Green Deal Watch

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Setting a secure energy framework

7

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About the Green Deal Watch

The "Green Deal Watch" was launched in 2020 by the Istituto Affari Internazionali (IAI) with the support of Edison. The aim of the project is to follow the evolution of the ambitious and cross-cutting "European Green Deal" strategy towards climate neutrality launched by the Von der Leyen Commission in December 2019. The "Green Deal Watch" follows the "Energy Union Watch" that IAI has published from 2015 to 2019 to monitor the evolution of the energy and climate policies under the previous legislature. The multiple ramifications of the Green Deal will now be read along four dimensions – 'driving the green deal', 'greening industry', 'supporting the transformation', 'strengthening security and diplomacy'. IAI will cover the debate among national and European stakeholders and report the key dynamics in order to help the reader better navigate the challenges and opportunities of the implementation of the European Green Deal (EGD). The Watch is produced on a quarterly basis, collecting official documents, public information and open source data, which are processed and analysed by the IAI team.

About IAI

The Istituto Affari Internazionali (IAI) is a private, independent non-profit think tank, founded in 1965 on the initiative of Altiero Spinelli. IAI seeks to promote awareness of international politics and to contribute to the advancement of European integration and multilateral cooperation, focusing on topics such as European integration, security and defence, energy and climate policies, as well as key regions such as the Mediterranean, the Middle East, Asia, Eurasia, Africa and the Americas. The IAI publishes an English-language quarterly (The International Spectator), an online webzine (AffarInternazionali), two book series (Quaderni IAI and IAI Research Studies) and other paper series related to IAI research projects.

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ABOUT THIS REPORT

This is the seventh issue of the Green Deal Watch, a quarterly report produced by the Istituto Affari Internazionali (IAI) with the support of Edison. This publication aims at monitoring and analysing the initiatives launched by the European Commission and discussed by the EU institutions and Member States under the umbrella of the Green Deal.

This Green Deal Watch covers the new, greater range of topics anticipated by Commission President Ursula von der Leyen to achieve climate neutrality by 2050. We present a general analytical Foreword at the beginning of each publication, followed by the in-depth monitoring of Green Deal activities, divided according to a breakdown revolving around a set of four dimensions, designed to match the guidelines so far expressed by the von der Leyen Commission.

These are:

- **Driving the Green Deal,** which will look at the macro areas of Energy and Transport. It will analyse the technological and policy evolution for renewables, sustainable mobility, and green gases and hydrogen, with a strong focus on the energy market (both for gas and electricity) and energy efficiency.

- **Greening industry,** which will observe and discuss the reconversion of industry and of energy-intensive sectors in particular, with specific attention to the role of digitalisation, the upscaling of new technologies, R&I&D (Research, Innovation and Deployment) and circularity.
- **Supporting the transformation,** which will focus on energy governance, EU financing and funds, the Just Transition Mechanism and the repositioning of institutions such as the European Investment Bank (EIB).
- **Strengthening security and diplomacy,** which will tackle energy diplomacy aspects with specific attention to the Mediterranean, Africa, Russia, Asia and the US, as well as climate security and diplomacy and the role of the EU as a leader in the fight against global warming.

These four dimensions are followed by an in-depth section, where we will cover different kinds of content in each issue. This time we look at the opinion of Mechthild Wörsdörfer, Deputy Director-General of DG ENERGY, in an interview published after the analysis of the four dimensions. A Roadmap of initiatives envisaged under the European Green Deal concludes this report.

This Green Deal Watch aims at providing continuity to the analysis produced in the 16 issues of the Energy Union Watch (available here), the quarterly publication IAI dedicated to the Juncker Commission, which covered the whole five years of activities.

Foreword

Setting a secure energy framework within Green Deal boundaries

Vladimir Putin's invasion of Ukraine has drastically shaken the EU to its core. In its (huge) energy dimension, the crisis has marked a radical change of direction that is already becoming evident as the EU fast-tracks its plans for diversification. For decades, the EU-Russia energy relationship has expanded despite political tensions and warnings about Moscow's political use of its immense energy resources. The crisis following Putin's annexation of Crimea was the breeding ground for Juncker's Energy Union initiative. The long-standing engagement with Russia however prevailed, rooted in the idea that economic interdependence was a guarantee for peaceful relations. Until the invasion, Moscow was considered as a supplier for the EU's longer transition phase: the construction of the Nord Stream 2 pipeline, which was completed in 2021 and then halted two days before the war, represented this long-term commitment with Moscow. EU's vulnerability is now clearer than ever, and it adds to the urgency to tackle climate change to which the Green Deal responds. While a fast reduction in gas imports and use would help tackle both security and sustainability and must for this reason be fostered, in the context of EU's decarbonisation path, with coal and nuclear phaseouts taking place across the bloc, natural gas plays a key role in several MS. Although no scenario can be excluded for the future as Russia could remain an energy provider to some extent, the war on Ukraine has taken the EU-Russia energy relationship to a point of no return, and, regardless of the course of the war, it is difficult to think the EU will ever again feel comfortable depending on Russian resources to this same extent.

The EU's energy dependence has indeed been painfully evident since 24 February. Natural gas ties are the main problem for the EU. Although with relevant distinctions across the bloc due to different energy mixes, gas plays a critical role for heating EU homes and for meaningful pillars of our industry. European natural gas production has considerably decreased in the past decade because of the cessation of some gas fields, and Russia has historically been our largest supplier – in 2021 it accounted for around 45 per cent of EU gas imports and almost 40 per cent of its total gas consumption. Since autumn 2021, moreover, storage facilities had experienced an important underfilling (about 20 per cent less than usual), raising concerns for winter 2022 in case of a partial or total disruption of supplies from Russia. Current infrastructural and regulatory problems make our gas vulnerability even worse. Much of Europe's pipeline network is devised to transport Russian gas from east to west. Other constraints are related to the quality of gas or to the current LNG import and transport potential in Europe. Current emergency response mechanisms at the EU level are based on individual route disruption

scenarios, not on a systemic crisis such as a complete Russian disruption. Despite the strong vulnerability and the sharp rise in gas and electricity prices, just two weeks after the invasion the debate revolved around the possibility of ending gas imports from Moscow – then outlined in a reduction of two thirds by the end of 2022 and completely by 2027 through the REPowerEU plan. The EU is also relying on Moscow's oil, although the continent is less vulnerable because of wider diversification – in 2021, the EU imported 3.5 mb/d from Russia. EU hard coal imports from Russia are to be considered as well, having risen from 8 MT (7 per cent of total EU imports) in 1990 to 43 MT (54 per cent) in 2020 – thermal coal in particular. Against this background, the new political absolute is thus a fast reduction of Europe's overdependence on Russian resources, a plan for refilling gas storage for the winter and the priority to shield consumers from rising energy costs.

The skyrocketing energy prices have also created serious social problems and led many to ask for reforms of the electricity market. Energy prices were on the rise as of the second half of 2021 with price surges becoming ever more dramatic after March 2022. European governments have indeed responded with several initiatives and emergency measures to artificially lower gas and electricity prices, from hand-outs to households, to the imposition of gas and electricity price ceilings and reduced tax rates. In fact, in October 2021 the Commission tabled a toolbox for action and support to tackle rising energy prices, followed by another Communication issued in March 2022. Current measures to address surging prices however fall short of addressing structural issues in the EU electricity market. In particular, the marginal pricing system came under criticism by France accompanied by requests to reform it. Spain has been vocal in asking for "structural solutions" to decouple gas and electricity markets. Italy, Portugal and Greece have also urged the Commission to address the "contagion effect" of high gas prices on the electricity market. According to a report released at the end of April by ACER, however, "the current electricity market design is not to blame for the current crisis", although the report recognises that "some longer-term improvements are likely to prove key in order for the framework to deliver on the EU's ambitious decarbonisation trajectory over the next 10-15 years, and to do so at lower cost whilst ensuring security of supply". Further developments on this front are expected, as in May the EU executive pointed at possible electricity market reform options – without however elaborating on the timeline.

EU countries may struggle to import sufficient gas at reasonable prices to fill their storage capacity and diversify their imports. Solidarity and cooperation are key. These months will be crucial to fill storage sites and to organise import volumes to replace Russian gas. Gas storage plays an important role in the stability of the internal energy market, whose integrity must be preserved. As described in Dimension 4 of this issue, in March the Commission put forward a new regulation that requires member states to ensure a minimum of 80 per cent storage capacity by November 2022 and 90 per cent in the following years. In order to dispel the concerns from the member states having the largest storage facilities (e.g., Germany, the Netherlands) and incentivise the much-needed solidarity across the bloc, the regulation establishes a burden-sharing mechanism, so that other countries will financially contribute to this solution. Both the EU and the member states will exceptionally incentivise the energy companies to refill storage sites. Finally, because important gas storage facilities in the EU are owned by Russian subsidiaries, the Commission has also identified gas storage as a critical infrastructure.

