STUDY

ECONOMY AND FINANCE

AN EU FUTURE FUND: WHY AND HOW?

Background Paper of the Progressive EU Fiscal Policy Network

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The climate crisis, geo-economic challenges and the rise of the far right require new EU financing instruments for the socio-ecological transformation from 2027 onwards: Then, EU funding pots will halve in size, CO_2 prices will rise and new fiscal rules will bite fully.

Estimated conservatively, additional public investments of at least 1% of EU GDP per year are needed. A new EU future fund could close these gaps by raising private and public investments and steer the transformation in a politically and socially sustainable way.

Control by parliaments and participation of social partners as well as purpose-bound and socially conditionned spending should be key elements of a new fund.

FRIEDRICH EBERT STIFTUNG

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Content

1 INTRODUCTION 2

2 WHY DO WE NEED AN EU FUTURE FUND? 4

3 ADDITIONAL EU INVESTMENT NEEDS IN THE TRANSFORMATION 7

4 AN EU FUTURE FUND: KEY BUILDING BLOCKS AND OPTIONS 13

4.1 Areas of investment and the coherence of European investments 13
4.2 Instruments and disbursement 16
4.3 Financing and legal basis 17
4.4 Governance 19

5 CONCLUSION: HOW CAN WE ACHIEVE AN EU FUTURE FUND? 21

Bibliography 23

1

INTRODUCTION

In response to the climate crisis, new geo-economic challenges and the rise of radical right-wing forces in Europe we urgently need new EU funding instruments to manage the socio-economic transformation from 2027 at the latest. That is the only way to close growing investment gaps in the context of the transformation and prevent social divisions. The idea of an investment fund at EU level developed in this paper would offer concrete economic benefits through the transnational integration of the Single Market, substantial efficiency gains and economies of scale, and thus could usefully supplement national support measures in response to the transformation. Without a massive shift in investment policy it is clear that the decarbonisation of the EU economy will lag behind in the face of a deteriorating climate crisis and in competition with the United States and China. Furthermore, the German economy cannot go it alone. Without active accompanying measures the overwhelmingly regulatory and market-based instruments of European climate and transformation policy will prove increasingly socially unacceptable and only further exacerbate existing social and regional inequalities. That would impair the competitiveness and cohesion of the Single Market, which is so crucial for Germany, and could further boost anti-democratic forces in Germany and Europe, who are already making political gains on the back of frustrations with what is framed as an elitist and harmful market-driven transformation.

The creation of an EU Future Fund is a matter of urgency, for three reasons in particular:

(i) We need an EU Future Fund **to achieve a robust financial basis for the socio-economic restructuring of European economies**. The bulk of the transformation will be driven by private investments, but the state will also have a major role to play, not least because complementary public investments and public subsidies help to improve the basic conditions for private investments that hitherto have not been economically viable. Because an investment-friendly reform of European fiscal rules has failed to materialise a lot more resources need to be made available at the European level to close green funding gaps. In the context of (German and) European fiscal rules the European level has a key role to play in solving current financing problems, especially for strategic tasks, which also contribute to fiscal sustainability. Climate protection is a European public good (Buti/Coloccia/Messori 2023; Van den Noord 2024) and investments in the Energy Union, in the medium term, lower energy prices, inflation and debt levels (Wildauer/Leitch/Kapeller 2021). The restructuring of our economies and climate goals can be achieved and funded much more easily through a coordinated European approach than by nation-states trying to go it alone.

(ii) An EU Future Fund is needed **in order to ensure the unity and global competitiveness of the Single Market and to avoid distortions of competition within the EU**. Otherwise, going forward, only large Member States and those with sufficient resources will continue to actively support their industries with investment. The upshot would be an increase in economic divergence to the detriment of more vulnerable countries and their enterprises (di Carlo/Hassel/Höpner 2023). Similarly, from a business standpoint, a fragmentation of the Single Market might ensue, which would undermine its efficiency in geoeconomic competition as an integrated market on a continental scale.

