Ten issues to watch in 2019

IN-DEPTH ANALYSIS

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This EPRS publication aims to offer insights and context on ten key issues and policy areas that are likely to feature prominently on the political agenda of the European Union in 2019. It was compiled and edited by Isabelle Gaudeul-Ehrhart of the Members' Research Service, based on contributions from the following policy analysts: Didier Bourguignon, Gisela Grieger, Silvia Kotanidis, Tambiama Madiega, Nóra Milotay, Maria Niestadt, Eric Pichon, Magdalena Sapała, Marcin Szczepanski, Laura Tilindyte, Jana Titievskaia and Sofija Voronova. The cover image was produced by Samy Chahri.

Further details on the progress of on-going EU legislative proposals, including all those mentioned in this document, are available in the Parliament's Legislative Train Schedule, at:

http://www.europarl.europa.eu/legislative-train/

Executive summary

This annual publication offers up-to-date insight from policy analysts in the European Parliamentary Research Service on ten key issues and policy areas that are likely to feature prominently on the political agenda of the European Union (EU) in 2019. Each of the ten contributors presents the state of play on the issue, highlights what the European Union is doing and the specific role of the European Parliament, considers possible interactions with the other issues, and looks to the future to identify some of the major staging posts ahead.

This new edition covers three clusters of issues. The institutional cluster starts with 'A new European Parliament – A new European Commission', focussing on the institutional implications of the new political landscape which citizens will define when they vote in the European elections in May 2019. It suggests the ways the new European Parliament may differ from the current and previous ones, and looks at how the new European Commission will be appointed. Next, this cluster puts the spotlight on 'The way forward' for a Union of 27 Member States, looking at the direction of the current debate and the future beyond Brexit. Finally, the 'Future financing of the Union' presents the content and objectives of the Commission's proposals for the financial framework for the next seven years, and the Parliament's ambitions and position in the negotiations.

Four geopolitical issues form the second cluster: first, the relationship between the European Union and Africa – referred to by the President of the European Commission in his 2018 State of the Union speech as our 'twin continent'. This section looks at the push for stronger relations and explores potential partnerships. Then, 'Trade wars' takes stock of current relations between Europe, China and the United States and addresses the political, economic and legal implications and the EU's response in this context. Next, 'Internal security' reveals how crime is increasingly becoming digital in nature and how the EU is dealing with the issue. Lastly, environmental and climate challenges are studied from an unusual perspective, albeit one constituting the largest part of the surface of our planet, namely the oceans. 'Towards a policy for the oceans' looks at the benefits of, and pressures on, the oceans, as well as at EU and global policies in this area, and at likely developments in the coming year.

Technological issues close the circle of these 'Ten issues to watch in 2019', starting with a reflection entitled 'From artificial intelligence to collective intelligence', which explores this emerging topic and the role of the EU in 2019 and beyond. This is followed by a piece on 'Electric mobility', looking at the growing market for electric road vehicles and EU action to support it. Finally a more general contribution on 'Digital transformation' takes stock of this omnipresent phenomenon and looks at how best to build a digital economy and shape the legal, ethical and regulatory framework it needs.

Complementing the two previous issues in this annual series, and the extensive offer of EPRS publications in general, this 2019 issue of 'Ten issues to watch' seeks to inform Members of the European Parliament and the broader public, and to stimulate reflection and discussion at the start of a decisive year for the future of Europe and its citizens.

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Introduction

The start of any new year brings with it a sense of hope and anticipation, a determination to make and keep resolutions, a sense of new beginnings and new possibilities, and a feeling of curiosity in the face of the unknown. That was certainly the case in 2017 and in 2018 for the first two editions of this annual publication. And 2019 seems no less new, special and demanding, for many reasons.

First, within just a few months, the European political landscape will look very different in many ways: in May, citizens will vote in the European elections, choosing a new European Parliament, a choice that will in turn determine a new European Commission; furthermore, a European Union of soon 27 members will have to find its way forward in its new configuration; and, with the new multiannual financial framework, the Union will be defining the financial means available to it over the next seven years to take its vision forward and to make it a reality for its 450 million citizens.

Second, the world is changing: Europe's relations with Africa need to be reinvented; our planet and its environment are threatened on land and in the oceans, requiring European and global responses; and the international scene sees a questioning of multilateralism and a tendency towards trade wars.

Third, beyond the structural changes impacting the European Union, the economic and social fabric of society as a whole is changing dramatically and at an unprecedented speed. Digital transformation is not only a technological and economic issue – it also interacts with that social fabric and affects more and more aspects of citizens' lives.

Whether political, geopolitical or technological, these issues deserve special attention in their own right. That is why the European Parliamentary Research Service (EPRS) has asked a dozen of its policy analysts to outline the latest developments in their respective areas, explain the role of the European institutions, and provide some insights into what can be expected in the months and year ahead.

To obtain a clearer picture of the European Union in 2019 and a more profound understanding of the dynamics in play and the challenges ahead, it is important to focus, not only on each one of the issues individually, but also on how they inter-relate, and how they affect and are affected by each other. The complexity of the inter-relationships is considerable, as hinted at by the image on the front cover of this publication. This deeper level of analysis is reflected in this paper by the special attention brought to the relation each of the ten issues has with the other nine. The nature of the interactions varies from one issue to another: not surprisingly, institutional and budgetary developments impact on all of the others, but some less expected interactions are also worth exploring, such as digital transformation, the EU's relations with Africa or internal security.

We hope that you will enjoy reading this latest edition of 'Ten Issues to Watch' and that it will fuel your reflections and stimulate your curiosity as you explore the challenges and opportunities of the coming year.

Étienne Bassot

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1. A new European Parliament – A new European Commission

How the new European Parliament will be different

The European elections that will take place between 23 and 26 May 2019 will be the first to be held following the departure of a Member State from the EU – the planned date for Brexit is 30 March 2019. As a result, after decades of growth in both EU membership and the number of members of the European Parliament, the Parliament will become smaller – the number of members for 2019-2024 is to be reduced from 751 to 705. Of the 73 seats remaining vacant after Brexit, 27 will be redistributed and the number of elected representatives in some Member States will increase slightly. Should the United Kingdom still be a member of the EU at the beginning of the new parliamentary term (possible in case of a unanimous European Council decision to extend the negotiation period or a UK revocation of its Article 50 TEU notification), the number of members will remain unchanged (until UK withdrawal in the former case).

In addition to a change in size, observers also expect a more fragmented Parliament, given the trend of declining electoral support for 'traditional' political parties and the surge of new political forces at both ends of the political spectrum. The combined share of the biggest political groups in the Parliament – the Group of the European People's Party (EPP) and the Group of the Progressive Alliance of Socialists and Democrats (S&D) – amounted to 66 % during the 1999-2004 parliamentary term, but has been on the decrease since then and dropped to 54.8 % after the 2014 elections. It is widely expected to shrink somewhat further, accentuating the need to construct alliances across party lines in order to build majorities.

These developments are likely to have implications for the political groups, in particular after the departure of the 73 British members following Brexit. Currently, 19 of the 74 members of the European Conservatives and Reformists Group (ECR), and 19 out of 43 members of the Europe of Freedom and Direct Democracy Group (EFDD), were elected in the UK. As far as the number of political groups in the Parliament is concerned, this has fluctuated between 7 and 10 since the first direct elections (1979). To form a political group, a minimum of 25 members elected in at least one quarter of the Member States (currently seven) is required (Rule 32 of the Parliament's Rules of Procedure). One of the biggest question marks looming over the 2019-2024 Parliament is the future alignment of the *En Marche* movement led by French President, Emmanuel Macron. While he was long reluctant to align his party with any of the European political families, recent reports have suggested possible alignment with the Alliance of Liberals and Democrats for Europe (ALDE) Group, with potentially important consequences. The first part-session of the new Parliament will be held on 2-4 July 2019, when the Parliament will also elect its leadership – its President, Vice-Presidents and Quaestors.

How the new European Commission will be appointed

Since its very inception, the European Parliament has had the power to dismiss the European Commission (motion of censure). Later, its role in the process of appointing a new Commission gradually increased. The Maastricht Treaty (1992) endowed the Parliament with the power to approve (and, therefore, also to reject) the Commission as a body before it took office, and required that Parliament be consulted by Member States before they nominated the person to be appointed as Commission President. Currently, the candidate for the President of the Commission is to be proposed by the European Council, but the latter needs to do so while 'taking into account' the parliamentary elections and 'after having held the appropriate consultations' (Article 17(7) TEU). The President is elected by the Parliament by a majority of its component members (376 of 751 votes, or 353 of 705 post-Brexit).