But physical bottlenecks and high prices in the currently tight LNG market are problematic in the short term and require a strong coordination at both the EU and the international level. With REPowerEU the Commission attributes to LNG a key role in the short term, which is considered a way to replace up to a third (50 bcm) of Russian gas by 2022. Deliveries of LNG in April already hit a record high. In the past year, Europe has been sourcing LNG supplies from several markets, with the majority coming from the US, Qatar, Algeria and Russia. In this context, the EU and the US have highlighted their willingness to expand their cooperation on LNG. Deals have emerged between the EU countries and Qatar, and, most recently, between the EU and Israel and Egypt. On the European side of things, LNG capacity is not equally distributed across the continent and is not fully interconnected with the EU internal market. For instance, Spain, which holds a third of EU regasification capacity, has no connection with the Central and Eastern European gas system. Many countries do not have access to LNG and/or are heavily dependent on a single gas supplier (e.g., in central-eastern Europe and the Baltic). Also, as of today, the European network is not designed to transport large volumes of LNG. That is why Europe will need to invest in new transmission capacity to receive and move non-Russian molecules around the continent and offset supply disruptions. Internationally, the EU should work with producing countries to add gas supply rather than buying existing cargoes that would have otherwise been sold elsewhere, as the latter option would exacerbate supply shortages putting the EU in competition with other importers, further increasing the prices of additional volumes. To partly overcome many of these barriers, the EU has launched the EU Energy Platform – intended to pool demand, coordinate infrastructure use and negotiate with partners on gas, hydrogen and LNG. The idea is however not new (a similar initiative appeared in the Energy Union era). EU leaders have backed the proposal, although the way this will work is far from clear at the time being. Interesting ideas are circulating to make it work.

Furthermore, reconciling the "double urgency" of tackling energy dependence and climate change is easier said than done, yet a necessity. First, looking at the immediate circumstances, many of the measures taken to attenuate the price spike extensively subsidised fossil fuel. But besides these temporary initiatives, current circumstances could potentially deviate the EU from its green post-pandemic recovery, as governments and the private sector face difficult investment decisions that will affect our energy infrastructure for the years to come. Delaying the transition should be avoided at all costs: the current crisis only reinforces the need for a greener energy system. The objectives of the Green Deal coincide with those related to the EU's energy security, and there is an absolute need to implement it rapidly also from a traditional security lens. Recognising this double priority, a lot of "green" measures can be found in REPowerEU: as described in Dimension 1 of this issue, to help cut gas use more quickly, the strategy proposes a higher 45 per cent target for renewables' share of the EU energy mix in 2030, up from the 40 per cent goal proposed less than one year ago. This would mean almost doubling the renewable share of EU energy supplies over the next eight years. The Commission also suggests cutting energy demand 13 per cent by 2030, instead of the current 9 per cent, compared to 2030 projections. This implies amendments to legislation such as the EED and to recent proposals such as the EPBD (see Green Deal Watch no. 6). In an effort to achieve both security and decarbonisation goals, moreover, the Commission frames hydrogen and biomethane as key components in its

strategy (key for the heavy industry sectors) – ideally replacing 44 bcm of gas imports in total by 2030 (although this may be complicated to achieve).

Targets should however be better clarified. Importing significant quantities of non-Russian gas for our security raises questions over future EU gas needs, the length of contracts for alternative gas import volumes, and the looming risk of carbon lock-in effects. Moreover, the margin for the EU to reduce Russian gas dependency also depends on demand, which is not yet taken sufficiently into account: first, with the uptake of cleaner options and efficiency measures, European gas demand is expected to decline post-2030; second, REPowerEU itself reiterates its efforts for decarbonisation, energy efficiency and savings, measures that will further reduce unabated gas demand in this decade. It is not an easy task to judge the feasibility of the REPowerEU plan as it lacks a comprehensive impact assessment taking into account these changes and the sectors whose demand should pull related investments. On green hydrogen this is particularly evident: in view of the current costs of green hydrogen, many sectors (chemicals, steelmaking) could not adopt the technology in the coming years while remaining competitive; while in other sectors (transport, power generation) there are questions related to cost, efficiency and safety. Many, including environmentalists, are considering some these targets unrealistic.

The proposed legislation and informal guidance under REPowerEU will feed into ongoing negotiations around Fit for 55 and into member states' recovery plans, complicating the picture. The Ukrainian crisis broke out as major policy decisions are being negotiated within the EU on climate and energy: over the past year, the Commission has put forward several regulatory proposals to move to 55 per cent CO_2 emission reductions, making an ambitious agreement on "Fit for 55" proposals crucial to put European energy production and consumption on such a greener track. Von der Leyen declared that REPowerEU builds on the EU's existing climate goals; however, whether or not the proposals are followed now rests with domestic governments and the European Parliament, and the pathway is for the moment unclear. The financing and governance of the REPowerEU plan is another critical element. Central to the financing of these plans will be the Recovery and Resilience Facility (RRF) – the EU executive has proposed changes to RRF Regulation in order to allow member states to insert new chapters into their plans. They would then be able to access €225bn in unused RRF loans, as well as €20bn in RRF grants generated by selling off ETS allowances (the latter being the only innovative financial instrument proposed by the EU, which is however a debated measure given the potential depressive nature on carbon prices). Some have raised concerns about this plan, considering that the balance should be more towards up-front grants to allow green spending even in MS with little fiscal space.

While the EU has shown unprecedented levels of unity, intra-EU tensions between MS are emerging. Coordination at this stage is key. Following the invasion, western countries adopted a series of financial sanctions against Moscow with the aim of limiting Russia's access to hard international currency. As described in Dimension 4, a phase-out of Russian coal imports by summer 2022 has already been agreed within April's fifth package of sanctions imposed by the EU on Russia; more recently, MS have reached a deal to wean themselves off Russian oil although the impact will be softened by an exemption for most pipeline oil, notably a concession to Hungary. Viktor Orban, one of Putin's

closest allies in Europe, insisted on having additional money and time to modernise Hungary's oil infrastructure – a move to hit back at the EU after it froze some recovery money because of Orban's low democratic standards. Different reactions were also visible in other spheres: when, as a counter-move to sanctions, Putin ordered that payment for Russian gas supplies by buyers from "hostile countries" were to be made in rubles, European capitals reacted in different ways. While Russia almost immediately cut supplies to Bulgaria and Poland in response to their unwillingness to do so, others (e.g., major German companies) gave in to Putin's demands. At the time of writing however, the Kremlin is weaponising energy towards several countries, having fully cut gas supplies to Bulgaria, Poland, the Netherlands, Finland and Denmark, while partially to Germany, Austria and Italy. All this, while it enjoys high oil revenues (thanks to high prices) and in stark contrast with EU oil sanctions that will only become effective next year.

All eyes are on what happens in the next months. REPowerEU seem to go in the right direction respecting the climate-security balance, but there are criticalities as it seems overall a medium-term plan based on these premises: (a) the access to additional volumes of LNG (not easy as seen above), (b) the idea that Russia will continue to supply our markets for some time (not really a certainty), (c) the strong coordination of MS (not to be taken for granted) and (d) very ambitious green targets that are not fully assessed at the moment. The Commission must thus clarify some unclear aspects of its proposals, such as steps to achieve the proclaimed targets (e.g., on green hydrogen) and provide more guarantees that the decarbonisation roadmap is well integrated into the security one, favouring demand-side containment measures and accelerated deployment of renewables to the widest extent possible. In any case, whether or not the EU will succeed in setting a secure energy framework within Green Deal boundaries is now in particular in the hands of the EU Parliament and, above all, national governments that need to implement those measures and coordinate among each other. Strong political and technical synchronisation is required to respond to this incredibly complex security-sustainability-affordability challenge, requiring to join forces besides individual interests and to display solidarity – otherwise resulting in competition for the (limited) resources and a weak functioning of the cooperation mechanisms that the REPowerEU plan is all about. In fact, the invasion prompted an unprecedented series of measures that could transform the internal energy market in ways that seemed unimaginable a few months ago. If there is real cooperation and political will, the current gas crisis, coupled with the Green Deal, could be instrumental to further enhance European integration and to equip the bloc to manage energy and climate governance.

