourage standard-setting:** The early development and coordination of standards should be encouraged to enhance European competitive advantage.²⁷
- **Mobilise public procurement (PP):** Where feasible, PP channels and commitments, including military PP, should be mobilised to help scale up commercial applications.
- **Support start-ups and SMEs:** Identifying and supporting innovative start-ups and SMEs should be an integral part of all programmes, not an afterthought in an alliance of large, established companies. SMEs often have difficulty accessing EU programmes; they should be actively sought and supported to participate. Regarding start-ups, the EU's high-value industrial base is overly concentrated and characterised by a few new entrants. The European Battery Alliance's biggest success was Northvolt's scale-up, which should guide the design of future programmes. Venture capitalists, business angels and start-up/scale-up support institutions should be actively integrated into all programmes to reach entrepreneurs.
- **Promote inclusion:** Policy should avoid perpetuating regional divergences. Support should be shared fairly across member states and strengthen connections between 'outsiders' and the most dynamic industrial agglomerations. After all, UiPath, one of the EU's most valuable tech companies, was born in Bucharest. Supporting industrial centres in less advanced regions should be encouraged when viable.

3. Technology adoption and diffusion

The long tail of EU businesses' adoption of new technologies is just as critical as the development of leading technology companies. It is a key reason for the EU's lagging productivity growth and will become more critical as the pandemic accelerates digitalisation. The green transition will also require extensive technology diffusion.

- **Promote tech transfers:** Tech transfer programmes should be embedded into industrial alliances, and parallel, dedicated programmes explored (beyond the relatively meagre funding for Digital Innovation Hubs).²⁸ They should also be paired with management training, a critical factor in using technologies productively.²⁹ These should explicitly support areas where tech adoption lags.
- **Adapt SME support:** The EU has a range of SME support instruments, such as those managed by the European Investment Bank. But they are often not geared towards technology adoption explicitly. The strategy update should commit to identifying whether these instruments can be adapted to better support technology adoption, drawing on the lessons from the ongoing European Investment Fund pilot.³⁰
- **Mobilise ESIF:** The ESIF's support for digital upgrading, for both digital infrastructure and firm-specific support, is still extremely low despite its importance for regional competitiveness. The Commission should work with member states to optimise their ESIF support for technology diffusion and adoption.³¹

4. Strategic autonomy

Strategic autonomy should remain one of the strategy's guiding stars. However, the principles guiding its application still need to be clarified and concerns over costs addressed.

- **Clear assessment methodology:** The update should commit to developing a transparent methodology for assessing the most appropriate policy options (e.g. reshoring, diversification, stockpiling, relying on mutual interdependency). Such methodology should explicitly balance resilience, economic value and geopolitical factors against the various direct and indirect costs that member states would have to bear (e.g. higher input costs due to reshoring).
- **Prioritise economic value:** To the extent possible, industrial strategic autonomy should be aligned with the development of high-value sections of global value chains. Strengthening the EU's position in these sectors will increase its leverage over partners and mitigate the risks of interdependency. The strategy should not prioritise reshoring low-value sectors if dependencies can be mitigated through alternatives.
- **Active diversification:** Supply chain diversification is held up as a market-led counter to reshoring. However, the current configuration of supply chains requires extensive state support to draw in foreign firms, build up local suppliers and develop technological capabilities. Diversifying will not be an easy process. Industrial policy will have to play an active role in tandem with trade, neighbourhood and development policy. The update should acknowledge these links explicitly and commit to developing the necessary action plan.

By tackling both new challenges and longstanding weaknesses in Europe's industrial structure, the recommendations outlined above would improve the design and implementation of the Industrial Strategy. A range of other measures will be critical, such as the Digital Single Market Strategy and development of industrial data spaces, but are beyond this paper's scope. The Commission will now need to focus on mobilising the resources for implementation and ensuring that member states are aligned with the strategy's objectives, particularly in their Resilience and Recovery Plans.