Probably the most powerful recent illustration of the ever-stronger link between the investiture of the Commission and the Parliament was the *Spitzenkandidaten* process, which led to the election of Jean-Claude Juncker as Commission President after the 2014 elections. The Parliament remains firmly committed to repeating the process in 2019 and to making it the 'norm'. In its resolution of 7 February 2018, the Parliament affirmed its support for the procedure, and stressed that, by not adhering to the lead candidate process, the European Council would 'risk submitting for Parliament's approval a candidate for President of the Commission who will not have a sufficient parliamentary majority'. The Parliament also made clear that it stands 'ready to reject any candidate … who was not appointed as a *Spitzenkandidat*'. While the Commission and its President have equally expressed strong support for the *Spitzenkandidaten* procedure, the European Council has emphasised that it has the autonomous competence to nominate the candidate, and insisted that 'there is no automaticity in this process'.

After the election of the Commission President, the Commission as a body is subject to a vote of consent by the Parliament (Article 17(7) TEU). It is the responsibility of the President-elect to distribute portfolios among the Commissioners-designate, who are proposed by national governments. In 1994, the Parliament started holding parliamentary hearings of Commissioners-designate before giving its consent. Such hearings aim to evaluate the candidates' 'general competence, European commitment and personal independence', as well as their 'knowledge of their prospective portfolio and their communication skills' – 'with particular regard to gender balance' (Annex VI of the Parliament's Rules of Procedure). While the Parliament has no power to reject individual Commissioners-designate, it may, in the run-up to the consent vote, exercise political pressure regarding individual candidates or the portfolios assigned to them, and has done so in the past. After the hearings, and following the vote of consent, the new Commission is appointed by the European Council. The new Commission's term is due to commence on 1 November 2019.

It remains to be seen what the political priorities of the new Commission and its president will be, and how they will translate into the new cycle of multiannual and annual programming, including the Commission's annual work programme (CWP) for 2020. In this regard, the 2016 Interinstitutional Agreement on Better Law-Making commits the Commission, Parliament and the Council to interinstitutional cooperation. Upon the appointment of the new Commission, the said institutions are to 'exchange views on the principal policy objectives and priorities of the three institutions for the new term', and to conduct dialogue both before and after the adoption of the CWP.

Expected timeline

2019

23-26 May
EP elections

2-4 July
1st part-session of the new Parliament

July – beginning September
Member States propose members of the Commission

End of October
(21-24 Oct. session)
EP vote of consent on the new Commission

1 November
New Commission takes office

End of June
European Council proposes a candidate for Commission president

July
(15-18 Jul. session)
Election of the Commission president by Parliament

European Council formally appoints the Commission

September-end of October
Parliamentary hearings of Commissioners-designate

November-December
Exchange of views on multiannual priorities; Commission Work Programme 2020

Source: EPRS

2. EU-27 – The way forward

The year 2019 is likely to be crucial in determining the direction in which further EU integration will proceed. Two events may act as a catalyst for this process: Brexit and the European Parliament elections. In particular, the latter will necessarily draw on the on-going discussion about the future of Europe.

The direction of the current debate

A serious reflection on the future of the EU has been taking place not only at an institutional level, but also in academia and in broader political fora. Although hints that such debate was needed pre-date Brexit, they intensified after the UK referendum on EU withdrawal in June 2016. With the Bratislava declaration in September 2016, EU Heads of State or Government took a clear stance in favour of the unity of the EU-27, delivering a 'roadmap' of specific actions for priorities, such as migration and the social dimension of the EU, and starting a reflection on the roots of disaffection for the EU cause. With the Rome declaration in March 2017, on the occasion of the 60th anniversary of the Rome Treaties, the EU-27 leaders made a solemn pledge for 'unity and solidarity'. It also marked the appearance of the idea of integration at different speeds and with different intensities, while 'moving in the same direction'. The next solemn occasion, when a future strategy until 2024 is expected to be laid out, is the informal meeting of EU leaders in Sibiu on 9 May 2019, the anniversary of the Schuman Declaration, but also just a matter of weeks before the 2019 European elections.

The first EU institution to make concrete proposals in this respect was the European Parliament, with two resolutions in February 2017 suggesting institutional adjustments to relaunch the European integration process. The first resolution suggested exploring the unused potential of the Lisbon Treaty (including increased use of qualified majority voting and reduced Council configurations). The second one envisaged more substantial changes to the institutional architecture (notably the designation of EU finance and foreign ministers, and a reduction in the number of Commissioners).

With its white paper of March 2017, the Commission identified what may be considered five possible 'working methods' for the future. The white paper has not yet received an official reaction from the European Council, but has put several key questions on the table, most notably the possibility of EU Member States integrating at different speeds. This option was welcomed with interest in 2017 by the leaders of France, Spain, Italy, Germany and the Benelux countries and is likely to be discussed as a possible working method in the coming years. Visegrad countries, however, while confirming their commitment to the European integration process and to the internal market, are suspicious with respect to this possibility, and underline the need to avoid disruption of the EU.

In trying to predict the future direction of the EU, one cannot overlook the dynamics of the Franco-German relationship, as this gives an important indication of future developments, even though it is not the only source fuelling the 'European engine'. President Macron and Chancellor Angela Merkel, who had set out their visions respectively with the Sorbonne address in September 2017 and in an interview with the *Frankfurter Allgemeine Sonntagszeitung* in June 2018, made shared commitments through the Meseberg Declaration on 19 June 2018. This marks the convergence of these two leaders on several issues such as the migration agenda, with a strengthening of the common European asylum system, the establishment of a genuine European border police, EMU and the establishment of a euro-area budget.

The European Parliament has offered a democratic forum for a high-profile exchange of views, with the Parliament's President, Antonio Tajani, inviting Heads of State or Government to take part in a series of (now monthly) 'Future of Europe debates' during Parliament's plenary sessions. These debates, running for the whole of 2018 and beyond, have revealed interesting points of convergence, such as on the completion of EMU, defence of the European social model, support to free and fair trade, and a common strategy for climate change. They have also highlighted divergent

views in other areas, such as migration, taxation and banking union. In addition to the several policy or institutional suggestions advanced by EU leaders or institutions, a broader issue likely to appear in the continuing debate is that of protection of EU values, and the political and democratic development of the EU.

Although at present there seems to be little appetite for Treaty reforms, there is a widespread view that some sort of change is needed in the way the EU has functioned until now. The 2019 elections to the European Parliament – whose composition will be modified due to the UK withdrawal from the EU (see issue 1) – will offer a privileged platform for openly discussing the future direction of the EU. The concrete feasibility of reforms will depend highly, however, on the political composition of the European Parliament. In this respect, the expected rise of anti-establishment parties across the EU, which might not be willing to reinforce the EU institutions and relaunch EU policies, could make any meaningful attempt difficult to implement. In a broader perspective, the EU, particularly on the occasion of the 2019 European elections, needs to find a positive narrative in order to reignite the European project.

Beyond Brexit

The United Kingdom's withdrawal from the EU is likely to bring a change in the way in which 'political balances' within the Union are put together. This may mean that Member States will need to be open to forging new alliances on individual policy matters, for example by seeking common ground beyond the usual political or regional alliances that have crystallised over the past decades. If Brexit takes place as expected, negotiations on the future EU-UK trade relationship could begin. Possible models suggested include the free trade agreement (FTA) model, such as the EU-Canada Comprehensive Economic and Trade Agreement (CETA), the Turkey model (i.e. a customs union), and the World Trade Organization (WTO) model. The FTA model would appear most closely to respect the political red lines initially put forward by the UK. Similarly, the future foreign policy arrangement will need to be defined, for instance in the form of an association agreement.

The political declaration setting out the framework for the future trade relationship establishes the parameters of a broad and deep partnership in, amongst others, the areas of trade and economic cooperation. The political declaration also envisages the eventual replacement of the backstop solution for Northern Ireland by a subsequent agreement establishing alternative arrangements to ensure the absence of a hard border. The EU and the UK would treat one another as single entities on sanitary and phytosanitary (SPS) issues, which would be of particular interest to farmers. As set out in the withdrawal agreement, after Brexit, the UK and EU would initially remain in a de facto customs union. At the same time, the political declaration acknowledges the sovereignty of the UK and the development of an independent UK trade policy in the future. At the time of writing, the withdrawal agreement and the accompanying declaration have yet to be approved by the UK Parliament.