Dimension 1
Driving the Green Deal

The strong security focus of the past four months has for the moment not hindered the advancement of main green policies under the framework the Green Deal. The EU strategy has sped up the development of some sectors – renewable generation in particular, through the REPowerEU plan itself and the proposal of an EU Solar Industry Strategy in particular – while the progression of the Fit for 55 package and of other policies has continued. The REPowerEU plan officially focuses on "rapidly reducing dependence on Russian fossil fuels" as well as on "fast forwarding the green transition", including a variety of elements that for instance aim at reducing fossil fuels in the transport sector and at increasing energy efficiency, alongside the more predictable policies on security of supply and diversification of gas suppliers. Similarly, the EU has advanced other collateral sectors of the Green Deal, as in the case of the approval of the Union's environmental targets for 2030 (the 8th Environmental Action Programme) by the Parliament, adopted shortly thereafter by the Council. The discussion on the EU ETS has also advanced, through a compromise reached by the ENVI committee that, although delaying the adoption of some of the novelties within the system, also managed to successfully expand it (for instance to the maritime sector). Two weeks after it failed to win support, the European Parliament decided to begin negotiations with the Council on a proposal on the ETS that is less ambitious than the European Commission's in the short term, but reaches a higher overall reduction in emissions by 2030.

Key green policies within REPowerEU

Aiming at maintaining coherence with the climate priorities of the Green Deal and the pressure on energy security brought by the Ukraine invasion, the Commission has included a substantial component of green policies within REPowerEU. The plan upgrades the existing recovery and resilience plans (RRPs), already an expansion of the Green Deal to face the pandemic crisis, by adding REPowerEU chapters in national RRPs. In addition to this, the Commission launched a new EU Solar Industry Strategy (pairing the Offshore Renewable Energy Strategy of November 2020), amended the recent proposal for a new Renewable Energy Directive and delivered a

recommendation to ease approval of major renewable projects.
Hydrogen plays a significant role in the Commission's plans. The development of the resource was already going ahead before the launch of REPowerEU, thanks for instance to the 300 million euros dedicated by the Commission to hydrogen research through the EU's Clean Hydrogen Partnership in March. The same month the REPowerEU Communication set a target 20 million tons of renewable hydrogen by 2030 (ten produced domestically and ten imported), shortly followed by a joint declaration between the Commission and 20 industry CEOs to boost the capacity of electrolysing manufacturing by ten times by 2025. The new EU Energy Platform (discussed later in Dimension 4) involves joint purchases also of hydrogen (the resource being also often mentioned in the newly launched EU External Energy Strategy). Another significant development is represented by the two delegated acts published in May 2022 and followed by four-week consultations; the acts aim at speeding up the pathway towards new objectives by highlighting new rules for additionality (i.e., the fact that the renewable electricity used for renewable hydrogen production must be "additional" to already existing amounts) and for hydrogen's green status (i.e., its overall GHG emission reductions).

Working on energy efficiency and conservation

Energy efficiency also plays a role in the Commission's view (the overall binding efficiency target increasing from 9 to 13 per cent), with amendments needed to pillars of the Fit for 55 package, including the Energy Performance of Buildings and Energy Efficiency. Energy savings is one of the four areas of action of the REPowerEU Plan, through a "EU Save Energy" Communication included in the strategy. The whole documentation however still misses the level of ambition needed to promote what could be a (or even the) key element for both the transition and the reduction of Russian oil and gas supplies. The recently launched cooperation between the EU and the International Energy Agency (IEA) on a jointly developed Technical Support Instrument largely focuses on energy efficiency and demand management measures – something strongly highlighted in the IEA's 10-Point Plan to Reduce the European Union's Reliance on Russian Natural Gas, published in March 2022. But demand-side measures are one weak aspect of Commission and MS action as of today. Emblematic in this sense is the fact that only from late May have some member states (Germany for instance) started debating in the public sphere measures to boost energy conservation.

Other developments

Considering the Commission's activities beyond REPowerEU, the adoption of the 8th Environmental Action Programme (EAP) is perhaps the most relevant element fostering environmental action in the Union. This is the first of such programmes approved under the umbrella of the Green Deal and it embraces the new level of environmental ambition proposed by the Von der Leyen's initiative by adding six thematic priority objectives and a few relevant novelties. In particular, the EAP tries to assess the progression of states with a variety of indicators moving beyond the sole use of GDP and significantly focusing on the phase-out of fossil fuel subsidies by member states.
Other sectors advance as well. The Battery Alliance, already part of the Energy Union Initiative, has moved forward through the launch of a European Battery Academy and the definition of new priority areas of action for 2022. Most of all, the Commission's proposal for regulation on sustainable batteries progressed through the adoption by the Council of a general approach on the proposal, thus officially

starting negotiations for its approval. The proposed regulation focuses not only on the environmental sustainability of batteries, but on generally boosting circularity and reaching technology leadership in a sector in which Asian competitors, and China in particular, are very advanced. The debate on the EU ETS has also continued. The ENVI committee agreed on a report on the revision of the EU ETS demanding a total phase-out of free allowances in the years 2026–2030 (when the Parliament expects the Carbon Border Adjustment Mechanism, the CBAM, to be fully operational). The report also envisages the inclusion of maritime transport in the ETS, at first fully covering intra-EU and extra-EU routes only at 50 per cent, and then aiming for a total coverage of both. Such strong advancement is however balanced by a significant delay of the inclusion of private buildings and transport until at least 2029. Following this, the EP finally adopted a position on 24 June for the reform of the ETS; it involves the inclusion of road transport and of buildings in the so called "ETS II", an increase in GHG emissions reduction targets to 63 per cent (from the previous 61 per cent) and the obligation to use ETS revenues only for climate action, among the other elements. The position also dealt with the CBAM (which is directly related to the ETS), and proposed to introduce the mechanism earlier than expected, thus quitting free ETS allowances by 2032. The position also asks for a centralised CBAM authority and the use of some of CBAM payments to support least developed countries. The position finally discusses the creation of a Social Climate Fund, to reduce the impact of the energy transition on those affected by energy poverty in the EU.

Dimension 2
Greening Industry

A significant component of the Commission's action on the industry side has been dedicated to protecting it from further energy price fluctuations. As in the case of the other dimensions, part of this action has been developed under the framework of REPowerEU, even if success will largely depend on the member states' involvement and coordination. This is the case for instance with the cap on gas prices the Commission had debated even before the onset of the Ukraine invasion, with however more concrete action taken only in some MS (Spain and Portugal, for example) and not at the Union level. Despite insistent requests from a number of MS (including Italy) in June, the Council only confirmed an invitation to the Commission to explore the price cap – which will likely deliver its considerations in September. The Commission also presented more measures to face price volatility emergencies in the short term, building on the toolbox presented in October 2021. The work on the energy market has also concerned the infrastructure bottlenecks preventing the expansion of gas, oil and hydrogen import capacity from non-Russian sources, largely through measures or guidelines included in the REPowerEU plan. Meanwhile, the impact of the pandemic and of the war become increasingly evident on raw materials (particularly critical ones, a key component for the energy transition); yet, despite the growing reliance on Chinese imports, the Commission has yet to deliver the legislative proposal which is mentioned also in REPowerEU.

Supporting industry and citizens

As the Ukraine invasion added further volatility to the already critical situation, EU industries and households have been hit by a significant surge in electricity and gas prices. As a result of such a fragile situation the Commission has considered various market interventions, such as a maximum regulated price, to be applied only in emergencies and for short periods. However, member states are still at an early stage of discussion of the measure, the Commission having received the mandate to study the possibility for such a cap (only on pipeline imports) on 31 May. Some member states have however succeeded on achieving some results on this, with Spain and Portugal agreeing on a maximum gas price for electricity generation of EUR 50 MW/h for the next 12 months, hoping to reduce electricity prices, which rose as high as EUR 208.74/MWh in the Iberian Peninsula in May. Member states have

also taken an ample set of emergency measures to lessen the impact of surging energy prices on consumers and their industries; funding was generally wide with countries such as Greece, Italy and Spain allocating respectively more than 35, 23 and 20 billion euros (roughly 3.7, 2.3 and 2.1 per cent of GDP respectively) between September 2021 and June 2022.

Member states have indeed been significantly involved in support to domestic energy sectors. This has been mostly aimed at reducing the impact of rising energy prices on consumers, with significant stimulus and support packages such as the 15.5 billion raised by Italy from January to reduce gas, oil and electricity prices (and then followed in May by an additional, more general 12.2 billion euro stimulus package).

Most of the Commission's action in this sense regarded the short-term measures presented in May, concerning both the gas and the electricity market. The Commission proposed the extension of end-consumer price regulation also to industry and households, emergency liquidity measures for gas, the reallocation of windfall profits of energy companies to support consumers, and subsidies for fuel costs in regions with limited connectivity for electricity. It also proposed setting up a coordinated demand reduction plan as a last-resort measure against sudden interruptions. On the occasion of REPowerEU, the Commission also named the possibility of an electricity market reform (a demand raised by several MS), which will likely be explored more deeply in the months to come.