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- ¹ García-Herrero, Alicia and David Martínez Turégano, "Europe is losing competitiveness in global value chains while China surges", *Bruegel*, 27 November 2020.
- ² Gordon, Robert J. and Hassan Sayed, "Transatlantic technologies: Why did the ICT revolution fail to boost European productivity growth?", *Vox*, 21 August 2020; Eurostat (2020), *The 2017 results of the International Comparison Program: China, US and EU are the largest economies in the world*.
- ³ European Investment Bank (2021), *Investment Report 2020/2021: Building a smart and green Europe in the COVID-19 era*, Luxembourg; The World Bank, "Research and development expenditure (% of GDP) – European Union, China" (accessed 23 March 2021).
- ⁴ European Investment Bank (2021), *op.cit.*
- ⁵ *Ibid.*
- ⁶ Claeys, Grégory and Maria Demertzis (2021), "The productivity paradox: policy lessons from MICROPOD", Brussels: Bruegel.
- ⁷ Thum-Thysen, Anna; Peter Voigt; Benat Bilbao-Osorio; Christoph Maier; and Diana Ognyanova (2017), *Unlocking Investment in Intangible Assets*, Brussels: European Commission. European Investment Bank (2020), *Financing the digitalisation of small and medium-sized enterprises: The enabling role of digital innovation hubs*, Luxembourg.
- ⁸ Benford, Jake and Frank Eich (2021), "From scale to purpose? The EU's support for startups in the global race for tech dominance", Berlin: Bertelsmann Stiftung.
- ⁹ Bjerkem, Johan and Marta Pilati (2019), "An Industry Action Plan for a more competitive, sustainable and strategic European Union", Brussels: European Policy Centre, p.30.
- ¹⁰ Mazzocco, Ilaria (2021), "Cheap Solar (Part 2): How Solar Manufacturing Got Its Chinese Characteristics", Chicago: MacroPolo.
- ¹¹ European Investment Bank (2021), *op.cit.*
- ¹² Mollet, Frederico (2021a), "When will the EU finally get serious about digitalising its businesses?", Brussels: European Policy Centre; Gordon and Sayed (2020), *op.cit.*
- ¹³ Pilati, Marta (2019), "A geographically fair EU industrial strategy", Brussels: European Policy Centre.
- ¹⁴ European Commission (2021), *European Economic Forecast: Winter 2021 (Interim)*, Institutional Paper 144, Brussels.
- ¹⁵ Eurostat, "Impact of Covid-19 crisis on industrial production" (accessed 23 March 2021); Orgalim (2020), "A 2021 under the sign of crisis", Brussels.
- ¹⁶ Mollet, Frederico (2021b), "Will corporate debt choke the post-COVID-19 recovery?", Brussels: European Policy Centre.
- ¹⁷ European Investment Bank (2021), *op.cit.*
- ¹⁸ Bjerkem and Pilati (2019), *op.cit.*
- ¹⁹ European Commission (2020a), *Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions: A New Industrial Strategy for Europe*, COM(2020) 102 final, Brussels.
- ²⁰ See Borges de Castro, Ricardo (2021), "Lessons from the battleground: EU strategic autonomy after the 'vaccine wars'", Brussels: European Policy Centre.
- ²¹ European Council (2020), *Special meeting of the European Council (1 and 2 October 2020) – Conclusions*, EUCO 13/20, Brussels.
- ²² Mollet, Frederico (2021c), "Bridging the political divides over industrial strategy", Brussels: European Policy Centre.
- ²³ European Commission (2020b), *A new vision for Europe's capital markets: Final report of the High Level Forum on the Capital Markets Union*.
- ²⁴ Lane, Nathan (2019), "Manufacturing Revolutions: Industrial Policy and Industrialization in South Korea"; Liu, Ernest (2019), "Industrial policies in production networks", *The Quarterly Journal of Economics*, Volume 134, Issue 4, pp.1885-1948.
- ²⁵ Pojuner, Isabella and Freya Pratty, "In numbers: Germany dominates European climate tech", *Sifted*, 09 March 2021.
- ²⁶ Mollet (2021c), *op.cit.*
- ²⁷ Bjerkem, Johan and Malcolm Harbour (2020), "Europe as a global standard-setter: The strategic importance of European standardisation", Brussels: European Policy Centre.
- ²⁸ Mollet (2021a), *op.cit.*
- ²⁹ Giorcelli, Michela, "How a Marshall Plan Program Boosted the Performance of Italian Firms for Decades", *ProMarket*, 20 September 2018.
- ³⁰ European Investment Fund, "EIF and the EC launch a Digitalisation Pilot for SMEs under the COSME Loan Guarantee Facility", 24 October 2019.
- ³¹ Mollet (2021a), *op.cit.*
- ³² See Aktoudianakis, Andreas (2020), "Fostering Europe's Strategic Autonomy – Digital sovereignty for growth, rules and cooperation", Brussels: European Policy Centre/Konrad-Adenauer-Stiftung; Hedberg, Annika and Stefan Sipka (2020), "Towards a green, competitive and resilient EU economy: How can digitalisation help?", Brussels: European Policy Centre.