(iii) **An EU Future Fund offers EU citizens a convincing answer to the ever-growing right-wing populist resistance to transformation and could thus counteract looming autocratisation in the EU.** To date, the transformation has had socially unacceptable consequences in many areas. These include private conversion costs, job losses, relocations, and a decline in collective bargaining coverage. Many people remain unconvinced by EU and German government climate policy. The current transformation policy approach is playing into the hands of right-wing populist and extreme right forces, who have been able to exploit uncertainty and lack of prospects in some parts of the population for their own purposes, both in Germany and in other EU Member States. In light of the next phase of emissions trading from 2026 and pressures for a return to fiscal consolidation, particularly from 2025, the Eurozone faces exacerbated distributive conflicts in the next few years during economically tough times. In the worst case, these developments could lead to the disintegration of the Single Market, which would also – and especially – hit Germany hard economically.

An EU Future Fund would be a key tool for managing the decarbonisation of our economies actively and democratically. The socio-ecological transformation affects economic sectors such as industry and manufacturing, which at present are overwhelmingly well organised, have codetermination and are covered by collective bargaining. That applies not only to Germany, but also other countries. An EU Future Fund would make it possible to strengthen Member States' ability to tackle the transformation and ensure decent jobs and sustainable prosperity. The socio-ecological transformation could thus itself be transformed from a primarily regulatory, market-based and national level approach into a project for European growth, which would lead to a better economic future and thus also restore political trust.

The strategic public investments we are calling for represent a sensible corrective to the economically and politically counterproductive fiscal austerity, which both Germany and the EU embarked on in 2023. The ruling of the Federal Constitutional Court on replenishing the Climate and Transformation Fund (CTF) plunged Germany into a budgetary crisis in 2023, to which the federal government responded with austerity measures, initially to the value of 23 billion euros. The effects on the 2024 budget were not as bad as had been feared, but they did mean that a substantial portion of the Fund's reserves were used up. From 2025 at the latest far fewer resources will be available, raising the prospect of further drastic cuts. Besides the political costs of months of consultations the cuts have also constricted support measures within the framework of the transformation (such as the environmental bonus for e-vehicles) and a lack of money for planned investments in the decarbonisation of buildings, industry and SMEs up to 2027. Budget cuts therefore put the brakes on the transformation and also lead to massive uncertainties with regard to planning at the affected companies and for their employees.

In parallel with all this the EU institutions reached a compromise on reforming EU fiscal rules (the so-called Stability and Growth Pact), which will oblige the Member States from next year to pursue fiscal consolidation, without significant exemptions for public investments, for example, in the ecological and digital transformations. Because public investments are typically the easiest budget items to cut this approach will damage the economy, as well as both productivity and competitiveness. Beyond these economic effects it will not reduce debt levels sustainably, quite apart from its political risks and long-term rising environmental costs. Furthermore, Germany's austerity course will affect future EU budgetary policy because the Federal Government is now under pressure to replenish the Climate and Transformation Fund even more than had been planned with resources from EU emissions trading system. Besides the spending already earmarked for the EU Climate Social Fund (Busch/Harder 2024) these funds thus cannot – as originally intended – be fully used as additional EU own resources for the EU budget without conflicting with national priorities (for example, to repay what was borrowed for the Recovery Fund or for new investments).

In order to get to grips with the historic task of transformation in a rapidly changing world and to ensure sustainable competitiveness for the Single Market, we recommend a European and future-oriented financial policy answer to enable the needed investment push, in particular for the period from 2027. In a first step this paper explains the necessity for additional investments for climatic, (geo-)economic and democratic reasons and outlines the scope of what is needed at European level in the context of the current fiscal policy status quo. We then develop a concrete but politically malleable model for an EU Future Fund from 2027. We recommend priority sectors and possible instruments for investments, estimate the necessary public investment needs and suggest ways of funding it and ensuring legal compliance, as well as methods of disbursement and governance for an EU Future Fund. Given the well-known obstacles and opposition to progressive fiscal reforms in Germany and Europe the paper then lays out a possible political path to making it happen.

2

WHY DO WE NEED AN EU FUTURE FUND?