Infrastructure bottlenecks, transport and biomethane

The Commission also focused on domestic interconnections, to reduce the existing bottlenecks within the European energy system through connecting infrastructures and facilitating intra-EU exchanges. While the Commission has started loosening state aid rules for energy interconnection projects, the Council approved the revised the Trans-European Networks for Energy (TEN-E) Regulation, following the agreement with the Parliament in December 2021 and thus concluding its adoption process. The regulation envisages 11 priority corridors and three priority thematic areas and will allow for a limited investment also in gas infrastructures (roughly 10 billion in investments under the Projects of Common Interest, PCI, umbrella). Such improvements are needed due to the missing links in, for instance, the Southern Gas Corridor (between Greece and Bulgaria) or to reverse flows, but investors and environmentalists cast doubts over the risk of some of these infrastructures becoming stranded assets once the current crisis is over.

In addition to this, the Commission is boosting efforts for the substitution of fossil fuels in the industry and transport sectors, particularly through renewable hydrogen (discussed above), biogas and biomethane. The latter is the protagonist of a dedicated action plan, aimed at increasing production to 35bcm by 2030 from the 18bcm stated in the Fit for 55 package. In order to foster the development of biomethane, the Commission proposes in particular the establishment of an industrial partnership (such as those developed for batteries and hydrogen) as well as national strategies, a possible amendment of the Renewable Energy Directive to include the resource, and the promotion of cooperation with neighbouring countries.

Transport also received specific attention through a Contingency Plan published in May. The Plan includes ten actions mostly aimed at addressing crisis situations, building on the experience of the pandemic and the Ukraine invasion – and working on both exposed sectors (such as aviation) and transport of goods (to prevent supply chains disruptions).

Dimension 3
Supporting the Transformation

The ambitious changes proposed by the Commission with REPowerEU and to upgrade Fit for 55 require a significant improvement in investments, which have somehow been defined in the plan itself. REPowerEU's financial implications are estimated by the Commission at circa 300 billion euros by 2030, with only roughly 5 per cent dedicated to fossil fuels and gas in particular (mostly infrastructures related to gas distribution and LNG). The budget will be obtained through savings in the purchase of oil and gas as a result of the transition (totally circa 100 billion for the period considered). The other 200 billion will come from the RRF, ETS credits and a few other budget lines, such as Horizon and R&D funding (recently boosted to face the new challenges presented by the invasion of Ukraine). Even before the crisis, the EU however moved forward several aspects of the Green Deal financing, with the launching of an Investor Dialogue on Energy in March and the further advancement of European Green Bonds by the Council in April. The debate has however largely left aside the possibility of adding stronger green strings to this whole set of investments. The Parliament indeed fell short of the absolute majority necessary to reject the Commission proposal to include gas and nuclear inside the Taxonomy. Despite the intention of Luxembourg and Austria to pursue a legal challenge on this, the two resources will thus have access to green investments according to the Commission's eligibility criteria (for instance gas projects if they are replacing coal and whose emissions are below 270 grams of CO2 equivalent per kilowatt-hour). The decision follows a months-long debate, particularly after the publication of the Taxonomy Complementary Climate Delegate Act at the beginning of February, and has been contested by many among researchers, environmentalists and even investors, as it may undermine the credibility of the Taxonomy as a whole.

Support within REPowerEU

As detailed in the Staff Working Document, the 300 billion budget expected for REPowerEU would come from three sources: European, national and a mix of the two. The first element will involve a large set of policies, including the Innovation Fund (currently mostly funded by ETS allowances), Common Agricultural Policy (CAP) funds for energy-related activities (such

as biomethane and energy efficiency), earnings from the expected revision of the Energy Taxation Directive, Cohesion Policy Funds and PCI funding through the Connecting Europe Facility. Cohesion funds should come from voluntary transfers to RRFs and will amount to circa 26.9 billion euros, CAP to 7.5 billion and innovation funds 3 billion. TEN-E funding will also provide another 10 billion and cover most of the costs for gas infrastructures needed to make up for the decrease in Russian imports. The national side will instead come by upgraded RRFs and through national taxation. The Commission's proposal is to increase the current RRF by a total of circa 20 billion euros in grants through ETS allowances. Hybrid measures are instead identified among new industrial initiatives (particularly the Solar Industry Alliance) and by combined financing from the EIB, the Commission and member states. All of this is sided by guidance from the Commission on how to adapt RRPs to the new framework; the Commission's focus is on delivering "smart" investments, building on the current challenges to develop a more resilient EU energy system – as already happened for the expansion of the Green Deal through the post-pandemic recovery.

Other support to the Green Deal

The delivery of investments within the Green Deal framework has been significant also outside REPowerEU. NextGenerationEU delivered a new tranche of pre-financing of 9 billion euros in May, divided into a 6 billion 3-year bond (the first of its kind) and a 3 billion 30-year bond, welcomed with significant attention by investors (the 30-year bonds receiving bids for a total of 48 billion). It follows the 6 billion raised in April and brings the total to 111 billion (out of which 23 billion is in NextGenerationEU green bonds). The Council also brought forward the definition of European Green Bonds, through approval of the Council's position by EU MS permanent representatives and thus opening up to negotiations with the Parliament in the next months. This was indeed followed by the adoption of a position by the Economic and Monetary Affairs Committee of the EP in May. The position notably highlights the need for stronger transparency concerning gas and nuclear, likely also because of the much-debated publication of the latest Taxonomy Delegate Complementary Act.

Earlier in the year, the Commission, the EIB and the European Investment Fund signed a Guarantee Agreement for 19.65 billion euros for energy investments across the EU under the InvestEU Fund (formerly known as the European Fund for Strategic Investments, the EFSI, or the Juncker Plan).

Dimension 4
Strengthening Security and Diplomacy

The invasion of Ukraine and the prolonged crunch on energy prices turned a dimension left aside by the Green Deal into the dominant aspect of Brussels' agenda. In these months, the Commission had to retrieve the security-of-supply focus which belonged to the Energy Union vision, to revitalise energy diplomacy – necessary to reduce dependence on Russian fossil fuel imports – as well as to deal with the impact of growing energy prices on EU member states. The Commission had thus to manage the complex task of balancing and coordinating the different perspectives and actions of member states towards Russia, as well as on the US and G7 sides, on a number of issues – sanctions and diversification of supplies above all. While the REPowerEU plan is the most important tool it delivered to address the situation, as in the case of the other dimensions numerous other instruments have also been employed. Sanctions have been used from the beginning of the invasion, yet energy-related measures have been the hardest for MS to agree on due to the significant dependence of many on Russian gas, but also oil and coal – the last two the only resources which will be (partially) banned in the short term at the time of writing. Diversification of gas supplies has been a key component of the REPowerEU vision, although the energy divorce is pursued mostly at a domestic level. The EU External Energy Strategy and the EU Energy Platform will try to fill this gap and give more coordination among MS. Bold moves were however made since the beginning by both the Commission and member states, the most notable being the halt of Nord Stream 2 by Germany already in February. The discussion of voluntary joint gas purchases and of mandatory gas storage started in March, the latter becoming a concrete binding measure May.

Negotiations over sanctions

Sanctions have been the weapon of choice of the Commission to face the Russian invasion of Ukraine since the beginning. However, the significant dependence of some MS on Russian imports, such as Germany and Italy, and their political closeness to Moscow, as in the case of Hungary, turned the ban on fossil fuels into one of the harshest political discussions within the

EU in the past months. Out of the six packages of sanctions introduced at the time of writing, only the fifth and the sixth included fossil fuels. April's fifth package banned the totality of coal imports starting from August 2022; although progressively less important within the European energy mix, coal generation has become increasingly reliant on Russian imports in the past years, with Moscow supplying 45 per cent of Germany's coal in 2019, for instance. The sixth sanctions package focuses instead on oil where a partial ban has been achieved that by the end of 2022, should include most of Russian imports; the ban covers all seaborne oil – roughly two thirds of imports – but the voluntary ending of pipeline imports pledged by Germany and Poland should raise the total to nearly 90 per cent. The oil ban comes after harsh negotiations between the Commission and Hungary, which threatened to veto the sixth package over the oil proposal and finally led to the inclusion of the exception for pipeline oil in the definitive proposal. Sanctions on coal are expected to have a limited impact as imports have raised some 15 million euros a day for Russia in the past months, while the effect of oil sanctions could be greater – the contribution of oil exports towards the EU being estimated at roughly 270 million euros a day. Gas, the most important source of revenue in Russian imports, has however so far not been considered by the Commission for a ban, and this position is unlikely to change, at least in the short term.