In terms of foreign policy and defence, it is clearly in both parties' interests to retain close cooperation. As a significant European military power, Britain's third-party participation in EU defence initiatives is under discussion. With the departure of the UK, the EU will lose one of its two permanent seats in the UN Security Council. Nevertheless, Brexit may allow the EU to advance faster on its defence cooperation and, in some areas of foreign relations, to become stronger.

3. Future financing of the Union

The year 2019 is the last but one in the current multiannual financial framework (2014-2020) and the preparation of the EU's post-2020 financial plan is already under way. In May 2018, the Commission tabled its proposals for the 2021-2027 multiannual financial framework (MFF) and for a new system of own resources, the expenditure and revenue sides of the budget, respectively. A series of further legislative proposals for new and continued spending programmes and funds under the next MFF (known as sectoral regulations) followed, resulting in the EU entering into crucial negotiations not only on financial issues, but also on its future priorities and vision of action for the next decade.

Although all these legislative proposals are often referred to as the 'MFF package', they follow different procedures, with different roles for the Parliament and the Council. While the Parliament's consent is necessary before the Council can adopt the MFF Regulation (Article 312 TFEU), it is only consulted by the Council before adopting the Own Resources Decision (Article 311 TFEU). The sectoral regulations in turn are agreed under the ordinary legislative procedure, with the Parliament acting on an equal footing with the Council (Articles 289 and 294 TFEU). In addition, although, according to the Treaties, the European Council 'shall define the general political directions and priorities' of the Union, and 'it shall not exercise legislative functions', experience of the last MFF negotiations shows that it plays a decisive role in taking decisions, including on the figures and on many detailed aspects of the spending programmes. Reaching agreement is exceptionally further complicated this time by the overlapping change of the political terms of the Parliament and the Commission. In order to avoid possible resulting delays in the negotiating process and in the start of the implementation of the spending programmes, the Commission and the Parliament called for a swift agreement on the MFF ahead of the May 2019 European elections. However, this goal was dashed by the European Council's decision at the December summit to continue work at the Council level with a view to achieving an agreement only in autumn 2019.

The Commission's proposal: content and objective

The Commission's proposal for the 2021-2027 MFF was built on the broader debate on the future of Europe and its finances, the challenges created by the economic crisis, the migration crisis and terrorist threats as well as the consequences of the UK withdrawal from the EU. Establishing a new MFF was an opportunity to take account of the new political priorities set out by the Member States in the Bratislava Declaration in September 2016 and the Rome Declaration in March 2017 and translate them into actions and financial means to realise them. The Commission also had a chance to modernise the EU budget, improve its agility, enhance areas that offer real European added value, simplify the spending procedures and, last but not least, reform the system of own resources.

All these aspects are, to some extent, reflected in the Commission's proposals. Overall, the proposed MFF totals €1 134 583 million (in commitments, 2018 prices) over the 2021-2027 period. It is equivalent to 1.11 % of EU-27 gross national income (GNI) and represents a slight decrease in comparison with the current MFF's 1.16 % share of EU-27 GNI (i.e. Brexit-adjusted). On the expenditure side, the Commission proposes to give more funding to such areas as the single market, innovation and research, environment and climate action, migration and border management. By contrast, cuts were proposed for cohesion policy (-10 %) and the common agricultural policy (-15 %) (see chart 1). For the first time, the MFF proposal includes a dedicated budget for security and defence and for instruments supporting European monetary union. The proposal includes improved and new instruments making the budget more flexible and able to respond quickly to unforeseen demands. Moreover, the Commission proposes new measures to ensure that future EU spending is protected from risks linked to generalised deficiencies as regards the rule of law in the Member States. On the revenue side, the Commission has simplified and rationalised the existing

own resources, proposed three new own resources linked to EU policies and outlined a mechanism for gradual elimination of all correction mechanisms (known as rebates). These changes could help to solve the issue of the Member States focusing on securing 'fair return' from the EU budget and trigger some change in the way national contributions are perceived.
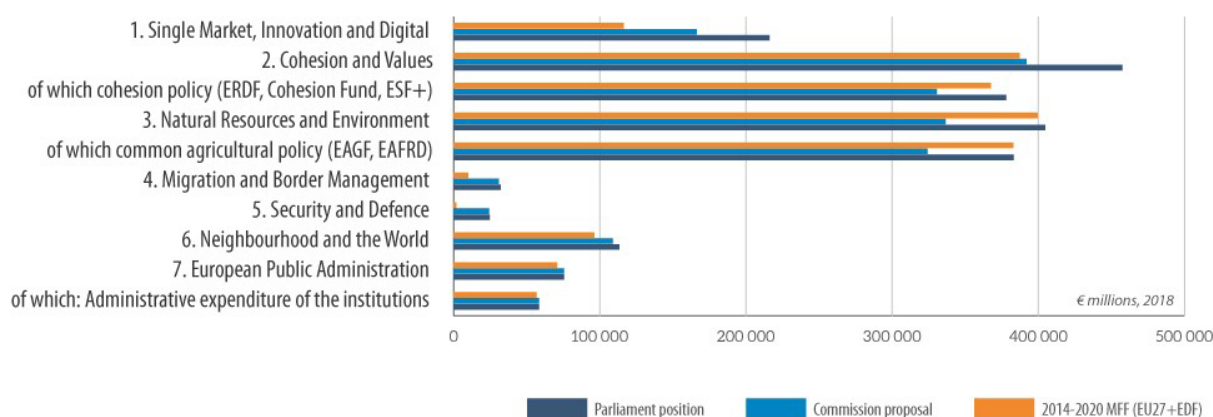
Parliament's position: ambitions and negotiations

The European Parliament has long advocated reforms of the EU budget, including the EU's own resources. The Parliament's strong stance on building an ambitious, results-focused EU budget, able to respond to unforeseen challenges and supporting programmes delivering European common goods, was expressed in its resolutions on the expectations on the post-2020 MFF and EU own resources as well as in its negotiating mandate adopted on 14 November 2018. The latter encompasses both the MFF and EU revenue and will thus be reflected in the Parliament's mandates for legislative negotiations leading to the adoption of the EU programmes (sectoral regulations).

The Parliament considers the Commission's proposal insufficient given all existing commitments, challenges and new priorities. It estimates that the MFF ceiling should be set at 1.3 % of EU-27 GNI, amounting to €1 324 089 million (2018 prices). As specified in the resolution, such an amount would make it possible to maintain the financing of cohesion and common agricultural policies at the level of the 2014-2020 MFF (in real terms) and reinforce a number of EU programmes and policies, in particular those supporting economic growth, research and innovation, youth and the fight against unemployment, and addressing the challenges of migration (see chart 1). Given the EU's obligations under the Paris Agreement, the Parliament underlines that the budget contribution to the climate objectives target should reach at least 25 % over the years 2021-2027 and 30 % as soon as possible, at the latest by 2027. As for the proposed changes in the system of own resources, the Parliament considers them an important step towards a more ambitious reform, but expects an even more ambitious approach and an extension of the list of potential new resources and forms of revenue.

Now that the Parliament's negotiating mandate is ready, all eyes are on the Member States represented in the Council and the European Council. The discussions held so far show that the differences of opinion on many aspects remain significant. They concern horizontal issues, such as the overall MFF size, its flexibility and the introduction of a budgetary instrument for the euro area, as well as specific aspects of different spending programmes, including their financial envelopes (notably for cohesion and agriculture), allocation criteria and implementation modalities. The postponement of the decision on the next MFF to autumn 2019 gives the Member States more time to clarify these thorny issues, and politicians an opportunity during the electoral period to involve citizens in the debate on EU spending priorities.

Chart 1 – Comparison of the 2014-2020 MFF with the Commission's proposal for the 2021-2027 MFF and the Parliament's position on the proposal

Data source: EPRS.