The effects of the climate crisis are already unmistakeable in Germany. Massive additional efforts are required in order to achieve the European and national CO_2 emissions reduction goals. Every year extreme weather events are causing increasing damage and climate changes are already threatening people's livelihoods and economic fundamentals in both Germany and Europe. In other parts of the world the consequences are even more dramatic: people's livelihoods and thus economic and political stability are dwindling, leading to massive climate-related refugee flight, which by 2050 could increase to more than a billion people worldwide (UNHCR 2016; EPRS 2023; IEP 2023). According to current knowledge, there is no other option than to step up the pace of decarbonisation in the EU in order to achieve climate neutrality by 2050 and thus to limit global warming at best to below 2 degrees (European Climate Neutrality Observatory 2023; Climate Action Tracker 2023). After the Green Deal of the last EU Commission, halfway through the Traffic coalition in Germany and in the aftermath of the UN Climate Change Conference COP28 the situation is clear from a scientific standpoint: efforts and policy to date are just not enough to confine climate change to a path that ensures a liveable planet. The Emissions Gap Report 2023 of the UN Environmental Programme sounded the alarm (once again): despite record temperatures worldwide the emissions cuts that are supposed to achieved by 2030 will be missed unless our efforts are redoubled, even in the EU, and the ambitious reductions that are supposed to be achieved by 2050 are also in doubt.

The costs incurred by the status quo of insufficient climate action are, according to recent estimates, already high and are likely to far exceed the costs of the requisite additional climate investments. According to a recent study published in *Nature* the macroeconomic costs of climate damage worldwide by 2050 are already six times higher than the costs of climate protection measures that would limit warming to 2° C. The European Environmental Agency's Climate Risk Report 2024 calculated the annual costs due to climate damage in the EU by 2050 at between 0.5 and 2.5 per cent of GDP, depending on the relevant study and Member State.[1] Individual extreme weather events, however, could shift these estimated averages considerably upwards for the countries or regions affected. For example, the flood in Germany's Ahr valley in 2021 alone cost the state 44 billion euros, the flooding in Slovenia in 2023 cost just under 16 per cent of Slovenian GDP. From 2050 onwards, according to experts, climate damage is set to escalate even more dramatically in the absence of significant progress, which would make the cost of inaction even more expensive than that of climate investments.

The EU – and thus also Germany – is facing the historic challenge of transformation in a world of geopolitical upheaval. It can only be tackled together and drawing on the resources of the Single Market. Russia's attack on Ukraine and its consequences for energy and food supply chains has confirmed what the Covid-19 pandemic already showed: close global integration harbours not only opportunities but also geopolitical and protectionist risks and the potential for extortion. In response to such fears, we have seen – among other things – diversification of trading partners to reduce cluster risks, as well as partial regionalisation of key value chains for strategic sectors of the future within large economic blocs and regions, above all in China (at least since 2015) and in North America under Joe Biden. The Single Market is Europe's economic anchor and strategic ace in this increasingly multipolar world. For Germany, too, where one in four jobs depend on exports, the Single Market is by far its most important trading partner: more than half of German exports go to other EU Member States.

At present, however, the Single Market is under threat of fragmentation and falling behind in international competition, losing touch with the economic sectors of the future. Massive state support for decarbonisation and digitalisation under current policy in China and the Biden administration in the United States is putting the EU under pressure to pursue an active economic and industrial policy. Ecological modernisation has become the core of economic policy in both China and the United States. It has been estimated that in the United States the subsidies – on which there is no statutory limit – could rise to between 800 and 1200 billion dollars by 2031, in contrast to the sum of 380 billion dollars originally envisaged (Brookings 2023, IMF 2024). At the same time, in the wake of recent crises, fragmentation and economic divergence look set to continue.

1 A new (not yet peer reviewed) study by NBER even estimates the macroeconomic costs as up to six times higher than previous calculations, so that warming of 1 degree would correspond to an average GDP loss of 12 per cent (Bilal and Känzig 2024).