Diversification and export strategy

In the past months, many member states have waged significant diversification efforts. Italy has been among those more involved in this sense, for instance signing a deal with Algeria's Sonatrach already in April, also including the possibility of green strings attached to the deal. Further, it has engaged in a number of talks with other countries, particularly in the African continent and the Eastern Mediterranean region. Germany opened to building LNG capacity already in March, in a swift and radical change of its energy strategy, turning this into concrete action through the charting of four Floating Storage and Regasification Units and planning the construction of three terminals. It also started negotiations with Qatar, one of the leading partners in the EU's diversification process of these months. The Commission itself has been working on diversification of supplies, which in particular strengthened the transatlantic ties to boost the EU's regasification capacity. While plans for diversification were already highlighted in the 8 March REPowerEU communication, further guidelines were provided with the EU External Energy Strategy, published in May within the full REPowerEU plan. The strategy adds a relevant (and so far missing) security-of-supply component to the Green Deal, updating the more than ten-year-old previous one, launched under the Energy Union umbrella. The strategy will aim at opening new channels for gas supply (Egypt, Israel and Western Africa) and strengthening existing ones (Algeria, Azerbaijan, Norway). The strategy also cites collaboration with G7, G20 and OPEC countries on oil and on nuclear fuels, and on preparing for growing hydrogen trade to secure the 10 million tonnes by 2030 needed to achieve REPowerEU targets. The strategy has also a component dedicated to the EU's neighbourhood, particularly on protecting Moldova, the Western Balkans and Eastern Partnership countries from energy crises and on rebuilding Ukraine's energy system damaged by the conflict.

Storage and joint purchases

Frequently named during the time of the Energy Union, compulsory gas storage levels and joint purchases largely disappeared during the EU's energy debate of the Green Deal, to reappear as gas prices were going up in

the second half of 2021 and especially after the invasion of Ukraine. The two elements were already included in the March communication, following a situation of low storage existing even before the invasion due to high Asian demand and slightly lower than usual Russian flows. The impact of low gas availability was reduced by a milder than expected winter, but played a significant role in both the debate on reducing Russian gas imports and on the EU's gas prices.

The discussion on common purchases led to the establishment of a joint platform, which was agreed at the Council level on 25 March and started its activities in April. Although still on a voluntary basis, the platform will focus on refilling storage for next winter at reasonable prices through key actions, such as demand pooling, coordinated use of gas infrastructures and global outreach, as well as the promotion of partners' export capacity.

Mandatory gas storage has been at the centre of a stronger debate, as the Commission was aiming at obliging member states to have a 90 per cent storage level by 1 October each year, as presented in the March REPowerEU Communication – a possibility the Commission was already discussing in February. The final proposal establishes a slighter lower 80 per cent level (increasing to 90 per cent from 2023), but was agreed in a relatively short time – the Council and the Parliament reached a final agreement in the first half of May, in time for preparation for the 2022–2023 winter. The Regulation also expects MS without underground storage capacity to collaborate with neighbouring countries and again recalled the possibility of voluntary joint gas purchases, for which the Commission is expected to provide further guidance in August 2022.

IN DEPTH

Interview Mechthild Wörsdörfer

Deputy Director-General DG ENER, European Commission

The efficiency targets are something we have never succeeded meeting in Europe, despite numerous attempts. Also, demand-side options could represent quick wins, especially in these circumstances, and the attention devoted to efficiency and energy savings in REPowerEU is very important and forward-looking. Are citizens prepared to save energy? How to modernise industry fast enough to achieve the targets presented by the Commission?

Saving energy and energy efficiency are the cheapest, safest and cleanest ways to reduce our reliance on fossil fuel imports from Russia and to ensure independence while advancing towards climate neutrality. In this framework, the European Green Deal and the energy proposals in the Fit for 55 package remain the cornerstone of our strategy to phase out EU dependence on Russian fossil fuels. Next to the focus on diversification of supply and storages preparedness, the current situation calls for an increase of ambition and acceleration of energy efficiency measures and renewable deployment uptake. The current high energy prices coupled with the REPowerEU measures drive a considerable increase in the cost-effectiveness of energy efficiency, and support a higher target in energy efficiency. This is why we have proposed in REPowerEU an increase from 9 per cent to 13 per cent of the binding Energy Efficiency Target under the "Fit for 55" package of European Green Deal legislation.

Whether as a consumer, industry or a government entity, we can all do our bit to reduce energy consumption. Together, our individual actions will reduce our energy bills, mitigate energy poverty, lower our dependence on fossil fuel imports, make our economy more resilient and accelerate the EU's clean energy transition. Therefore, the European Commission and the IEA recently outlined nine key energy saving actions under the heading "Playing my Part". Building on this, an "EU Save Energy" Communication detailing short-term behavioural changes which could cut gas and oil demand by 5 per cent and encouraging member states to start specific communication campaigns targeting households and industry has been published.

To support the industry decarbonisation, the Commission laid the foundations for a renewed industrial strategy in March 2020, encouraging the twin transition to a green and digital economy through numerous funds and a guiding stable regulatory framework.

Europe gets a huge amount of gas from Russia and is looking for alternatives – for which it should present itself as a credible demand hub in the medium term. With the uptake of cleaner options and efficiency measures, however, European gas demand is expected to decline post-2030. How to attach green strings to short and medium fossil fuels choices that are needed to guarantee our security, and thus avoid carbon lock-ins and investing money in the wrong direction?

The trans-European energy networks (TEN-E) policy has enabled already the completion of key infrastructure projects that have diversified supply sources and routes, making the European electricity and gas grid more robust and resilient. With the actual crisis and REPowerEU we proposed to mitigate the security of supply risks arising from a total disruption of Russian gas imports through limited gas infrastructure investments beyond the 20 gas projects already included in the current 5th Union list of Projects of Common Interest (PCI). In parallel and with a view to the long term and the achievement of our European Green Deal objectives, the revised TEN-E Regulation, soon to be in force, no longer foresees any further support for cross-border gas infrastructure. Instead, it strengthens its focus on electrification and the development of meshed grids in EU sea basins through targeted planning, permitting and regulatory provisions.

At the same time, the revised TEN-E introduces provisions for the repurposing of existing natural gas grids for renewable and low carbon hydrogen transport, alongside dedicate pipelines for hydrogen and IT-focused smart gas grids to tap into locally produced new gases.

To assure sufficient and efficient supply of gas, one vehicle for the diversification of supplies will be the EU Energy Platform and contacts with member states. This voluntary mechanism pools demand, coordinates the use of the import, storage and transmission infrastructure, and negotiates with international partners to facilitate common gas, LNG and hydrogen purchases.

Renewable hydrogen has emerged as a key solution to reduce our dependence on gas and oil and meet our sustainability objectives. The Commission has proposed objectives for the uptake of renewable hydrogen and derived e-fuels in hard-to-electrify transports/industries. How do we accelerate the scaling up of renewable hydrogen given the divergence among European states on hydrogen and the impacts of international instability?

Renewable hydrogen plays a key role in our REPowerEU plan and builds on the EU Hydrogen Strategy adopted in 2020 focusing on the production and use of renewable hydrogen in its pure form in hard-to-decarbonise sectors (industry and transport). In this context the REPowerEU Communication of 8 March formulated high ambitions with 10 million tonnes (mt) renewable hydrogen produced in the EU and 10 mt imported to the EU by 2030. The Commission already proposed sectoral targets in RED II to enable the uptake of renewable hydrogen in industry and transport.

To meet the domestic production goal of renewable hydrogen by 2030, the Commission relies on five major pillars. First, to provide a stable regulatory and investment framework and to set terminology and certification for low-carbon hydrogen as presented in the Hydrogen and Gas Market package. Second, we top-up Horizon Europe investments on the Hydrogen Joint Undertaking (200 million euro) to double the number of Hydrogen Valleys. Third, we published for public feedback two Delegated Acts on the definition and production of renewable hydrogen, the so-called delegated act on "Additionality". Fourth, Commission intends to complete by this summer the assessment of the first Important Projects of Common European Interest on hydrogen. And fifth, the Commission calls on industry to accelerate the work on missing hydrogen standards for hydrogen production, infrastructure and end-use appliances.

Finally, the European Clean Hydrogen Alliance, a collaboration between public authorities, industry and civil society, was also set up in July 2020 to accelerate the decarbonisation of industry in line with its climate change objectives.

Ukraine has been making progress in internalising the EU's energy acquis communautaire, and is also part of the Energy Community. What prospects (if any) do you see for Ukraine to participate more widely in the EU's Internal Energy Market?

The EU stands in full solidarity with Ukraine, as well as with Moldova and other partners that face the impact of Russia's aggression. Support for the short term (relief) and similarly the long term (reconstruction) will continue and be enhanced. Ukraine is closely tied with the European Union through the Association Agreement and its Deep and Comprehensive Free Trade Area. Ukraine is also a contracting party of the Energy Community. On 28

February 2022, Ukraine applied for EU membership, and it has expressed a strong will to link reconstruction with reforms, including with regard to a clean energy transition, on its European path.