4. Africa – The 'twin continent'

A push for stronger relations

In his 'State of the Union' 2018 speech, Commission President Jean-Claude Juncker proposed to deepen EU cooperation with Africa, 'Europe's twin continent'. Still, both entities are not alike: they have different levels of development, there is less regional integration in Africa than in the EU, and there are fewer democratic regimes in Africa. However, several reasons call for a rapprochement. At a time when multilateralism is put at risk, the EU and Africa have a common interest in looking for convergence in the United Nations (UN) and other international fora. Admittedly, EU countries want to offset the growing economic and strategic influence of China, Russia and the Gulf states in Africa, but there is also a pressing need for Africans and Europeans to defend progress made in areas such as climate action, sustainable growth and security. To this end, the EU is engaged in promoting Africa's role in international relations, through strengthening African regional organisations. In cooperating more on global affairs, the Africa-EU partnership could be one of 'brothers and sisters', in the words of Federica Mogherini, the High Representative of the Union for Foreign Affairs and Security Policy, and Vice-President of the Commission.

Siblings can also have conflicting interests, and **migration** is probably the most contentious issue. On the one hand, in the run-up to the 2019 European elections, the EU is willing to put forward a coherent migration control policy – the leading concern of EU citizens. On the other hand, African countries, in particular those for which migration is an opportunity, are wary of the growing impact of EU migration policy on development cooperation. However, since the Valletta Summit in 2015, a shared approach to addressing the root causes of migration is emerging. EU and African leaders share the opinion that fostering an environment conducive to business development is a key feature to create jobs at a pace proportionate to Africa's fast demographic growth (although to what extent this would reduce or increase migration to the EU is a debatable topic). The new alliance for sustainable development and jobs proposed in September 2018 by the European Commission aims to **boost investment** and improve the ease of doing business, through education, lifelong learning, political stability and security enforcement. The European Commission expects that the new alliance would give rise to 10 million jobs within five years. Around €40 billion of grants are envisaged to be used as leverage for other financial inputs. The new alliance actually elaborates on the external investment plan (EIP), designed to help **uplift private and public investment** by providing technical assistance, as well as new guarantees to cover possible default by borrowers. It also highlights the need to rethink **Africa-EU trade relations**. Both the African Union (AU) and the EU expect that the implementation of the African continental free trade area (AfCFTA) will allow trade negotiations on an equal footing, whereas economic partnership agreements (EPAs) between the EU and African sub-regions have been met with diffidence by some countries. The AfCFTA is one of the flagships of Agenda 2063, an AU vision for an 'integrated, prosperous and peaceful Africa', whose aspirations are echoed in several EU cooperation frameworks – including the 'new alliance'.
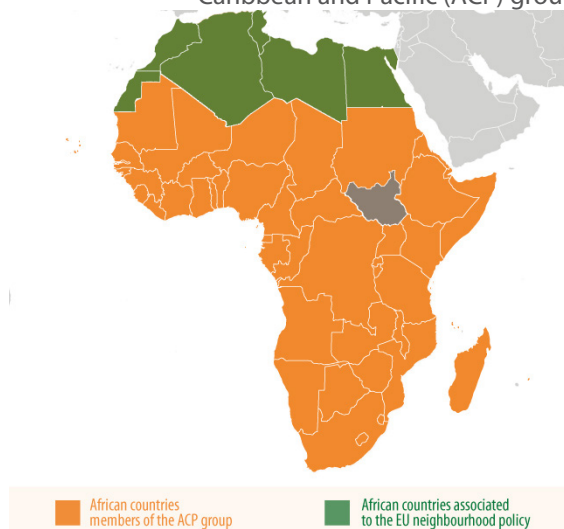
A new alliance with whom?

The proposed new alliance between the EU and Africa is aimed at responding to both partners' needs, and pledges that the implementing projects will be devised in full respect of beneficiary countries' ownership. Nevertheless, the proposal has been put forward on the EU side and needs to be agreed by its African partners to become a genuine alliance. In this regard, the EU supports the African Union's will to reform into a less donor-dependant and stronger institution, so that it can become its privileged interlocutor. A framework exists for EU relations with all Africa: the joint Africa-

EU strategy (JAES). Every three years, an AU-EU summit provides political guidance for JAES, but it has no binding features.

In practice, Africa-EU cooperation is currently managed and implemented through **multiple channels**. Sub-Saharan countries and the EU are bound by the Cotonou Partnership Agreement (CPA) which also involves some Caribbean and Pacific states. The CPA has its own institutional set-up and its own funding source, the European Development Fund. It covers cooperation in a wide range of areas and has an elaborate dialogue and dispute settlement mechanism. Such a comprehensive and multilateral treaty does not exist for EU-North Africa relations: the European Neighbourhood Policy is mostly implemented through tailor-made bilateral agreements. The EU also has relations with African sub-regional groupings: the AU's regional economic communities and the G5 Sahel. Policy dialogues on migration involve the EU and African countries in various configurations.

Map 1 – Not all AU countries belong to the African Caribbean and Pacific (ACP) group

With the Cotonou Partnership Agreement being due to expire in February 2020, the EU has proposed that the future partnership (often referred to as 'post-Cotonou') comprises common principles (an 'umbrella' agreement) and three distinct and binding regional pillars, of which one for Africa. The EU also envisages this African pillar will involve all African countries, not only the African members of the ACP group (see map 1). This African protocol could form the legal substance of the new alliance, and help streamline the various Africa-EU cooperation projects, provided all stakeholders find a common approach.

African countries members of the ACP group

African countries associated to the EU neighbourhood policy

Source: EPRS.

2019 outlook

Negotiations about a new ACP-EU partnership have begun and will continue in 2019. Yet, partners need to overcome several hurdles. Already, the AU claimed leadership of the negotiations of the 'post Cotonou' EU-Africa agreement, which it wanted to be 'separated from the ACP context'. A compromise was found between the ACP group and the AU (the ACP group would lead the negotiations and the AU would coordinate African countries' positions within it) but this shows how the balance of powers is fragile. Many events could disrupt this balance in 2019: leadership changes in the EU (see issue 1) and AU institutions, budgetary decisions (see issue 3), election outcomes in EU Member States and African countries (notably in Nigeria and South Africa). This should not prevent the launching of projects linked to the new alliance: the European Commission expects that they will be the opportunity to deliver on the AU-EU summits' commitments.

5. Trade war(s)

In 2018, US President Donald Trump unilaterally imposed additional tariffs on US aluminium and steel imports, based on 'national security' grounds, to enhance the competitiveness of related domestic industries. He also levied punitive tariffs on thousands of import items from China for allegedly 'unfair trade practices' related to technology transfer, intellectual property and innovation. Both measures aim to maximise US leverage for the (re-)negotiation of trade deals with a view to curbing the US trade deficit and preserving the US's global technological lead. By resorting to rarely used US legal bases that provide him with large discretion and allow him to bypass the US Congress, the US President has fulfilled his campaign promise to pursue a more nationalist trade policy aimed at 'free, fair, and reciprocal trade'.

The US tariffs have sparked escalating trade tensions between the US and many of its trading partners and have resulted in what have been widely referred to as 'trade war(s)'. US trading partners have responded with retaliation and World Trade Organization (WTO) complaints, which in turn have invited US counter-retaliation and counter-complaints. The US metal import tariffs of roughly US$40 billion account for only a small fraction of the China-specific import tariffs of about US$250 billion or 12 % of total US imports (as of November 2018), which, in the absence of a long-term deal, could surge by US$267 billion to cover all US imports from China.

President Trump's anti-globalist and zero-sum approach to trade is rooted in his firm belief that the USA is a loser from globalisation and that the US deficit in trade in goods – a questionable metric to measure bilateral trade ties – is caused by unfair trade practices of US trading partners like China, which accounts for 46 % of the US trade deficit. The new US trade policy privileges the unilateral enforcement of US trade laws over reliance on the rule book of the WTO, perceived as ineffective to deal with the vast challenges posed by China's economic model.

However, the China-specific US tariffs are not just about the US trade deficit but about containing China's unchecked rise to 'strategic competitor' to the US in both the economic and military realms. The US expectation that, once a WTO member, China's embrace of WTO rules would lead its centrally planned economy to morph into a Western-style market economy, has simply not materialised. As China in the recent past has rapidly climbed up the value-added ladder, it increasingly competes with the US – and the EU – in high-end manufacturing based on a fundamentally different, state-interventionist economic model. Since 2015, China has pushed ahead with its state-led industrial policies programme 'Made in China 2025' that sets ambitious targets for leapfrogging foreign technologies and largely replacing them with indigenous technologies in ten advanced industries, thus challenging US technological and military leadership.

