Foresight within the EU institutions: The ESPAS analysis so far

The European Strategy and Policy Analysis System (ESPAS) brings together the various European Union institutions and bodies in a process of administrative-level cooperation designed to identify and analyse the medium- and long-term trends facing the European Union and their implications for policy-makers. This dialogue was established in the early 2010s as a means of promoting longer-term thinking in the EU policy process and encouraging the Union's various institutions to cooperate more closely in the field of foresight.

The structure and output of the ESPAS process to date were summarised in an EPRS Briefing, Foresight within the EU institutions: The ESPAS process so far, published in May 2020. This parallel ESPAS Briefing now looks at the substance of the analysis contained in the successive ESPAS Global Trends Reports to date, issued in 2012, 2015 and 2019, which attempt to identify the major shifts occurring at that time and the potential challenges which they pose for Europe.

Background

From the outset of its work, the ESPAS process has taken a broad approach to global trends analysis, looking at medium- and long-term trends across a wide range of political, economic, and social issues. The first, scene-setting, report was entitled Global Trends 2030: Citizens in an interconnected and polycentric world. It was drafted by the EU Institute for Security Studies (EUISS) for the ESPAS Steering Group and published in March 2012. The second report, entitled Global Trends to 2030: Can the EU meet the challenges ahead?, was drafted by the ESPAS Steering Group itself, completed in December 2014 and published in March 2015. The third report, Global Trends to 2030: Challenges and choices for Europe, was drafted by a Steering Group member, Florence Gaub, on behalf of the group as a whole, and published in April 2019. The 2015 and 2019 reports were specifically delivered as a resource for incoming EU decision-makers at the beginning of successive five-year EU policy cycles.

The three ESPAS Global Trends Reports and the wider work of the ESPAS process have already had an impact in enhancing the attention given to trends analysis and strategic foresight in the EU policy process. The current von der Leyen Commission has upgraded foresight, by including it explicitly among the responsibilities of Vice-President Maroš Šefčovič, who in turn has spearheaded several initiatives to enhance the role of foresight across that institution, including the creation of an internal European Commission foresight network and the issuing of a new annual Commission strategic foresight report, the first edition of which was published in September 2020. There is also a significant read-across between the major challenges identified in successive ESPAS Global Trends Reports and some of the policy priorities of the new Commission.

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This Briefing summarises the analysis presented in the 2012, 2015 and 2019 ESPAS Global Trends Reports. It traces shifts in perspective across five major areas - the environment, the economy, technology, society, and international governance. It finds both continuity and change over the decade, with some issues gaining in prominence and others fading into the background. It comes at a time when global events, notably the current coronavirus crisis, again underline the urgency of 'anticipatory governance', as well as the complexity of the challenge involved in creating a foresight culture across governmental institutions at all levels.

Core concepts in strategic foresight

A detailed look at the three ESPAS Global Trends Reports to date offers several insights into how strategic foresight has become more prominent within the EU institutions over the past decade. Each of the reports has offered a kind of 'tour of the future', informed both by imagination and by rigorous analysis. By applying a new conceptual framework, the reports have helped to familiarise the policy community in Brussels and more widely with some of the core concepts and methods of strategic foresight.

The conceptual framework has involved categorising and cataloguing the many issues that needed to be tracked and analysed. Although the three reports have organised their subject matter in different ways, they all have a common aspiration towards universality. In particular, the five key global trends identified in the 2015 report corresponded quite closely to the often-used 'STEEP' categorisation of social, technological, economic, environmental and political issues.

All of the reports have taken care to explain core concepts to the policy community. The 2019 report, for example, distinguished between **megatrends**, described as long-term developments; **catalysts**, which can speed up or slow down long-term trends over a shorter horizon (six months to five years); and **game-changers** - decisions now being taken which will determine the future. It also introduced a simple scenario matrix - distinguishing between desirable and undesirable outcomes (see Table 1).