The successful emergency electricity grid synchronisation with Ukraine and Moldova on 16 March is a major step towards ensuring security of supply. The next political priority is to allow for electricity trade with Continental Europe based on gradual increases of cross-border capacity, which was agreed by the TSOs of Continental Europe on 7 June. This is an important milestone towards the full integration of Ukraine's energy market with the EU, for which the EU is providing technical support to ensure the implementation of market reforms.

For future and comprehensive energy cooperation, the EU will also work with Ukraine to prepare the REPowerUkraine initiative. With it, we want to support Ukraine to "build back better" its energy system, with the aim to decarbonise Ukraine's energy sector transforming Ukraine into a significant exporter of renewable energy. The focus should be on energy efficiency, renewables, renewable hydrogen, biomethane and future-proof infrastructure. The EU will support this process both financially and technically.

The "just transition" is a pillar of the EU decarbonisation strategy – and it should actually be applied globally. However, there are different conceptions of what "just" means, not to mention the fact that decarbonisation builds upon already very different bases across the world. How is the EU moving globally to build win-win partnerships and foster a just transition in this time of complex and interconnected crises?

As the world's second wealthiest and second largest single market, we possess a significant economic, but also regulatory, standard setting and certification power. We also see our role in leading by example. The Just Transition Pillar of the European Green Deal is at the centre of the EU decarbonisation effort and is a key tool to ensure that the transition towards a climate-neutral economy happens in a fair way, leaving no region, no community and no citizen behind. This includes legislative initiatives to address energy poverty and financial support to most affected regions, in particular coal regions in transition, through the Just Transition Mechanism. The Commission also proposed a Social Climate Fund to provide financing for energy poverty.

Internationally, the EU wants to build long-term, mutually beneficial partnerships that will help to accelerate the global green and just energy transition to ensure sustainable, secure and affordable energy for the world. The focus of our energy cooperation with partner countries will therefore also systematically include the increase of energy efficiency and energy savings and accelerating the integration of renewable energy into the respective energy systems. Concrete examples are the Just Energy Transition

Partnership with South Africa, or the Just Energy Transition Partnerships with Vietnam, India and Indonesia.

The Commission also aims to accelerate the global green energy transition by facilitating sustainable investments and connectivity through the Global Gateway, e.g., the EU-Africa Global Gateway Investment Package.

The European Commission furthermore promotes and pushes forward the Global Methane Pledge.

APPENDIX | ROADMAP

The following list includes the major legislative and political actions of the European Green Deal since its launch in December 2019, along with a number of other EU initiatives supporting the Green Deal objectives.

In this roadmap the different elements are framed in one of the four dimensions analysed above – although some might cross-cut more than one dimension. Two special sections have been added to follow the specific activities proposed by the REPowerEU and the Fit-for-55 packages.

Focus REPowerEU

- European Commission Communication on 'REPowerEU Plan' (18 May 2022, here).
- European Commission publication of the 'EU Save Energy Communication' (18 May 2022, here).
- Adoption of the 'EU External Energy Strategy' (18 May 2022, here).
- European Commission Recommendation 'on speeding up permit-granting procedures for renewable energy projects and facilitating Power Purchase Agreements' (18 May 2022, here).
- Proposal for a Regulation on 'REPowerEU chapters in recovery and resilience plans' (18 May 2022, here).
- Proposal for a Directive amending Directive (EU) 2018/2001 'on the promotion of the use of energy from renewable sources', Directive 2010/31/EU 'on the energy performance of buildings' and Directive 2012/27/EU 'on energy efficiency' (18 May 2022, here).
- European Commission Communication on the 'EU Solar Energy Strategy' (18 May 2022, here).
- European Commission Communication on 'EU external

energy engagement in a changing world' (18 May 2022, here).
- European Commission Communication on 'EU Save Energy' (18 May 2022, here).

Focus Fit-for-55

- Revision of the EU Emission Trading System (14 July 2021, here) and revision of the EU Emission Trading System for Aviation (14 July 2021, here).
  - 18 May 2022: as part of the REPowerEU plan the Commission presents a legislative proposal amending the EU ETS Directive
  - 8 June 2022: The European Parliament rejects the report on the revision of the 'EU Emissions Trading System'
  - 22 June 2022: The European Parliament approves the legislative proposals related to the ETS reform
- Proposal for a Carbon Border Adjustment Mechanism (CBAM) (14 July 2021, here).
  - 15 March 2022: The Council reached agreement (general approach) on the 'Carbon Border Adjustment Mechanism' (here).
  - 22 June 2022: The European Parliament approves the legislative proposals related to the CBAM
- Review on national emissions reduction targets (Effort Sharing Regulation), based on 2030 climate target plan (14 July 2021, here).
  - 27 June 2022: The Council of the EU agreed to rise the EU-level target of energy from renewable sources from 32% to 40% by 2030
- Revision of the regulation on the inclusion of greenhouse gas emissions and removals from land use, land use change and forestry (LULUCF) (14 July, here).
- New renewable energy directive (14 July 2021, here).
- New energy efficiency directive (14 July 2021, here).
- Proposal for a regulation for strengthening the CO2 emission performance standards for new passenger cars and new light commercial vehicles (14 July 2021, here).
- Revision of the directive on deployment of the alternative fuels infrastructure (14 July 2021, here), European Commission proposal on the ReFuelEU Aviation – sustainable aviation fuels (14 July 2021, here) and European Commission proposal on the FuelEU Maritime – green European maritime space (14 July 2021, here).
  - 2 June 2022: The Council adopted a common position (general approach) on each of the three legislative pro-

posals of the Fit for 55 package that relate to the transport sector (alternative fuels infrastructure - AFIR, FuelEU Maritime and ReFuelEU Aviation)

- Revision of the energy taxation directive (14 July 2021, here).
- Proposal for a social climate fund (14 July 2021, here).
  - 22 June 2022: The European Parliament approved three legislative proposals related to the Social Climate Fund
- New forestry strategy (14 July 2021, here).
- Proposal on the regulation for internal markets for renewable and natural gases and for hydrogen, within the hydrogen and decarbonised gases package (15 December 2021, here)
- European Commission proposal for a directive on the energy performance of buildings (15 December 2021, here)

Driving the Green Deal

EU Hydrogen Strategy

For the production and use of clean hydrogen to help reduce the EU economy's carbon emissions.

- *8 July 2020:* Commission presented the strategy and launched the European Clean Hydrogen Alliance
- *10 July 2020:* Internal referral to parliamentary committee(s)
- *26 November 2020:* Committee referral announced in Parliament, 1st reading/single reading
- *11 December 2020:* Council adopted conclusions to rapidly upscale the market for hydrogen
- *19 May 2021:* Decision by Parliament: Text adopted by Parliament, single reading
- *18 May 2022:* The European Commission introduced the 'Hydrogen Accelerator' concept

EU Strategy on Energy Systems Integration

To transform the energy system through addressing its circularity, the use of cleaner electricity and the promotion of renewable and low-carbon fuels.

- *8 July 2020:* Commission presented the strategy
- *10 July 2020:* Internal referral to parliamentary committee(s)
- *19 May 2021:* Decision by Parliament: Text adopted by Parliament, single reading

Renovation Wave initiative in the building sector

The objective is to double renovation rates in the next ten years and reach higher energy and resource efficiency in buildings.

- *16 September 2020:* In her 2020 State of the Union address,

Commission President Von der Leyen proposed to set up a new European Bauhaus as a co-creation space to provide a distinct aesthetic in building renovations

- *14 October 2020:* Commission presented the initiative
- *16 October 2020:* Internal referral to parliamentary committee(s)
- *11 June 2021:* the Council of energy ministers approved conclusions that endorsed the EU renovation wave strategy.
- *17 September 2020:* European Parliament adopted a legislative proposal to revise the Energy Performance of Buildings Directive (EPBD)
- *15 December 2021:* Commission adopted a legislative proposal to revise the Energy Performance of Buildings Directive (EPBD)

Single European Sky

Aimed at a more sustainable and resilient air traffic management

- *22 September 2020:* Commission presented a proposal for an upgrade of the Single European Sky regulatory framework
- *22 October 2020:* Committee referral announced in Parliament, 1st reading/single reading
- *17 June 2021:* vote in committee, 1st reading
- *17 June 2021:* TRAN Committee decision to open interinstitutional negotiations with report adopted in committee
- *28 June 2021:* TRAN Committee report tabled for plenary, 1st reading
- *5 July 2021:* TRAN Committee decision to enter into interinstitutional negotiations announced in plenary
- *27 May 2021:* the Council of the European Union presented its amendment to the Commission proposal

EU Methane Strategy

To reduce methane emissions, focusing on energy, agriculture and waste sectors.