Political, economic, and legal implications

Politically, the US metal tariffs have been another blow to transatlantic ties, as they have chiefly hit US allies, although these neither pose a security risk nor are they producers with over-capacity. The EU has found itself between a US 'go-it-alone' strategy against China and a China portraying itself as a champion of a Chinese brand of 'free' trade and as a potential EU ally against a protectionist US, for example on WTO reform. The US tariffs appear to be part and parcel of a more confrontational US policy towards China. This is marked by partial US political disengagement and economic, and notably technological, decoupling resulting from tighter US export controls and US screening of foreign direct investment from China. This may lead to an 'economic Iron Curtain' and may face US allies with difficult choices, for example concerning the use of Chinese IT equipment from Huawei.

Economically, the tit-for-tat tariffs will be a drag on global growth, although the degree may vary according to different scenarios. They will prompt trade and investment diversion, disruption to global value chains – a key aim of President Trump to bring jobs back to the US – and relocations

that will weigh heavily on business profits. While US experts stress the tariffs' impact on US industry, consumers and farmers, a recent study suggests that the major tariff burden will be borne by China, where unusual criticism of the Chinese response has emerged. The study also shows that the US trade deficit may not be slashed to the extent envisaged and, contrary to the expected reshoring of production facilities, American companies seem to prefer relocating to low-cost Asian countries.

From a legal perspective, the 'creative' use of rarely used US legal bases is seriously eroding WTO rules. While the US metal tariffs are based on a broad domestic definition of national security, it is uncertain whether they are justified under the narrow 'essential security interest' exception of Article XXI of the General Agreement on Tariffs and Trade that the US considers self-judging, i.e. at its own discretion. If the US views were to prevail, this would set a precedent that would open the WTO national security exception as an excuse for virtually any kind of new trade barrier.

The EU response to US tariffs and work on WTO reform

The EU has both a defensive and an offensive 'bridge-building' position in the US import tariff issue. As a target of the US metal tariffs, the EU has responded with a three-pronged defence of EU economic interests and the multilateral trading system. Like eight other WTO members, it lodged a WTO complaint challenging the legality of the US tariffs. Considering them as safeguard measures rather than 'national security' tariffs, it retaliated with rebalancing measures under the WTO Agreement on Safeguards and it adopted provisional safeguard measures under the EU regulations on safeguards to fend off injury to EU industry from trade diversion. Following US threats to impose 'national security' tariffs on EU cars and car parts, the EU has engaged in exploratory talks with the US on a potential trade agreement focused on industrial tariffs and in talks on regulatory cooperation, while also drawing up a list of potential rebalancing measures.

The EU fundamentally disagrees with the US choice of tariffs as a means to tackle China's allegedly unfair trade practices, but shares the main thrust of the US assessment. The EU believes that some of the issues could be addressed in a bilateral agreement on investment, others through WTO complaints or new WTO disciplines on forced technology transfer, intellectual property theft, state-owned enterprises, and subsidies as well as stricter enforcement of upgraded notification rules. Since the 2017 WTO Ministerial Conference, the EU, Japan, and the US have worked on WTO reform in a dedicated working group. The EU has also set up a working group with China, and presented the EU proposal for WTO reform to a Canada-led initiative of like-minded countries in October 2018.

2019 outlook

One of the EU's priorities in 2019 is to calm EU-US trade tensions by negotiating a trade agreement focused on eliminating tariffs on industrial goods and non-tariff barriers to trade, to ensure that US import tariffs on EU cars and car parts are off the table. In 2019, Sino-US trade tensions are expected to continue, as China cannot accommodate all US-requested structural policy shifts, and short-term purchase deals do not solve systemic issues. As Sino-US rivalry grows fiercer, the EU is likely to find it more difficult to navigate the US-EU-China triangle with 'middle of the road' positions, and may be pushed to 'pick a lane'. The year 2019 is also vital for the EU to help broker consensus on diverging WTO reform positions ahead of the 2020 WTO Ministerial Conference in Astana.

6. Internal security

Security in the digital era – crime going digital

The digital revolution has transformed our lives, offering huge opportunities but also presenting challenges, such as how to protect people from risks and threats inherent to a digitalised world (see issue 10). Cyberspace represents a perfect playground for criminals: the number of cyber-attacks is increasing and they are becoming ever more sophisticated. To give just two examples: every day more than 6 million data records are lost or stolen worldwide and over 4 000 ransomware attacks are launched. These attacks affect our critical infrastructure, such as hospitals, transport and information systems, and cost the European economy hundreds of billions of euros. In some EU countries, half of all crimes committed are cybercrimes.

Not only is cybercrime on the rise, but traditional crime is also going digital. Organised crime groups use the internet for multiple activities, such as drug trafficking, counterfeiting of means of payment and credit card fraud, trafficking in human beings, etc. Despite some major takedowns by law enforcement, illicit marketplaces flourish on the darknet to sell drugs, weapons, counterfeit goods, fake identity documents or cybercrime 'toolkits', that are ready for use by less experienced attackers ('crime as a service'). There is a high risk that terrorists may use these easily available tools to perpetrate a cyber-attack, e.g. in order to target critical infrastructure. Terrorist groups such as ISIL/Da'esh actively use the internet to spread propaganda and inspire terrorist acts.

All these crimes, especially those committed or facilitated in cyberspace, have one common feature: due to their global and borderless nature, they require a global response and transnational cooperation between law enforcement and judicial authorities.

Common responses to common threats – EU action

Europeans are worried about these persistent threats: they perceive terrorism, organised crime and cybercrime as the main security challenges for Europe and want the EU to do more to address them.

Terrorism, organised crime and cybercrime are the main priorities of the 2015 European agenda on security. Cybercrime is also at the top of the list of ten priority crime areas identified by the Council of the EU in the recently adopted EU Policy Cycle 2018-2021 – a four-year plan for operational cooperation in fighting serious and organised crime. Internal security concerns are regularly addressed by the European Council, and are part of the strategic objectives of the Leaders' agenda for the future of the EU's Area of Freedom, Security and Justice.

Some important pieces of legislation entered into force in 2018, such as the Directive on Combating Terrorism and the Network and Information Security (NIS) Directive. The Combating Terrorism Directive establishes minimum rules on definitions and sanctions for terrorist activities, including incitement to terrorism online. Moreover, it adds cyber-attacks to the definition of terrorist offences, thus creating a legal framework for prosecuting acts of cyberterrorism. The NIS Directive requires Member States to designate critical infrastructure, and creates an obligation to notify security breaches to competent authorities, contributing to building cyber-resilience. The obligation to report data breaches introduced by the Data Protection Regulation (GDPR) is also an important step towards more security in the digital environment, since stolen data can be used by criminals to create fake documents or steal money online.

Several legislative proposals related to EU internal security and put forward in 2017-2018 are currently under consideration by the European Parliament and the Council. Some could still be adopted before the European elections in May 2019, as called for by the Commission. Many of the proposals have a strong digital component, and aim to facilitate cross-border cooperation to combat crime both online and offline. For example, a September 2018 proposal would require service providers to remove terrorist content online within one hour of notification by law enforcement authorities. The aim is to prevent dissemination of terrorist propaganda and improve its detection.

Two legislative acts for a safer cyberspace are expected to be adopted in 2019: the first aims to combat cybercrime: it updates the EU framework against fraud and counterfeiting of non-cash means of payment, adapting it to evolving technologies. The second aims to increase cyber-resilience It creates an EU cyber-security certification scheme (enhancing 'security by design') and strengthens the mandate of the EU Agency for Network and Information Security (ENISA), transforming it into a Cybersecurity Agency. A further step in this direction is the September 2018 proposal to establish a European cybersecurity network and a competence centre to streamline cybersecurity cooperation and research.

Technologies as a mean of enhancing security?

New technologies are not only a challenge for law enforcement, but also present huge potential for the development of investigative techniques and surveillance tools. A plethora of technologies are being used for security purposes. In recent years, we have witnessed the spread of CCTV systems, facial recognition, biometric passports, and security-related databases storing personal data of an increasing number of people. Big data analytics and artificial intelligence could produce major changes in the ways law enforcement operates. Some countries have already started using novel tools and techniques such as police robots or predictive policing.

However, security objectives have to be reconciled with respect of our fundamental rights and freedoms, in particular the rights to privacy and protection of personal data, enshrined in the EU charter. Do we really need to choose between freedom and security?