Table 1: Good and bad scenarios in the 2019 ESPAS report

How do we ...	With judicious action:	With inaction:
Save the planet?	Up to 1.5°C warmer	Over 2°C warmer
Improve ageing?	Healthier lives	Growing healthcare burden
Manage new technologies?	Artificial intelligence enhances jobs	Artificial intelligence replaces jobs
Position Europe in the world?	Strong and cohesive Europe	Vulnerable divided Europe
Manage conflict?	Conflicts are contained	An unstable neighbourhood
Protect democracy at home?	Democracy recovers	Democracy decays
Reach equality?	Reduced inequality	Inequality and unrest

Each of the three reports was source-based and drew on consultation with a broad range of interested parties, both inside and outside the EU institutions. They were then written with a strong awareness of the need to communicate their basic propositions and findings to busy decision-makers. This requires clear, well-reasoned analysis to be presented in a digestible and easily accessible format. This communications challenge also meant that the reports became shorter, more focussed, and more digitally accessible over time. Finally, a strong and simple

'philosophical' conviction underlay the preparation of the successive reports: the belief that the European Union had, and still has, the possibility to shape its own future.

2030: The major themes

How have perceptions of the most important issues evolved between 2012 and 2019, across the five areas of politics and international relations (also referred to as geopolitics), the economy, technology, the environment and society? In short, there has been a great deal of continuity in the headline concerns, but also significant shifts in perception on some issues, with several new themes emerging.
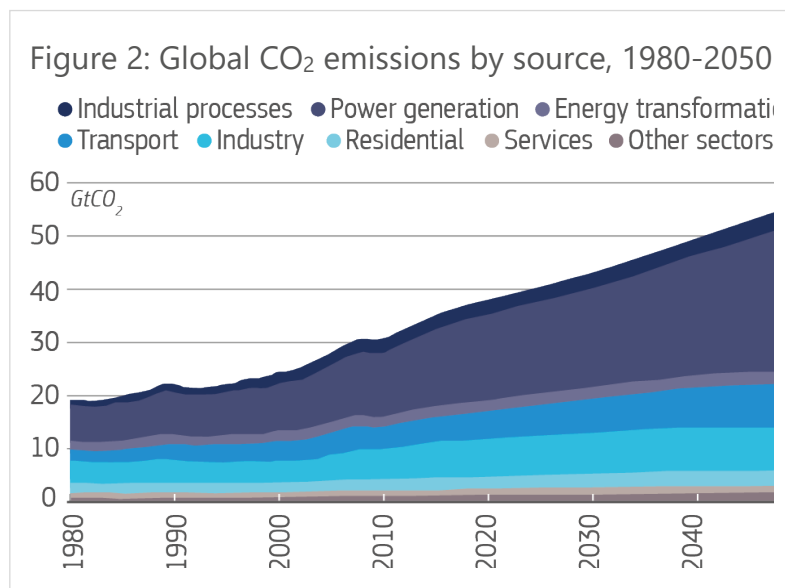
Judgements have evolved as events have unfolded. This does not imply a failure of foresight; rather, it underlines the need for a capacity of continual assessment of changing circumstances. The past decade has had its share of surprises, disruptions and shocks.

The 2012 Global Trends Report portrayed a world that was beginning to emerge from a deep financial crisis whilst confronting major structural changes. It talked of a third industrial revolution reshaping established business models and market shares in the globalised economy, with social stability shaken in many places by processes such as ageing and the rise of inequalities, in turn taking place against the backdrop of a return of power politics. Some events gave grounds for cautious optimism, such as the signature of the Paris Agreement on climate change and the Iran Nuclear Deal (JCPOA). But these were quickly followed by disruptions, such as the Paris terrorist attacks and the Russian annexation of Crimea. Setbacks, together with an acceleration of climate change, coloured the analysis of the second report in 2015. This report diagnosed three revolutions affecting Europe, one economic and technological, one social and democratic, and one geopolitical. In response, the European Union needed to act on several fronts, to embrace innovation, deal with inequalities, and foster strategic partnerships.

Not long after the second report appeared, a number of major developments confounded the conventional wisdom among political analysts. The refugee crisis came to dominate the agenda. The UK then voted to leave the European Union, an unprecedented reversal for the Union. A radical right populist became President of the United States, leading to US withdrawal from several multilateral agreements. The West came to realise the fragility of democratic processes in the face of large-scale manipulation and disinformation utilising new media.