During the Covid-19 pandemic and the ensuing energy price crisis it was primarily the rich Member States that were able to provide active support sufficient to make a macroeconomic difference. An active economic and industrial policy is the right approach, which also requires reform of EU state aid rulesover the medium and long term. Furthermore, in a Single Market it must be ensured that all Member States are able to play an active role in shaping the transformation. To date, despite numerous proposals from the Commission, the Member States have been unable to reach agreement on fiscal policy solutions at European level, restricting themselves to a suspension of the ban on subsidies up to the end of 2024. The Member States have made use of this in very different ways (DG COMP 2024), just as they did in relation to subsidies during the pandemic (DG COMP 2022). This also included a new option, 'matching aid', which involved copying foreign subsidies for certain projects, in other words, granting companies aid in the Single Market to the extent it would verifiably be granted in a third state for the same investment. Recently, this mechanism was used in Germany for the first time for a Northvolt battery plant. A robust transformation policy will require reform of competition law from the ground up in order to adapt state aid law to achieve the objectives of climate neutral and resilient value creation, decent jobs, employment protection and employment development. Besides the adoption of a long-term perspective, further development of state aid law should set uniform and verifiable standards to ensure reliability, security of investment, and transparency. EU state aid law is obsolete in its current form. The 'matching aid' mechanism already mentioned is to be rejected, because it enables unconditional subsidies for companies, purely based on the fact that corresponding aid might exist in the United States. Subsidy policy must be embedded in a European investment strategy because otherwise there is a risk of further fragmentation of the European Single Market. Overall the industrial policy landscape in the Single Market remains primarily national rather than European, vertical rather than horizontal and reactive rather than strategic.

A key element that the Single Market to date has lacked is thus a common future-oriented investment programme that would give the EU an opportunity to establish itself as a pioneer for industries and jobs of the future at the leading edge of the transformation. This requires a massive investment push in the green and digital transformations so that climate goals can be achieved, competitiveness maintained and good jobs with collective bargaining coverage expanded. European affluence looks set to decline in the coming years if we continue to lose competitiveness and delay the socioeconomic transformation. Germany risks losses of just under 400 billion euros by 2024 due to energy price rises alone, while the United States recovered its pre-crisis level some time ago (Krebs 2023). National subsidy schemes must be supplemented by European initiatives (Demertzis, Pinkus and Ruer 2024) to be able to keep up effectively with global regions such as North America or giants such as China by means of comparable economies of scale. Productive investments by EU firms, for example, were lagging behind their US competitors even before the Inflation Reduction Act (EIB 2023). Clean Tech investments have exploded in the United States since the massive tax concession programme has been in place (Goldman Sachs 2023; Clean Investment Monitor 2024). The first signs of a similar investment boom seem to be emerging in Mexico, which has also felt the benefits of the Inflation Reduction Act. Productive and future-oriented investments on a similar scale in the EU do not seem to be on the horizon, apart from important flagship projects (EIB 2023). The competitiveness of the Single Market is not sustainably secured on the current path.

Our democracies, too, are likely to experience political consequences if no investment push is forthcoming to tackle the socio-economic transformation. The shift to the right currently taking place in the EU is indisputable. More than 15 per cent of the electorate, on average, now vote for right-wing populists, three times as many as did so in the mid 1990s (Popu-List 2023). This includes well-known right-wing populist majorities in Hungary and Italy (and in Poland until recently), and also Slovakia, as well as rising right-wing populists even in Spain and Portugal. A further rightward shift seems to be on the cards in the upcoming European elections in 2024. Observers predict more right-wing authoritarian gains, after significant increases in 2019. According to a recent FES survey (Giebler 2024) in six EU countries (Germany, France, Spain, Italy, Sweden and Poland) around 20 per cent of people intend to vote for right-wing authoritarian parties that are currently members of the Identity and Democracy and the European Conservatives and Reformists groups. There is thus a threat of massive harm to Europe's democracies. Right-wing populist governments demonstrably damage liberal democratic systems (Ruth-Lovell and Grath 2023). Ultimately – as we can already see in Hungary – they threaten to undermine democracy itself to the extent that the opposition no longer even has a chance of achieving a majority and the government can rule on an authoritarian basis without real accountability (Levitsky and Way 2020).

The authoritarian shift to the right in the EU is not connected to the migration debate alone, but also to the fears and personal adaptation costs of the transformation. It is becoming ever clearer that the radical right is gaining from its scaremongering about the ecological transformation (Forchtner 2019; Huber et al. 2021; Hoerber, Kurze and Kuenzer 2021). Also in Germany the AfD's current standing in the polls is due not least to the Traffic Light coalition's transformation policy, and was boosted by the Buildings Energy Act (Deutschlandtrend 2023). Citizens who live in regions particularly hard hit by structural change, according to the German Economic Institute, are more likely to vote AfD (Bergmann, Diermeier and Kempermann 2023). The right-wing appropriation of protests against the transformation was also evident in the recent farmers' protests against the transformation in Germany. This is also apparent in Sweden, where the government, supported by the radical right, rejected large parts of the country's existing climate policy and drastically slowed the pace of the transformation.