A win-win solution might be to apply 'privacy by design' and 'security by design' principles when creating new techniques and tools.

Discussions are also ongoing on proposals issued in April 2018 on law enforcement access to financial data, as well as cross-border access to electronic evidence, needed to investigate all serious crimes (not only money laundering or cybercrime). The proposed e-evidence regulation would allow judicial authorities to directly request access to data held by service providers in another Member State, outside traditional judicial cooperation channels – a challenge from a legal and fundamental rights point of view. It also remains to be seen if ongoing discussions with the US on transatlantic access to electronic evidence will translate into the negotiation of an EU-US agreement.

The EU has also sought to enhance information-sharing between its Member States, by upgrading its information systems (such as SIS) or creating new ones (such as ETIAS). In December 2017, the Commission issued a proposal on the interoperability of the EU databases for borders and security, with the objective to build a new data-sharing architecture with a single entry point, an identity repository and a biometric matching service. The interoperability regulation stands a good chance of being adopted before the end of the current parliamentary term.

Another important issue to watch in 2019 will be the implementation of recently adopted measures. The transposition of several laws has suffered delays, e.g. the Passenger Name Record (PNR) Directive, the NIS Directive, the Directives on combating terrorism and on firearms, as well as the Directive on data protection by law enforcement.

Last, but not least, the EU will be confronted with the challenge of protecting the upcoming European elections from interference. To secure free and fair elections, the Commission adopted a recommendation on online transparency, protection against cybersecurity incidents and the fight against disinformation campaigns. The efficiency of these measures will be tested in May 2019.

7. Towards a policy for the oceans

Oceans include a wide range of ecosystems, ranging from the stable, though vulnerable, environment of the deep ocean to highly dynamic and diverse coastal waters. In Europe, marine ecosystems provide a home for up to 48 000 species, with the Mediterranean hosting the highest natural biodiversity. Oceans, covering over 70 % of the Earth's surface and holding about 97 % of the Earth's water, capture and store large amounts of carbon while being an important source of oxygen. However, knowledge about oceans, especially on the state of marine biodiversity, remains limited. Where data exist, they paint a bleak – and deteriorating – picture of the state of marine species and habitats.

Benefits of oceans

Besides vital environmental benefits such as climate regulation, oceans provide economic benefits for EU citizens, including many of the 40 % of the EU population living in coastal regions. In the EU, industries whose activities rely on the seas and coasts are estimated to employ close to 7 million people. Maritime sectors include fisheries, marine aquaculture, offshore energy production, shipping, and coastal tourism and recreation.

New economic opportunities associated with oceans include: renewable ocean energy (in particular from waves, tides or marine currents), seabed mining and shipping. Similarly, well managed marine protected areas can bring benefits in terms of biodiversity protection as well as economic benefits, especially for tourism and fisheries.

Pressures on oceans

Although the situation is improving in some respects and in some places, oceans are impacted by past and present human activities. Pressures include:

> over-exploitation of living resources: although pressure on European fishing stocks has decreased in the past decade, many commercial stocks (worldwide and in Europe) are still being fished above their maximum sustainable yield;
> pollution: oceans can be polluted by excess nutrients from agriculture or waste water, causing coastal eutrophication (a process ultimately removing oxygen from water, creating 'dead zones'); by oil spills; by known contaminants (such as lead or mercury); by emerging pollutants (such as pharmaceutical products or endocrine disruptors); and by marine litter (mainly plastics);
> climate change: besides a sea level rise, carbon emissions are inducing an increase in sea temperature and ocean acidification, making species and ecosystems more vulnerable to other pressures;
> introduction of non-indigenous species, mostly through shipping and the Suez Canal.

Plastics in the oceans

About three quarters of the marine litter in the world's seas is plastic. It is estimated that there are over 150 million tonnes of plastic in the world's seas and that, without significant action, there may be more plastic than fish (by weight) in the sea by 2050. Some marine litter consists of microplastics; these originate from the breaking down of larger plastic pieces or are released directly into the environment.

Wildlife may be affected by plastic marine litter through ingestion, or as a result of certain additives used in plastics, such as bisphenol A (BPA) or certain phthalates used in polyvinyl chloride (PVC). In addition, persistent organic pollutants can attach themselves to plastics in water and enter the food chain via marine fauna.

EU and global policies

EU policy actions on oceans aiming to **reduce pressures on the environment** include:

> the 2008 [Marine Strategy Framework Directive](#), aiming to achieve good environmental status of European marine waters by 2020, to promote the sustainable use of the seas, and to conserve marine ecosystems;

> the [common fisheries policy](#), requiring the exploitation of fish stocks to be based on the maximum sustainable yield by 2020 at the latest;

> a network of [marine protected areas](#), built together with Member States, which now covers 10.8 % of EU marine waters.

In 2012, the European Commission launched its [blue growth](#) strategy aimed at developing sectors considered to feature high potential for growth and jobs (aquaculture, coastal tourism, marine biotechnology, ocean energy and seabed mining), supported by specific measures to improve knowledge, security and legal certainty. The strategy is translated into strategies at sea basin level.

To ensure policy coherence, the EU has adopted an [integrated maritime policy](#) and the [Maritime Spatial Planning Directive](#). However, successfully aligning policies seeking to further exploit the oceans' resources (such as blue growth) with policies seeking to halt biodiversity loss and achieve good environmental status of marine waters, remains a challenge.

At global level, international conferences on oceans ('Our ocean'), organised every year since 2015, have provided the opportunity for countries to make voluntary commitments. The EU has been actively involved, hosting the 2017 conference in Malta, and making [23 commitments](#) on a variety of topics at the 2018 conference held in Bali. In 2018, the G7 adopted, under the Canadian presidency, a [blueprint](#) on oceans, seas and resilient coastal communities.

The European Parliament has highlighted the importance of international ocean governance, supported the fight against marine litter and stressed the socioeconomic and ecological importance of the fisheries and aquaculture sector.

2019 outlook

As regards fisheries, 2019 is an important year in two respects. First, the requirement to land all catches of species subject to catch limits (or, in the Mediterranean, to rules on size), applies as of 1 January 2019. Second, 2019 is the last year before the deadline for achieving the objective to base all commercial fish stocks quotas on the maximum sustainable yield.

The Marine Strategy Framework Directive objective to have EU marine waters reaching good environmental status by 2020 is expected to come under the spotlight, with a report to be published by the Commission in the second half of the year.

EU legislation aiming to address [marine litter from plastics](#) by introducing measures (such as bans, consumption reduction, product design, labelling and awareness-raising) regarding the top 10 single-use plastics found on European beaches, is expected to be adopted by the co-legislators in 2019.

Also this year, negotiations on a new international [treaty on the marine biodiversity of high seas](#) (or 'areas beyond national jurisdiction') are expected to start in earnest under the UN Convention on the Law of the Sea (UNCLOS).

The 2019 'Our ocean' conference will be held in Oslo in October.

8. From artificial intelligence to collective intelligence

Defining the issue: digital, social and collective

Although wealth and income inequalities have been rather stagnant across the EU, differences across regions, generations, people with different educational levels and socio-cultural backgrounds are growing. Some think the EU's catch-up in technology production might increase inequalities, particularly among the lower-skilled, less-educated and less-trained. A recent paper on the future of EU policies stated that equality should be addressed not only through redistribution, but also through design. This implies systemic change where most examples involve mutually reinforcing elements – with technologies, business models, laws and social movements all pointing in a similar direction.

Some argue that technological change and digital transformation are inherently social, with technologies embodying values and behaviours. As such, technological innovation cannot be separated from social innovation, which entails new ideas (products, services, and models) that simultaneously meet social needs (more effectively than alternatives) and create new social relationships or forms of collaboration. Responsible research and innovation and participatory design are, for example, ways to encourage proactive shaping of technologies. Technology innovation seems to follow an S curve – from take-off through installation to slow-down. Currently, we are approaching the slow-down of digital electronic tech systems and the take-off of artificial intelligence (AI). AI is a broad term that captures the constantly evolving advances in machines' capabilities to perform tasks that would normally require human intelligence. An emerging field of research looks into how AI can be combined with human intelligence. It talks about (social) collective intelligence, which means a community lens on all information available and a deeper level of understanding. Google Maps is, for example, a result of this combination of an iterative process of problem definition and solution development. It seems inevitable now that our lives will be more and more interwoven with intelligent machinery. As worded in Big mind, 'the question is not whether this will happen but how can we shape these tools so that they shape us well – enhancing us in every sense of the word'.