Environment

The **climate question** gained in urgency across the three ESPAS reports, reflecting increasing public awareness of the issue. By the 2019 report it had become the top concern. A 2°C rise in global temperature above pre-industrial levels was seen to have a potentially huge and disruptive impact across the board, and the perception was that this was becoming increasingly difficult to avoid. There was a significant risk that climate change would have a negative impact on already slowing global growth, and a conviction that only joint efforts by Europe, the United States, China, and other major economies could successfully address this challenge.

Figure 2: Global CO₂ emissions by source, 1980-2050
- Industrial processes ● Power generation ● Energy transformation
- Transport ● Industry ● Residential ● Services ● Other sectors

The successive ESPAS reports have drawn attention to the rapidly accumulating evidence of the **impact of climate change**. The pressure on resources has growing, bringing problems such as water scarcity increasingly to the fore. Disruptive consequences have become clearer, including droughts, flooding, and extreme heat.

The reports have drawn attention to the broader societal consequences of climate change, including greater poverty and greater pressure towards migration from distressed areas. The 2019 report notes that 'climate change will aggravate water and food insecurity in conflict prone areas, such as the Middle East and North Africa.' The report also notes that the problem is often one of accessibility, rather than availability, of resources.

The analysis also suggested that **energy consumption** would continue to rise globally, making the transition towards renewables more urgent. But as renewables are not expanding fast enough to meet demand, at least in the medium term, the prospect has been for greater, and potentially aggressive, competition for energy resources.

Economy

The past decade has seen tension between the advance of open multilateral trade and growing pressure for trade barriers; in effect between globalisation and 'slowbalisation'. Against these cross-pressures, global political institutions, notably the World Trade Organization (WTO), have made little real progress. A middle ground may be emerging, involving managed globalisation and an increasing focus on the distribution of the gains of international trade. The concept of international exchange as a zero-sum game has become more widespread, with a growing vulnerability on the part of the **rules-based international order** more generally.
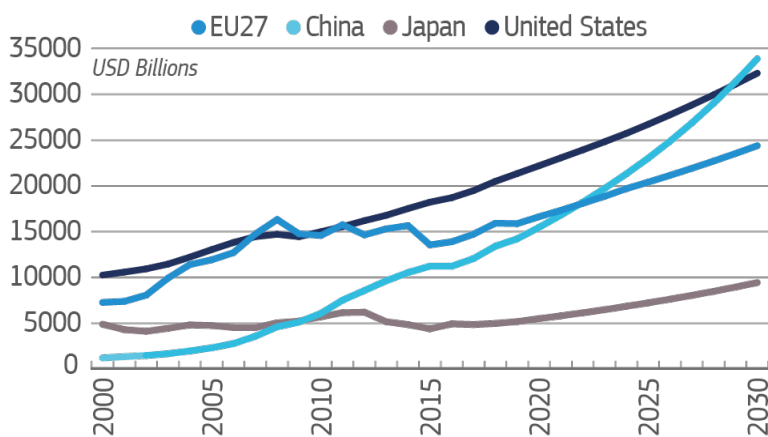
Stresses on the institutional underpinning of international trade also reflect long-term shifts in economic power among major actors. China is expected to be the world's largest economy by 2030, ahead of the US, with the EU in third place (see Figure 3). There is no automatic

correlation between shifts in economic power and shifts in political power; but the latter is influenced by the former. The full implications of the growth of the Chinese economy are still to be worked out.

The 2015 report argued that, as **connectivity** grows and global institutions are challenged, 'the defining components of power [would] continue to change'. The nature of power would move beyond classic notions of economic strength, resources and military capabilities. These would remain essential, particularly in the scenario of growing transactionalism and looser institutional structures. Knowledge and technology would also become fundamental components of power. A country's power would reflect how much influence it could exercise on decisions taken by other states. Nevertheless, as the 2019 report noted, multilateral institutions would remain 'important frameworks for interaction'.