- *14 October 2020*: Commission presented the strategy
- *16 October 2020:* Internal referral to parliamentary committee(s)
- *18 May 2021:* ENVI Committee presented an own-initiative report on the strategy.
- *27 May 2021*: a public hearing on the EU strategy to reduce methane emissions took place at the meeting of the Committee on the Environment, Public Health and Food Safety
- *21 October 2021*: Parliament adopts a resolution on the initiative, asking for binding measures for all sectors.
- *15 December 2021:* The EU Commission proposed a 'Regulation on methane emissions reduction in the energy sector and amending Regulation (EU) 2019/942'

Offshore Renewable Energy Strategy

To harness the potential of offshore renewable energy for a climate neutral future.

- *19 November 2020:* Commission presented the strategy
- *21 June 2021:* PECH committee delivered an opinion on the matter

Trans-European Energy Infrastructure

Review of the guidelines

- *15 December 2020:* Commission presented the initiative
- *11 June 2021:* The Council agreed a general approach, despite considerable differences of opinion among Member States.
- *7 October 2021:* Parliament adopts its official position on the proposal
- *3 June 2022:* The revised 'TEN-E Regulation laying down new EU rules for cross-border energy infrastructure' has been published on the Official Journal of the European Union.

Forest Strategy

Part of the biodiversity strategy and covering the full forest cycle

- *29 January 2021:* Commission presented the strategy
- *16 July 2021:* the Commission adopted its communication on the New EU Forest Strategy for 2030, which aims to overcome the challenges faced by European forests, such as pressures from human activity and natural processes as well as the consequences of climate change.
- *15 November 2021:* Council adopted conclusion on the new EU Forest Strategy

Building a Climate-Resilient Future

A new EU Strategy on Adaptation to Climate Change

- *24 February 2021:* Commission adopted the strategy

Revision of the Regulation on the Trans-European Transport Network

- *26 May 2021*: Commission published the results of its evaluation of the Regulation
- *9 July 2021:* Commission response to text adopted in plenary
- *14 December 2021:* Commission presented a proposal for the revision of the trans-European transport network Regulation
- *15 March 2022:* The European Parliament has published the 'Revision of the trans-European transport network guidelines'

Sustainable fuels

- *14 July 2021:* Commission presented proposal for the Regulation on the use of renewable and low-carbon fuels in maritime transport
- *14 July 2021:* Commission presented a proposal for the Regulation on the deployment of alternative fuels in infrastructure
- *14 July 2021:* Commission presented a proposal for the Regulation on ensuring a level playing field for sustainable transport

Reducing Methane Emissions in the Energy Sector

- *15 December 2021:* Commission presented proposal for Regulation on methane emissions reduction in the energy sector

Intelligent Transport Systems

- *14 December 2021: Commission presented a proposal amendment to the framework for the deployment of Intelligent Transport Systems*

Greening Industry

New Industrial Strategy for Europe

Part of the Commission's objective "A Europe fit for the digital age", this is a comprehensive long-term strategy for Europe's industrial sector.

- *10 March 2020:* Commission presented the strategy
- *13 March 2020:* Internal referral to parliamentary committee(s)
- *3 September 2020:* Commission presented an Action Plan on Critical Raw Materials and the 2020 List of Critical Raw Materials
- *9 September 2020:* Internal referral to parliamentary committee(s) of Critical Raw Materials Resilience initiative
- *29 September 2020:* Launch of Critical Raw Materials Alliance
- *19 October 2020:* Commission Working Programme 2021 envisages updating the new industrial strategy for Europe to take into account the impacts of the COVID-19, the global competitive context, and the acceleration of the twin green and digital transitions. This should be presented in the second quarter of 2021.
- *19 April 2021:* Commission adopted revised EU guidelines on regional State aid.
- *5 May 2021:* The update was put forward by the Commission. The Communication particularly points to the need to strengthen the resistance of the Single Market to disruptions and to ensure continuity in the free movement of persons, goods, services, and capital; the need to analyse and address strategic dependencies, and the need to accelerate the green and digital transition.
- *2 June 2021*: Commission response to text adopted in plenary

Circular Economy Action Plan

Focused on the lifecycle of products and materials to ensure a sustainable use of resources and tackle resource-intensive sectors.

- *11 March 2020:* Commission presented the strategy
- *12 March 2020:* Internal referral to parliamentary committee(s)
- *14 September 2020:* Commission published a roadmap on the

Sustainable Products Initiative. This is expected to be presented in the fourth quarter 2021.

- *16 July 2021:* Commission response to text adopted in plenary
- *10 December 2020:* Commission adopted a proposal for a new regulation sustainable batterie
- *22 February 2021:* The Global Alliance on Circular Economy and Resource Efficiency was launched
- *28 October 2021*: Commission adopted a proposal to update rules on persistent pollutants in waste
- *17 November 2021:* Commmission adopted a proposal for new rules on waste shipments
- *30 March 2022:* The European Commission adopted package of measures proposed in the 'circular economy action plan'.
- *5 April 2022:* European Commission adopted proposals for 'revised EU measures to address pollution from large industrial installations'

Farm to Fork Strategy

To address priorities and challenges related to the European food chain.

- *20 May 2020:* Commission presented the strategy
- *29 May 2020:* Internal referral to parliamentary committee(s)
- *19 October 2020:* Agriculture and Fisheries Council adopted conclusions on strategy endorsing the goal of developing a European sustainable food system
- *7 April 2022:* The Agriculture and Fisheries Council adopted conclusions on carbon farming, based on the Commission's sustainable carbon cycles communication
- *28 April 2022:* The Open Public Consultation for the 'Sustainable food system framework initiative' was published

Chemicals Strategy for Sustainability (toxic-free EU Environment)

Set of initiatives for a toxic-free environment.

- *14 October 2020:* Commission presented the strategy
- *16 October 2020:* Internal referral to parliamentary committee(s)
- *7 May 2021:* Commission publishes roadmaps on the revision of Classification, Labelling and Packaging Regulation ("CLP") and on Registration, Evaluation, Authorisation and Restriction of Chemicals ("REACH") regulations.
- *9 August 2021:* Commission launches public consultation on CLP revision
- *20 January 2022:* Commission launched public consultation on REACH revision
- *10 June 2022:* The European Commission revised the 'definition of nanomaterials'

Batteries – Modernising the EU

Part of the new Circular Economy Action Plan, it aims at modernising EU legislation on batteries.

- *10 December 2020:* Commission presented the strategy
- *20 May 2021:* referral to associated committees announced in Parliament
- *23 February 2022:* the 6th High-level meeting on the 'European Battery Alliance' took place.
- *17 March 2022:* The Council adopted a general approach on a 'Proposal for a Regulation to strengthen EU legislation on batteries and waste batteries'

Action Plan for the development of organic production

To boost production of high quality food with low environmental impact

- *25 March 2021:* Commission presented Action Plan to develop organic production
- *20 May 2021:* the 8th NAT Commission of the Committee of the Regions (CoR) held an exchange of views on the Action Plan
- *11 June 2021:* the European Economic andSocial Committee (EESC) held an online public hearing as part of ongoing preparation for its opinion on the action plan. It will provide the perspective of civil society on the action plan's objectives and its underpinning actions
- *27 May 2021:* the Agriculture and Fisheries Council held an exchange of views on the action plan at its meeting
- *19 July 2021:* EU agriculture ministers adopted the Council's conclusions on this plan, expressing their overall support
- *23 October 2020*: consultation period concluded

Circular electronics

- *10 February 2021:* European Parliament published a New Circular Economy Action Plan supporting the initiative
- *23 September 2021:* Commission presented a proposal for a common charger for electronic devices
- *19 October 2021:* The Commission's work programme for 2022 planned the revision of EU rules restricting the use of hazardous substances in electronics for the last quarter of 2022

Proposal for a Just Transition Mechanism, including a Just Transition Fund, and a Sustainable Europe Investment Plan

Set of initiatives aimed at providing targeted support to alleviate the socio-economic downsides of the green transition.

- *14 January 2020:* Commission presented the proposal
- *29 January 2020:* Committee referral announced in Parliament, *1st reading/single reading*
- *27 May 2020:* Referral to associated committees announced in Parliament
- *6 July 2020:* Vote in committee, 1st reading/single reading
- 15 July 2020: Committee report tabled for plenary, 1st reading/single reading
- *17 September 2020:* Plenary vote and matter referred back to the committee responsible.
- *April 2021:* Council adopts position on €4.2 billion Single Market programme for 2021-2027.
- *26 April 2021:* Council presidency and the European Parliament's negotiators reach provisional agreement on public sector loan facility to support just climate transition.
- *26 April 2021:* EU Parliament and Council reached agreement on the Commission's proposal for a new Public Sector Loan Facility (PSLF).
- *27 April 2021:* EU Parliament adopts a more reactive and accessible European Globalisation Fund.
- *28 April 2021:* EU Parliament approved €4.2 billion Single Market Programme.
- *29 April 2021:* European Parliament approved deal to invest €5.4 billion in climate and environmental projects.
- *17 May 2021:* debate in Parliament
- *18 May 2021:* results of vote in Parliament: Text adopted by Parliament, 1st reading/single reading
- *26 May 2021:* Act adopted by Council after Parliament's 1st reading
- *23 June 2021*: end of procedure in Parliament
- *24 June 2021:* final act signed
- *30 June 2021:* final act published in Official Journal

Proposal on a European "Climate Law'" enshrining the 2050 climate neutrality objective

To set legal targets for achieving climate neutrality in Europe by 2050.