EU role in 2019 and beyond

As presented in the chapter on digital transformation (see issue 10), the EU has been active in creating an enabling environment for a stronger digital single market and industry and in adapting legislation to the new reality. In the current chapter, we highlight actions and policies that focus more on the social, human side of digital transformation. As such, the chapter also traverses different sectors and shows the potential of EU initiatives cutting across different portfolios, including social, employment, education, environment and health. One of the ambitions of the current Commission's agenda is to earn a 'social triple A' rating, by achieving fair and balanced growth, decent jobs and social protection assisted by a new reference framework, the European Pillar of Social Rights. To achieve these objectives, the combination of technological and social innovation from grassroots to top level, including the promotion of collective intelligence, is indispensable.

Horizon 2020, the EU research programme, and its predecessors have invested in widening the knowledge base concerning social innovation and the links between social and technological innovation, including between artificial and collective intelligence. Part of these endeavours has been to create networks and platforms with participants from government, academia, and the digital innovation field, and to link research to policy. Collective awareness platforms for sustainability and social innovation (CAPs) have, for example, been piloting online platforms to raise awareness of sustainability problems, to offer collaborative solutions, and to enable new forms of social innovation. The seven societal challenges already identified in Horizon 2020 and the second

pillar of Horizon Europe, the future research programme, on global challenges and industrial competitiveness, further strengthen the links between research and policy, and between social and technological innovation. In addition, Horizon Europe's mission-oriented approach should incentivise cross-sectoral solutions with the participation of stakeholders and wider society.

Policies and actions supporting the creation of an enabling environment for combining social and technological innovation will primarily focus on promoting digital skills, the social economy, the collaborative economy, the labour market and health. As a follow-up to the digital education action plan, several actions will be carried out in and outside schools, vocational and higher education institutions. As part of the New Skills Agenda, the digital skills and job coalition governing board has prepared an action plan, which will be followed up in 2019. The plan focuses on expanding the network with as many actors as possible, from the ground, with digital skills actions. To implement the five pillars of the 2016 start-up scale-up initiative, including better framework conditions, new technologies and social innovation, the Commission will work together with a new expert group. To identify the social impact (both risks and opportunities) of digitalisation on labour markets, a high-level group on the impact of digital transformation on EU labour markets is expected to deliver its conclusions in 2019. In addition, the Council recommendation on access to social protection for all, reflecting on the situation of a growing number of people in non-standard work, will be followed up by Member States developing their own national plans within the next two years. The 2018 communication on the transformation of digital health and care sets out plans to enhance the digitalisation of the sector to empower citizens and promote better person-centred care. Finally, as regards open data, policy discussions on the need to establish harmonised rules on data-sharing arrangements will continue, including how to use and re-use data with the help of AI. Moreover, improving data quality through mobilising collective intelligence, which can be beneficial particularly in the public sector, may also be part of the discussions.

The Parliament can play an important role in launching a debate on a common, internationally recognised, ethical, human-centric, and legal framework for the design, production and use of AI, robotics, and their increasingly autonomous systems. Already the 2017 Parliament resolution on civil law rules and robotics was an important step in this direction. It called, inter alia, for EU legislation on AI and robotics. The Commission's April 2018 communication on AI was a first move towards designing a human-centric EU AI strategy. It announced the creation of an appropriate technical and legal framework for AI, including a guidance document on the interpretation of the Product Liability Directive by mid-2019. The December 2018 Coordinated plan on AI constitutes the next step towards an EU strategy, spelling out all the necessary actions at Member State level between 2019-2020 and beyond, across sectors, ranging from research, through business, to education, health and the labour markets. The high-level group on AI with representatives from academia, civil society and industry is expected to design the direction for possible future regulations in 2019.

Much of the design and implementation of social, employment, education and health policy remains with the Member States. The next multiannual financial framework (see issue 3) has ample potential to mainstream social innovation and better connect it to technological innovation, including exploiting AI and promoting collective intelligence. It can encourage funding applicants to seek out new types of partners, build new capacity, and thus shape the future of local and national innovations to address societal needs.

9. Electric mobility

With advances in technology and evolutions in society, mobility is changing drastically. Tomorrow's vehicles are expected to be cleaner, connected and autonomous. Electric mobility – the use of vehicles that rely on one or more electric motors for propulsion, also known as 'electromobility' or 'e-mobility' – is one of the solutions that could make vehicles cleaner. Electric mobility encompasses all modes of transport, but for the purposes of this paper, we will focus on the currently much discussed topic of electric road vehicles.

Electric mobility could help in the EU's efforts to reduce CO_2 emissions, air pollution (especially if the electricity is produced from renewable sources) and noise. In addition, electric vehicles generally have lower running costs and require less maintenance. Further advantages of electric mobility include energy efficiency in transportation and reduced dependence on oil – one of the strategic interests of the EU. However, the EU is still far from achieving a widespread uptake of electric vehicles. It still needs to address problems such as high upfront costs and a limited offer of electric vehicles compared to conventional ones, and limitations of the electrical grid, charging infrastructure and batteries. For all of these issues, 2019 will be a crucial year as the EU is expected to agree on the next long-term EU budget as well as to adopt several laws affecting electric mobility.

Growing market

Global sales of electric cars surpassed a million units for the first time in 2017 (see Global EV Outlook, 2018). The overall global electric car stock surpassed 3 million in 2017, which is over 50 % more than in 2016. The majority of these cars were in China. In addition, there were globally about 250 000 electric light commercial vehicles in circulation in 2017 and billions of two- and three-wheelers. Norway is the world's leader in market share terms. Almost every second new car sold in Norway in 2017 was electric. In the EU, the number of electric vehicles remains limited but growth in recent years has been strong. The market share of electric cars in the EU is currently about 2 %, around 30 % higher than last year. The number of other types of electric vehicles is also rising. For instance, the total stock of e-bikes in the EU is expected to rise to 62 million by 2030. Only the demand for electric trucks remains limited for the moment.

Statistics on 'electric cars' include different types of vehicles in their calculations. For instance, the Global EV Outlook includes battery electric vehicles (powered by an electric motor and battery with plug-in charging) and plug-in hybrid electric vehicles (a combustion engine is complemented with an electric motor and battery with plug-in charging). The European Automobile Manufacturers' Association includes also fuel cell electric vehicles (which use a fuel cell to create on-board electricity) and extended range electric vehicles (powered by an electric motor and plug-in battery, with an auxiliary combustion engine used to supplement battery charging).

Source: Global EV Outlook, 2018; European Automobile Manufacturers' Association, 2018.

EU action to support e-mobility

The EU has taken various actions to support electric mobility. These complement national and local measures such as introducing lower taxes or providing free public parking for electric vehicles. The EU has been encouraging resource efficiency, recycling, eco-innovation, breaking the dependency on oil, improving efficiency of the transport system, moving towards cleaner vehicles, development of sustainable fuels and scaling up the use of renewable electricity. Often the actions to promote electric mobility are part of wider measures whereby the EU seeks to develop a more sustainable transport system. Electric mobility is just one of the ways towards this goal.

More concretely, since May 2017 the European Commission has presented three parts of a mobility package called 'Europe on the Move'. The package aims to make traffic safer; encourage smart road charging; reduce CO_2 emissions, air pollution and congestion; cut red tape and improve working conditions. Under this package, the Commission has presented an alternative fuels infrastructure action plan, a communication on low-emission mobility, emission performance standards for new passenger cars and light commercial vehicles (including incentives for low and/or zero-emission vehicles) and first ever CO_2 emission performance standards for new heavy-duty vehicles. In addition, the Commission has proposed to revise the Clean Vehicles Directive to stimulate the market uptake of clean vehicles in public procurement. These proposals are at various stages of interinstitutional negotiations and some of them are expected to be adopted in 2019.

The EU has also supported the development of batteries as a key enabling technology for electric mobility. It has helped to improve batteries' performance and to cut their costs. However, several issues remain to be resolved. The EU still imports most battery cells from third countries. To tackle this as well as other issues, the European Commission presented in May 2018, as part of the 'Europe on the Move' package, the strategic action plan for batteries, in which it sets the goal of making Europe a global leader in sustainable battery production and use. The action plan includes, inter alia, the launching of calls for proposals for battery-related research and innovation projects (on topics such as battery chemistries, recycling and second-use) in 2019.