These right-wing populist electoral successes also stem from states' inability to act, having tied their own hands financially to prevent tackling the transformation proactively. A climate crisis that brings unbridled social and economic upheavals with it because of financial policy constraints further undermines the already shattered trust in democratic states' ability to provide for a better future and boosts its opponents (see also Krahé and Mühlenweg 2024). Populist electoral gains and polarisation, as is well documented, are also attributable to austerity policy, especially in crisis situations, when in fact more state support is needed (Baccini and Sattler 2023; Hübscher, Sattler and Wagner 2023). By contrast, in order to get to grips with the ecological transformation and to give citizens confidence in a better future rather than a 'fear of falling', states need to boost their capabilities more. Recent research shows that a welfare-oriented, training- and investment-friendly economic policy helps to reduce support for populists and that, for example, EU regional policy does a great deal to curb right-wing populist electoral success (Gold 2021; 2023, Gold and Lehr 2024). However, all these economic policy levers require sufficient financial leeway, which Europe's current fiscal policy status quo does not allow.

Opposition to the transformation in Europe will increase further when the next phase of European emissions trading starts in 2027, with dramatic effects on prices and disposable income. The next phase of emissions trading from 2027 onwards will raise CO_2 prices dramatically by at least an estimated 25 per cent (IETA 2023). Such market mechanisms do not necessarily include social compensation and will have unequal consequences, thereby further weakening acceptance of the transformation, especially among poorer households (Känzig 2023). A new study by the Friedrich-Ebert-Stiftung shows that a purely market-based approach to climate protection will encounter push-back from most of the population, in contrast to which other instruments and especially financial support for climate-friendly behaviour are very popular (Hagemeyer et al. 2024). Market-based instruments hit hardest not only those companies that pollute the most, but also companies and households whose disposable incomes are proportionately most affected by rising emissions prices; in other words, socially more vulnerable citizens, who spend proportionately more on energy, and also tend to work in more polluting sectors and in smaller firms, which are similarly threatened by heavier falls in sales. The Social Climate Fund that the EU has already adopted, which from 2026 is supposed to divert revenues from the emissions trading system to social support measures (see Table 1) will, because of its negligible size in relation to the economy as a whole, not be able to compensate for these socially unequal effects. At the same time, the enormous price rises could impose an additional burden on companies already under pressure due to the energy price crisis – especially in energy-intensive sectors – and narrow their investment options. That could make firms in countries relying heavily on green growth strategies even more inclined to relocate, putting pressure on jobs.

Eventually, the combination of market-based pressure and government austerity policies in the transformation can be foreseen to threaten the continued existence of the Eurozone and the Single Market, which is of existential importance to Germany. In the absence of clearly funded cushioning of the social impact and prospects for the future, trade unions, social movements and left-wing parties will not automatically get on board with increasing cuts in all sectors and force governments into concessions. Massive opposition to a restrictive financial policy and the EU climate goals can also be expected from right-wing populists. In the architecture of the Monetary Union financial market actors would once more begin to doubt the ability or willingness to pay of financially weaker or right-wing populist run states, such as Italy (and possibly soon France) and the will of the ECB to intervene to stabilise the bond markets. Conversely, AfD leader Weidel recently called for a 'Dexit' modelled on the UK's Brexit. This risk too would undermine the unity of the Monetary Union and of the Single Market in the eyes of financial market actors. However it turns out, the Eurozone would once again find itself in the self-fulfilling crisis scenario of the 2010s and would again threaten to plunge the Single Market into a profound financial crisis and recession. This would also pose an existential threat to the German economy, which is disproportionately dependent on it, especially in the context of the ongoing geoeconomic competition.