The 2015 report pointed out that a much higher level of interaction between countries meant more need for global **public goods** across several sectors, from security and trade to the mitigation of climate change. Yet experts were already observing early in the decade that the capacity of multilateral institutions to provide such goods was lagging. This capacity gap has been linked to discontent feeding nationalist discourses. The choice seemed to lie between reforming the international economic order and allowing it decay, with it being unlikely that the status quo could be maintained.

Figure 3: Nominal GDP 2000 to 2030 (projected), EU and selected countries

Data source: IMF Economic Outlook.

The relationship between growth and inequality has been complex. The 2015 report identified a growing middle class at global level. This trend was driven by China and other emerging economies, where huge numbers were able to rise out of poverty. This in turn prompted hopes of a push for democratisation in China, but by 2019 it was clear that these hopes were not being realised.

In the West, by contrast, there was seen to be a trend towards greater inequality: the **squeezed middle**. This shows how trends in different areas interconnect: a social outcome is linked by many to globalisation, and in turn is seen as a factor in the rise of populist movements.

Technology

The successive reports all insist on the need to **focus on the opportunities** offered by technological innovation, and not just the challenges. High levels of education, connectivity and prosperity could help Europe take advantage of technological change, especially if we were to establish a carefully calibrated regulatory eco-system. Digital technology impacts almost every sphere of activity (Figure 4). It has the potential to mitigate problems linked to ageing, urbanisation and climate change; but it can also lead to disruption of the labour

market. The major challenge is that Europe lags behind the US and China in key areas, and Europe cannot afford to absent itself from the race for breakthrough technologies.

A reflection of the technological transformation in the past decade is the fact that the terms **blockchain** and **quantum computing** were first mentioned in the 2019 report. Connectivity has grown, the internet has allowed more and more people to communicate, and better infrastructure has allowed them to move faster, further, and more frequently. The possibilities created by modern technology have generated huge opportunities to improve lives.

By 2019, it was clear that **artificial intelligence** and careful analysis of big data could promise game-changing new insights. There was a growing perception that machine intelligence could rival human intelligence and open the way to new breakthroughs.

Technology is also seen to have an increasingly important role in safeguarding the environment. Technological innovation has the **potential to mitigate the effects of climate change**, not least by reducing carbon footprints.

Figure 4: Digital technologies affect everything
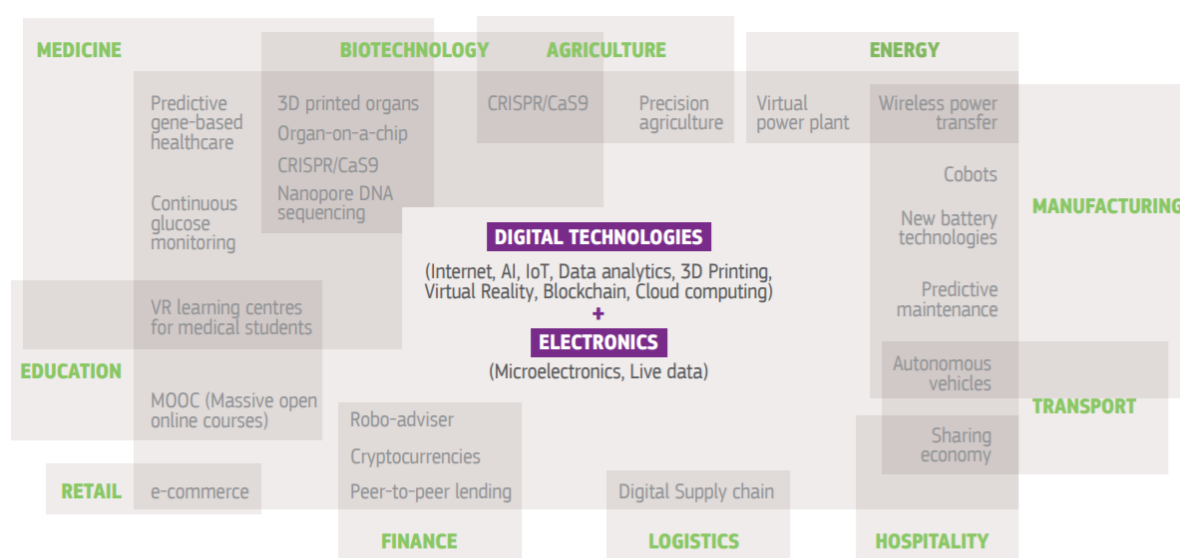
Source: European Political Strategy Centre (EPSC), European Commission, based on work by DG RTD.