Furthermore, various EU legal acts set out technical specifications for recharging points and basic principles for recharging operators, ensure that payment services are interoperable and require that new non-residential buildings be equipped with recharging points. More concretely, the Alternative Fuels Infrastructure Directive recommends that there should be around one public recharging point for every ten electric vehicles. Currently, it is estimated that there is one public charging point for every five electric vehicles. The majority are located in urban areas in a few Member States, for example, Germany, France, the Netherlands and the United Kingdom. These add to the semi-public (for instance in commercial car parks) and private charging points. However, as the number of electric vehicles is expected to increase, more charging points are needed: the European Commission estimates that around 440 000 publically accessible recharging points are needed by 2020, and some 2 million by 2025.

The EU is also helping to integrate electric vehicles into the electricity system. A wide uptake of electric vehicles will increase electricity demand on an electricity grid that is already under pressure at certain times of the day in some areas. To avoid unnecessary costs and delays in the uptake of electric vehicles, the EU is therefore promoting charging at the most convenient times for the electricity grid and at the lowest cost for consumers (for instance by proposing new rules for the internal market in electricity).

Finally, the EU provides financial help for the development of electric mobility. It co-finances for instance the development of charging infrastructure from a financing instrument called the Connecting Europe Facility (CEF) and research on green vehicles from the EU's research and innovation programme Horizon 2020. In the next long-term EU budget plan to come into effect from 2021 (see issue 3), the Commission proposes to focus even more on the environmental dimension, research and innovation, by contributing, for instance, 60 % of the CEF budget to climate objectives.

10. Digital transformation

Digital transformation commonly refers to the changes driven by the increasing use of digital technologies in almost all kinds of human activities. This phenomenon is about the integration of digital technologies in industry and how society as a whole is affected by the development of a range of new technologies including big data, robotics, autonomous vehicles, 3D printing, blockchain, and the Internet of Things (IoT). This digital revolution, rooted in digitisation (i.e. conversion of information or data from analogue to digital format) and the digitalisation process (i.e. increased use of digital or computer technology), has already affected many sectors of the economy (including transport, energy, agri-food, telecommunications, financial services, factory production and health care) and transformed people's lives – and it is expected to accelerate.

The nature and pace of digital transformation is increasingly driven by the use of connected devices and reliance on artificial intelligence (AI) and machine-learning technologies to perform all kinds of tasks (e.g. medical diagnosis, self-driving vehicles, face recognition). AI is viewed as an important manifestation of digital transformation and is expected to have a profound impact on the EU economy and society, including on productivity, employment, business models and public services. While the ongoing digital transformation of the EU economy and society presents enormous growth potential for Europe, it also poses strategic challenges and raises new legal and regulatory questions that require coherent public policies.

Building the digital economy in Europe

In 2019, the EU will continue to implement its digital single market strategy, which provides a cross-policy framework aimed at improving access for consumers and businesses to digital goods and services, developing an environment conducive for digital networks and innovative services to thrive, and maximising the growth potential of the digital economy. The end of the Parliament's mandate will be marked by efforts to adopt the legislative proposals remaining in this field.

Following the recently agreed overhaul of the telecom rules, the EU will press on in 2019 with the rollout of the 5G network necessary to enable use of technologies such as connected vehicles, IoT and e-healthcare. A first step will be to make the suitable spectrum for 5G available.

Digitalisation of industry will also shift to a higher gear. While multiplying the number of digital innovation hubs will remain important, the Commission will increasingly focus on linking them in a pan-European network, in order to create more possibilities for businesses across the entire EU for technology-testing, advice on financing, market intelligence and networking. The EU will also further develop and mature digital industrial platforms to allow next-generation platform-building and piloting through large-scale projects needed to achieve integration of industrial technologies in key areas such as smart factories. Standardisation will focus on IoT, big data, blockchain, intelligent mobility, autonomous driving, e-health, smart cities, accessibility, e-government and artificial intelligence.

Industry and science need access to supercomputing for the processing of big data. In order to build the required capacity in Europe, the high-performance computing (HPC) joint undertaking, which has a budget of around €1 billion, will start public tendering processes in 2019, leading in time to the procuring of the first supercomputers. It will also advance work on creating a full HPC ecosystem via its research and innovation pillar. Considering digital services, the Member States have started working in partnership on developing the necessary blockchain infrastructure. In 2019, the EU should progress towards creating a comprehensive EU strategy boosting innovation and exploitation of blockchain technology, which will be based on cooperation between the public and private sectors.

As far as future financing is concerned, 2019 will be an important year for negotiating the 2021-2027 MFF (see issue 3). The Commission has proposed its first-ever dedicated Digital Europe programme with a budget of €9.2 billion aimed at boosting investments, mainly in five areas necessary to advance digital transformation: supercomputing, artificial intelligence, cybersecurity, advanced digital skills, and ensuring the wide use of digital technologies across the economy and society. Negotiations will also be ongoing on important complementary future instruments such as Horizon Europe, financing high-capacity broadband networks, improving investment and the single market, all of which are necessary to enable digital transformation in the future.

Adapting the legal, ethical and regulatory frameworks

Digital disruption requires rethinking the applicable EU framework in many respects (see issue 8). Several pieces of legislation have already been adopted or discussed in the fields of digitalisation of European industry and public services, e-commerce, copyright, cybersecurity or data protection. During the 2019-2024 mandate, the EU will continue adapting its laws and regulations to the on-going digital transformation and is likely to need to act in three main areas especially.

First, EU policy-makers will most probably focus their attention on questions of **ethics and trust**, which, from a European perspective, are central to the fundamental debate on the role that technologies should play in society. For some time now, the way in which technologies challenge established ethical norms has been a focal point of the policy discussion, particularly in the field of robotics and AI. Since 2016, the European Parliament has called for the setting of a clear, strict and efficient, guiding ethical framework in the field of robotics. Following its communication on artificial intelligence and the consultations held throughout 2018, the Commission is expected to present a set of EU ethical guidelines on AI covering issues including fairness, safety, transparency, privacy and personal data protection, and non-discrimination. Key policy questions such as how to control biased machine-learning algorithms, how to ensure human oversight, and how to achieve coherent implementation of such rules throughout the EU will also need to be reflected upon as some Member States, for example France and Germany, have launched their own AI strategies.

Second, the emergence of digital technologies has prompted a reflection about the suitability of the current EU rules on **safety and liability**, in particular those covering autonomous vehicles and IoT products. Already in 2017, the European Parliament called for updating civil liability rules to take account of the development of autonomous and cognitive features in cars and robots. The Commission has announced a guidance document for 2019, covering the interpretation of the Product Liability Directive in the light of technological developments, in order to ensure legal clarity for consumers and producers. More generally, given the challenges posed by emerging digital technologies, policy-makers are expected to focus their attention on identifying potential gaps in the EU safety and liability frameworks and assessing how best to remedy them.

Third, in our increasingly data-driven environment, the capability to analyse and learn from data is rapidly becoming a key ingredient for business development and government efficiency. **Access to and the re-use of digital data**, especially non-personal data and machine-generated data, is a key enabler of the digital transformation arising in many industries (such as the health and care sectors) and in the public sector. The policy discussion will continue throughout 2019 with a view to adapting EU legislation to this new paradigm, e.g. with regard to re-use of public sector information and private sector data sharing. An important step will be to clarify new legal concepts such as 'data ownership' and 'data portability'. The Commission will also issue a recommendation on a format for a European electronic health record, in a move towards fostering the interoperability of electronic health record systems and supporting the digital transformation of health and care in Europe. Moreover, EU competition authorities are increasingly concerned by the challenges posed by digitalisation to competition policy and will no doubt be strengthening their scrutiny in the coming year to prevent data bottlenecks and the abuse of market power by digital platforms.

This is the third edition of an annual EPRS publication designed to identify and frame some of the key issues and policy areas that are likely to feature prominently on the political agenda of the European Union over the coming year.

The topics analysed are the outlook for a new European Parliament and new European Commission, the way forward for the soon-to-be EU-27, the future financing of the Union, the process of digital transformation, artificial intelligence and collective intelligence, internal security, trade wars, Africa, electric mobility, and the oceans.