3

ADDITIONAL EU INVESTMENT NEEDS IN THE TRANSFORMATION

The investment needs for the socio-ecological transformation of the European economy are enormous and well documented. In order to reach the goal of climate neutrality by 2050 extra investments in the amount of 2 to 6 per cent of EU economic output will be required annually. In its impact assessment of the Fit for 55 package the European Commission itself calculated the needed annual extra investment at around 2 per cent of EU economic output in order to reach the climate goals by 2030. In the European Commission's Strategic Foresight Report of 2023 these additional investment needs, including the Net Zero Industry Act, up to 2030 were updated to 620 billion euros a year, around 3.9 per cent of EU economic output. Wildauer and Leitch (2022) argue, however, that the Commission's impact assessment underestimates the required investments because its analysis does not adequately reflect the needs of the building sector and research and development are not included. According to them the additional annual investment needs are around 6 per cent of EU economic output. According to the Institute for Climate Economics the investment gap in the building, transport and energy sectors alone by 2030 are over 400 billion euros a year (or 2.6 per cent of EU economic output). The most comprehensive sectoral report by the Institut Rousseau estimates the additional investment needs at 360 billion euros a year until 2050 (just under 2.3 per cent of EU economic output), although on the assumption that previous private and public investments in climate-damaging products and sectors (such as combustion engines, fossil fuels, chemical agricultural inputs or the construction of motorways and airports) will be redirected to climate-friendly investments. If this does not happen (or portions of this expenditure are considered still necessary), the required extra investments to decarbonise the EU economy will be correspondingly higher.

A large portion of these investments will have to come from corporations, but public sector investments will also be central, especially for decarbonisation. The role and proportion of necessary public and private investments in the context of the socio-ecological transformation will vary considerably from sector to sector and from Member State to Member State. Private investments have a particular role to play in industry and energy. In this case the public authorities largely have a supportive and incentivising function. The transformation of industry towards a CO_2-free economy is constrained by the fact that the new technologies and production processes or the switch from fossil fuels to green energy are still not competitive. For a transitional period, then, the state will have to provide a compensation mechanism in the case of investments in sustainable technologies for climate neutral production processes. Carbon Contracts for Difference are well suited for this purpose and have been welcomed by business (Sustainable Finance Advisory Committee 2023). Other forms of subsidy have also become important instruments of transformation financing in industry in recent years. An expansion of public investments is key in infrastructure, by contrast (which is essential for the energy and transport sectors, for example). Here the state, through investments in maintenance and expansion for infrastructure, directly creates the basis for decarbonisation of the economy. When it comes to further training and qualifications improved funding of state employment agencies and state support schemes is also crucial.

Existing studies suggest that the state will have to provide between 25 and 50 per cent of the financing needed to close green investment gaps (see Heimberger 2023). The data confirm that on average the public authorities, especially with regard to buildings, transport and agriculture, will play a key role in financing the transformation (see Figure 2). The Institut Rousseau recently estimated that for further decarbonisation in the EU total additional *public* investment of 260 billion euros a year will be required by 2030 (1.6 per cent of EU economic output), just under 60 per cent of total additional investments in the most important sectors (see Figure 1). Another reference point is provided by the precursor to today's InvestEU fund, the so-called European Fund for Strategic Investments (the 'Juncker Plan'), just under 40 per cent of which is supposed to be spent on climate investments: EIB borrowing on the basis of an EU budget guarantee (Griffith-Jones 2021) was used to stimulate private investment with an average public share of around 28 per cent between 2014 and 2021 (European Commission 2022). Given that large parts of this went to digital transformation and business innovation it can be assumed that here a smaller public share was needed than for the (remaining) difficult to finance parts of the socio-ecological transformation. These orders of magnitude are clearly enormous and are on top of existing investment gaps: in Germany, according to a recently published

Figure 1
Annual additional investment needs for decarbonisation in the EU, as a % of EU GDP, 2022