- *4 March 2020:* Commission presented the proposal
- *11 March 2020:* Committee referral announced in Parliament, 1st reading/single reading
- *11 September 2020:* Vote in committee, 1st reading/single read-

ing

- *17 September 2020:* Commission tabled an amendment to the proposed European Climate Law to include the 2030 emissions reduction target of at least 55 per cent
- *22 September 2020:* Committee report tabled for plenary, 1st reading/single reading
- *7 October 2020:* Plenary in Parliament voted the proposed 60 per cent reduction target amendment on the 2030 target
- *15 October 2020:* European Council discussed the climate target plan and decided to return to the issue in December with a view to agreeing a new emissions reduction target for 2030
- *11 December 2020:* EU27 leaders agree to cut greenhouse gas *emissions at least 55 per cent by 2030*
- *31 December 2021:* Commission is expected to draw up an EU GHG budget and consider introducing a target for 2040
- *21 April 2021:* EU Parliament and Council reached provisional agreement on the EU Climate Law.
- *5 May 2021:* Permanent Representatives Committee (Coreper) approved the agreement
- *10 May 2021*: ENVI Committee endorsed it
- *10 May 2021:* approval in committee of the text agreed at 1st reading interinstitutional negotiations
- *24 May 2021:* decision by Parliament, 1st reading: Text adopted by Parliament, 1st reading/single reading
- *28 June 2021:* Act adopted by Council after Parliament's 1st reading
- *30 June 2021*: final act signed
- *9 July 2021:* final act published in Official Journal
- *29 July 2021:* regulation entered into force

EU Biodiversity Strategy 2030

Set of initiatives to address biodiversity loss in Europe and advance a framework of actions to lead the 15th meeting of Conference of the Parties on the UN Convention on Biodiversity (CBD)

- *20 May 2020:* Commission presented the strategy
- *26 May 2020:* Internal referral to parliamentary committee(s)
- *21 October 2020:* Commission launches Knowledge Centre to reverse biodiversity loss and protect Europe's ecosystems
- *23 October 2020*: Environmental Council endorsed the objectives of the EU Biodiversity Strategy for 2030 and the nature protection and restoration targets contained therein
- *21 January 2021:* Committee referral announced in Parliament
- *28 May 2021:* ENVI Committee adopted its report
- *31 May 2021:* Committee report tabled for plenary
- *8 June 2021:* decision by Parliament: Text adopted by Parliament, single reading
- *12 July 2021*:first draft of the post-2020 global biodiversity framework was released

- *15 December 2021:* a proposal for a revised Directive on envi-crime is published by the Commission
- *22 June 2022:* The European Commission adopted a proposal for a 'Nature Restoration Law'.

2030 Climate EU Target Plan

To set the path towards Europe's climate neutrality in 2050.

- *17 September 2020:* Commission presented the proposal
- *June 2021*: Commission is expected to review, and where necessary propose to revise, all relevant policy instruments to achieve the additional emission reductions
- *17 September 2021:* Commission published communication stepping up Europe's 2030 climate ambition Investing in a climate-neutral future for the benegfit of our people

8th Environmental Action Programme (2021–2030)

To replace the previous EU Environmental Action Programme in line with the Green Deal objectives.

- *14 October 2020:* Commission presented the proposal
- *15 June 2021:* vote in committee, 1st reading; the ENVI Committee adopted its position
- *17 June 2021:* Committee report tabled for plenary, 1st reading
- *8 July 2021:* text adopted by Parliament, partial vote at 1st reading/single reading. the Parliament adopted amendments to the Commission proposal. Matter referred back to the committee responsible
- *1 December 2021:* European Parliament and Council reached a provisional agreement on the 8th Environment Action Programme
- *10 March 2022:* The European Parliament adopts the 'General Union Environment Action Programme to 2030'.
- *29 March 2022:* The European Council adopts the '8th environmental action programme'

LIFE Programme 2021–2027

Set of projects funded by the EU to advance environmental and climate objectives.

- *17 February 2020:* EU invests more than €100 million in new LIFE Programme projects to promote a green and climate-neutral Europe
- *1 April 2020:* European Commission launches its 2020 call for project proposals under the LIFE programme
- *16 November 2020:* Commission approved an investment package of more than €280 million from the EU budget for over 120 new LIFE programme projects
- *16 March 2021:* Council adopted its position at first reading
- *29 April 2021:* approved by the Parliament and the legislative resolution is adopted

- *17 May 2021:* new Regulation was published in the EU Official journal

European Climate Pact

Initiative for climate action that provides a space for people and organisations to exchange information and practices.

- *9 December 2020:* Commission presented the initiative

EU Taxonomy Climate Delegated Act

To help improve the flow of money towards sustainable activities across the European Union.

- *21 April 2021*: Commission adopted a package of measures comprising: the EU Taxonomy Climate Delegated Act, A proposal for a Corporate Sustainability Reporting Directive (CSRD); six amending Delegated Acts on fiduciary duties, investment and insurance advice will ensure that financial firms, e.g. advisers, asset managers or insurers, include sustainability in their procedures and their investment advice to clients
- *4 June 2021:* formal adoption of a first delegated act on sustainable activities for climate change adaptation and mitigation objectives by the Commission
- *6 July 2021:* the Delegated Act supplementing Article 8 of the Taxonomy Regulation was adopted by the Commission
- *9 December 2021:* the first Delegated Act is adopted
- *1 January 2022*: consultations on the Complementary Delegated Act, covering gas and nuclear activities, are launched by the Commission
- *2 February 2022:* Commission presents Complementary Climate Delegated Act to accelerate decarbonisation
- *2 February 2022:* The European Commission approved a delegated act including, under certain circumstances, gas and nuclear energy activities in the list of sustainable energy activities.
- *14 June 2022:* In a joint meeting of the ECON and ENVI Committee, MEPs adopted an objection to the Commission's proposal to include specific nuclear and gas energy activities in the list of environmentally sustainable economic activities covered by the EU Taxonomy.
- *6 July 2022:* The European Parliament did not object to the Commission's Taxonomy Delegated Act to include specific nuclear and gas energy activities, under certain conditions, in the list of environmentally sustainable economic activities.

Renewed Sustainable Finance Strategy

- *6 July 2021:* strategy was adopted by the Commission
- *9 July 2021:* Parliament has referred the dossier to the ECON Committee
- *8 December 2021:* Europea Economic and Social Committee (EESC) adopted an opinion on the Renewed sustainable finance

strategy

New EU Strategy on Adaptation to Climate Change

- *3 June 2021*: Council approved its conclusions supporting the new strategy
- *7 June 2022:* The European Commission announced the first 118 regions and local authorities that will participate in the 'EU Mission for Adaptation to Climate Change'

Strengthening security and diplomacy

Presented

New Strategy with Africa

Under the objective of "A stronger Europe in the world", this aims at intensifying EU-Africa cooperation with a specific focus on the green transition and the digital transformation.

- *9 March 2020:* Commission proposed the strategy

Green Agenda for the Western Balkans

Presented in parallel with the "Economic and Investment Plan for the Western Balkans" and envisaging actions around the same pillars as the European Green Deal.

- *6 October 2020:* Commission adopted a comprehensive Economic and Investment Plan for the Western Balkans and presented Guidelines for the Green Agenda for the Western Balkans
- *10 November 2020:* endorsement of the Green Agenda for the Western Balkans at EU–Western Balkans Summit in Sofia
- *4 October 2021:* the EU and governments from the Western Balcans agreed to implement the Green Agenda Action Plan

EU-China Comprehensive Agreement on Investment

To align EU-China trade on principles of intellectual property, technology transfer and sustainable development

- *30 December 2020:* an agreement in principle (not a legal text) has been reached between the EU and China, containing provisions on sustainable development

European Chips Act for semiconductor authonomy

- *15 September 2021:* Commission announced European Chips Act for semiconductor authonomy, a proposal is due in Q2 2022
- *8 February 2022:* The European Commission presented a proposal for a 'Regulation establishing a framework of measures for strengthening Europe's semiconductor ecosystem (Chips Act)'

Arctic

- *13 October 2021*: EU High Representative and Commission published a joint communication on a stronger EU engagement for a peaceful, sustainable and prosperous Artic

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