The 2019 report sketched the dimensions of the coming technological **transformation**: as follows 'the way we work, fight, age, communicate, solve problems, travel, trade, exchange information, live in cities, solve crimes, do business, and connect to our loved ones will all be changed.' The impact on governance, employment and education is now expected to grow, as the digital economy becomes the economy. We have also learned that digitalisation can be used for malevolent purposes. Cyber-security has emerged as a critical issue. Lethal automated weapons may fundamentally alter the nature of warfare. There is greater awareness that technology can be a tool for dictatorship, as well as an enabler of democracy. There has been a shift from empowerment of the individual to empowerment of the state.

This technological revolution has brought a greater focus on an **investment gap** in Europe, an element which has featured in each report. Few European companies are among the top R&D spenders in the world, which are generally American or Asian companies. This represents a major vulnerability for Europe, pointing towards increasing dependence on others. As a result, Europe needs to mobilise investment at the technological frontier.

Digitalisation can also create new **employment** opportunities. The 2019 report analysed that automation would both create and destroy jobs. Reskilling the workforce is a crucial element in the continuing transition to the economy of the future.

Society

The successive ESPAS reports increasingly stress the importance of building resilience to societal challenges. It is also increasingly clear that resilience starts at home. Europe's embedded culture of democracy, underpinned by the rule of law and by codified individual rights, remarkably, is now contested, even from within. As the 2019 report points out, democratic renewal and stronger social cohesion promise better economic outcomes and greater resilience to external threats: 'the more equal our societies are, the better prepared we are to face the challenges of the future.'

Figure 5: Global population projections

Region	Population (millions)			
	2 017	2 030	2 050	2 100
World	7 550	8 551	9 772	11 184
Africa	1 256	1 704	2 528	4 468
Asia	4 504	4 947	5 257	4 780
Europe	742	739	716	653
Latin America and the Caribbean	646	718	780	712
Northern America	361	395	435	499
Oceania	41	48	57	72

Source: World Population Prospects: The 2017 Revision, United Nations.

The issue of inequality in the West was addressed in all three reports. **Inequalities** within societies have continued rising since the 2008 global financial crisis. The wealthiest one per cent of the world's population is expected to own two-thirds of global wealth in 2030, compared to half at the moment. Unemployment among low-skilled workers has been rising as automation has progressed. This has undermined the traditional **social contract**.

The 2012 report noted that the advance of **women's rights** was one of the positive features associated with the rise of a global middle class. Subsequent reports did not take up this theme, but instead pointed out that different kinds of inequalities reinforced each other. From a global perspective, the favourable trend at the start of the decade has flagged.

Populist parties and movements are likely to continue to attract support, raising the possibility of the emergence of authoritarian governments. In the ESPAS reports, **populism** was mentioned more often in 2012 than in 2015, but was treated much more extensively in 2019.

Demographic data indicate that the world population will be older by 2030, especially in the West. The population of Europe will be relatively smaller and more elderly, compared to other continents (Figure 5). Health and healthcare policies need to prepare for this. 'Ageing well' will be an important societal goal. The digital revolution has changed the way societies and the economy function. Huge opportunities have emerged, including **productivity and welfare gains**. The empowerment of individuals has been part of the dividend. More recently, the emergence of surveillance and privacy concerns have modified this picture.

Urbanisation will continue, leading to the creation of more medium-sized cities, dependent on technology for connectivity. Societies are likely to be more literate; up to 90 % of world population may be literate by 2030. Cities will also be the main destinations for migrants, and

thus the main arena for integration and the realisation of the benefits of diversity. Migration has been addressed in the successive ESPAS reports, and became a strong focus after 2015. The increasing role of metropoles exemplify the '**poly-nodal'** nature of the globalised world: successful hubs are able to attract investments and skills, generating innovation and political influence beyond their size.