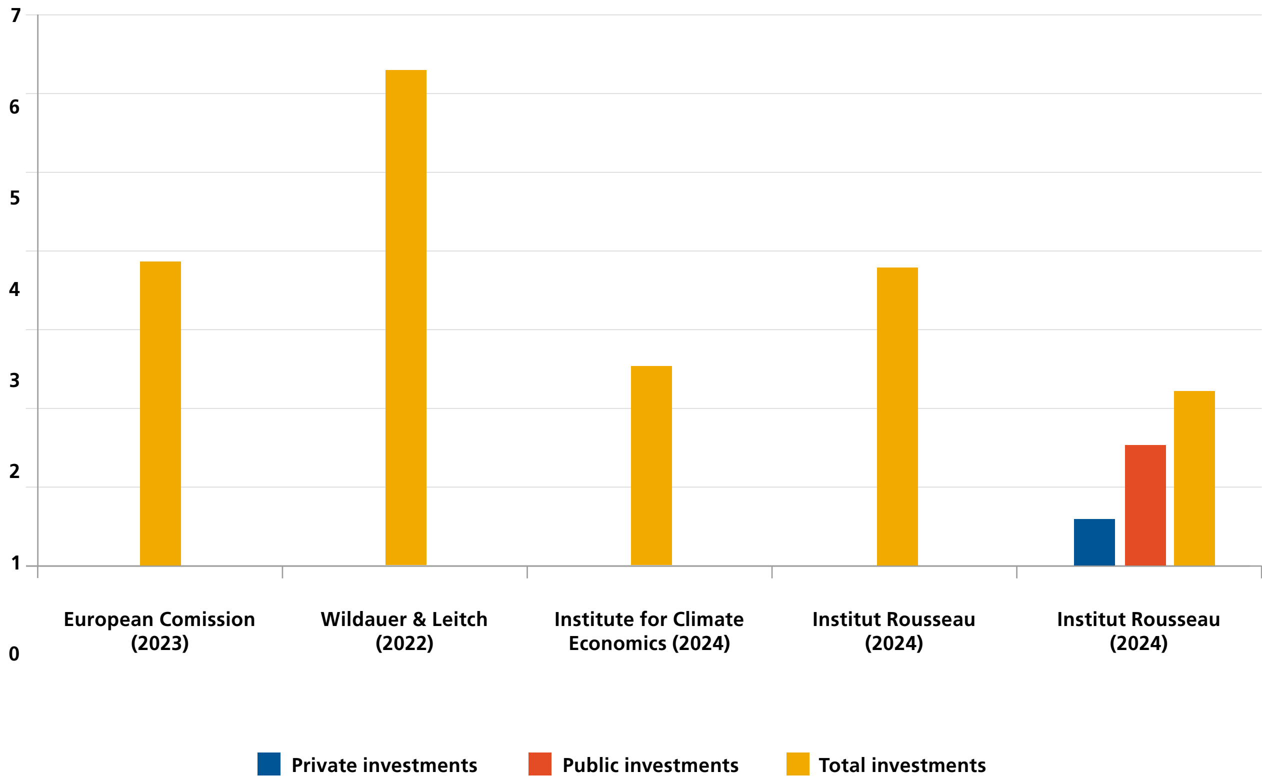
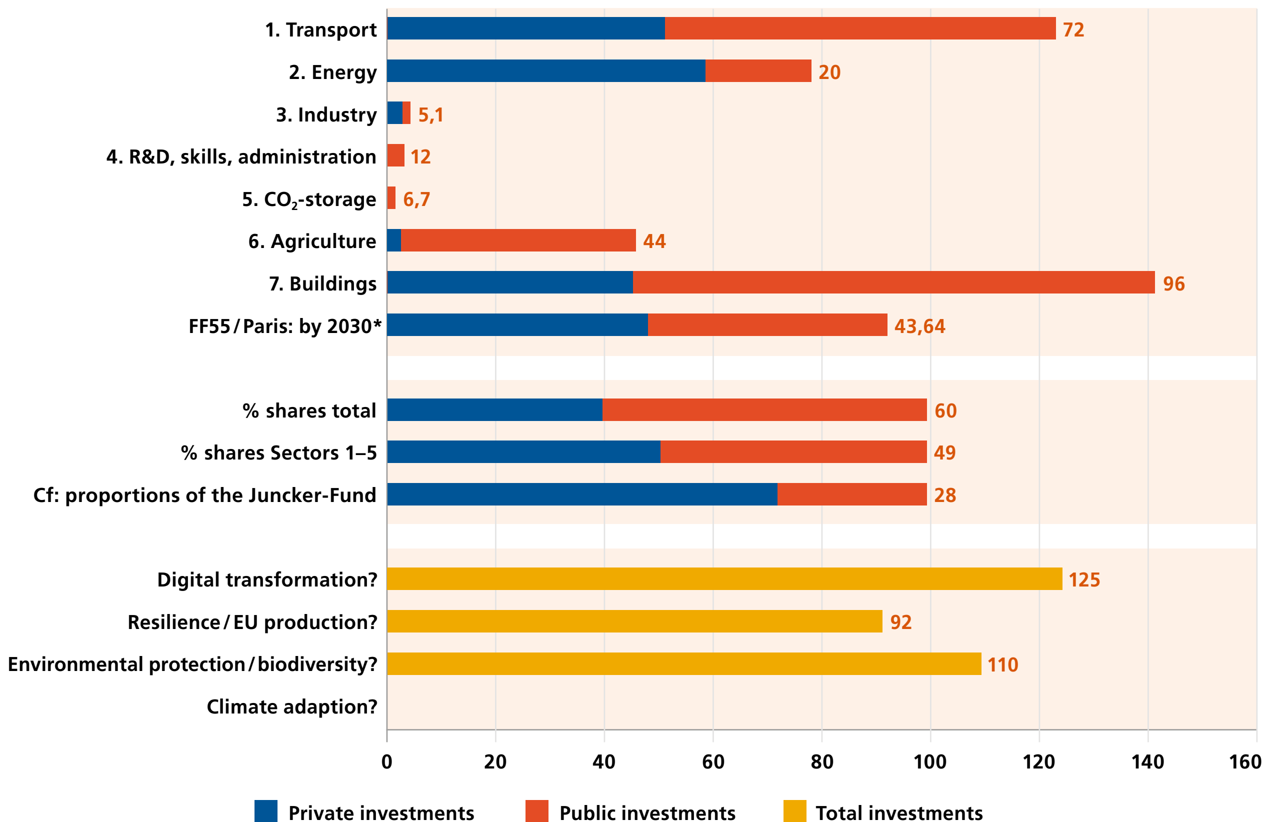