Geopolitics and global governance

In respect of international relations, the principal development across the successive reports is a greater emphasis on the need to enhance the EU's **strategic autonomy**. Concerns about threats to European security have grown. While the 2012 report relied on optimistic assumptions in this regard, the 2019 report suggests that 'we will have to accept that conflicts will be part of our future'. A new constellation of defence and security threats is emerging, prompting reflection on what capacities and capabilities are necessary for Europe. The first mention of the term 'strategic autonomy' came in the 2019 report. This was a logical continuation of the concerns discussed in the earlier reports about limitations on Europe's ability to shape the international environment in which it was operating.

By 2019, one worrying scenario was that the US could become so absorbed with the rise of China that it might disengage from Europe and the North Atlantic Treaty Organization (NATO). Although Russian power has declined, it continues to be seen as a security threat in Europe. A US withdrawal would require Europe to significantly step up its defence preparedness, both within and outside NATO. Bilateral and multilateral relationships remain important, but the report casts strategic autonomy not as an option, but rather as a necessity for Europe.

The three reports emphasise changes in the nature and **distribution of international power**. A shift in relative economic weight – towards Asia – is expected to continue over the coming decades. Most projections suggest China will be the world's biggest economy by 2030. The growth of other emerging powers has also contributed to speculation about a reframing of the international order. The second and third reports highlight the emergence of a **G3**: the EU, China, and the US. China's leap forward has eclipsed the progress of other emerging countries, and there is less focus now on BRICS (Brazil, Russia, India, China and South Africa) as a collective; the term does not occur in the 2019 report. There is now a greater awareness too of differences and antagonisms between India and China.

The 2012 report spoke of a 'polycentric' world, stating that 'no single world power will play a hegemonic role.' This theme was taken up in the 2015 report, which noted how the rise of China and the emergence of other powers in Latin America and Africa would put strains on the post-war multilateral order. Against this backdrop, the EU and the US had a common interest in strengthening the global system, and in finding multilateral solutions to global challenges. The 2019 report developed this analysis further by introducing the concept of a **'poly-nodal' world**,' as distinct from a multipolar or polycentric one. Nodes are 'points where pathways relate to each other'. As technology dramatically increases connectivity around the world, the international order of the future will depend more on transactions, flows and relationships between actors than on institutions. The unipolar moment of the United States has passed, and Europe may become less influential.

Over the decade, shortcomings of **global governance** have become increasingly apparent. Global institutions remain in place, but hopes for necessary reforms have not been met. If opportunities to reform continue to be missed, the risk increases that the global framework will unravel. The erosion of international rules seems to be a paradoxical outcome at a time

when the world is becoming more interconnected and interdependent. It paves the way for two very different scenarios: one of a more fragmented and more confrontational international order; the other of a renaissance, based on the realisation that the global nature of major challenges makes global cooperation essential.

The reports identify another challenge to the status quo, beyond that posed by emerging powers. This is the prospect of a major shift in the political consensus within traditional powers, leading to large-scale reorientation of their own goals and strategies. An increase in tensions over the past decade has coincided with an increase in defence expenditure, particularly in the US and China. Against a background of instability in neighbouring regions and continuing problems of terrorism and political violence, the reports urge stronger action to protect Europe's security and stability.

Trends are interconnected

The perceived need to break down silos between fields of endeavour is a recurring feature of ESPAS discussions. The successive reports have stressed that trends interact with each other, without regard to sectoral or national frontiers. The present coronavirus pandemic is a powerful demonstration of the interdependence of trends on a global level. Such developments were foreshadowed in the 2015 report, which noted that an uncontrolled and global pandemic could have systemic impacts far beyond healthcare: 'this could impact the global economy … essential services could be disrupted, including health, transport, banking and basic resources. Competitions for essential resources could lead to tensions within and between countries.' So it proved, as a health epidemic has given rise to severe social and economic disruption with deep and lasting effects.

Exploring these effects and identifying the components of a successful recovery strategy will be a core concern of foresight work within the EU institutions, and more widely, for some time. The strategic planning capacity of various jurisdictions, including ESPAS's analysis of global

trends, built up over the past decade will be put to the test, and analytical techniques such as horizon-scanning, stress-testing, assumptions checks, and back-casting will now become more relevant than ever.