Figure 2
Additional private vs public investment needs in the EU per year, in billions of euros



* FF55/Paris = Additional investment for EU's Fit-For-55 target by 2030/Paris Agreement
Sources: Rousseau Institute (2024), Commission Environmental Implementation Review (2022), Commission Strategic Foresight Report (2023), Tagliapietra, Veugelers & Zettelmeyer (2023)

joint estimate by the German Economic Institute (IW) and the Macroeconomic Policy Institute (IMK), assessed public investment gaps at around 600 billion euros over the next 10 years (Dullien et al. 2024). The Institut Rousseau reaches a similar estimate for Germany only related to decarbonisation (1.2 to 1.4 per cent of economic output).

The abovementioned studies, however, calculate only the investments needed for decarbonisation of the European economies – additional investments will be needed if further important policy goals and challenges facing the Single Market are taken into consideration. To enhance resilience and, for example, reshore production with regard to critical infrastructure or locate green tech firms in the EU in accordance with the goals of the Net Zero Industry Act (that is, a 40 per cent share of EU-based production) additional investments of 92 billion euros would be required until 2030, according to the European Commission (Tagliapietra, Veugelers and Zettelmeyer 2023). Other important aspects *not* taken into account in this calculation include the costs of financing the digital transformation (around 125 billion euros per year until 2030, see European Commission 2023), compliance with environmental protection aims (avoidance of pollution, water conservation, biodiversity, etc. – see European Commission 2022: Table 1), as well as for climate adaptation measures (for which no serious estimates exist yet). Furthermore, a successful socio-ecological conversion of European economies will also call for additional investments in the social domain, especially with regard to further training and qualifications. Once again, concrete estimates of how much this will cost are lacking. Adding all these (known) public investment needs for the EU Single Market together (see Figure 2), the investment deficit will rise to at least 4.3 per cent of EU GDP per year until 2030.

Because of EU fiscal rules, national budgets have little room to manoeuvre when it comes to closing these public investment gaps. The new EU fiscal rules came into force on 30 April 2024. The reform could have ushered in a turn towards a socially and environmentally more sustainable economic policy. Unfortunately, the EU institutions were unable to agree on a future-proof reform. Even the original Commission proposal was problematic because it did not provide for preferential treatment for public investments in the form, for example, of a golden rule and otherwise offered few incentives for investment. At the same time, the requirement to reduce debt ratios in the medium term was retained. This combination hinders the implementation of a sustainable fiscal policy at Member State level that would be capable of meeting the challenges of the future. According to calculations by Dezernat Zukunft debt ratios in the EU are set to increase in the coming years simply due to higher refinancing costs for the state, demographic change and additional defence spending (Sigl-Glöckner 2023).

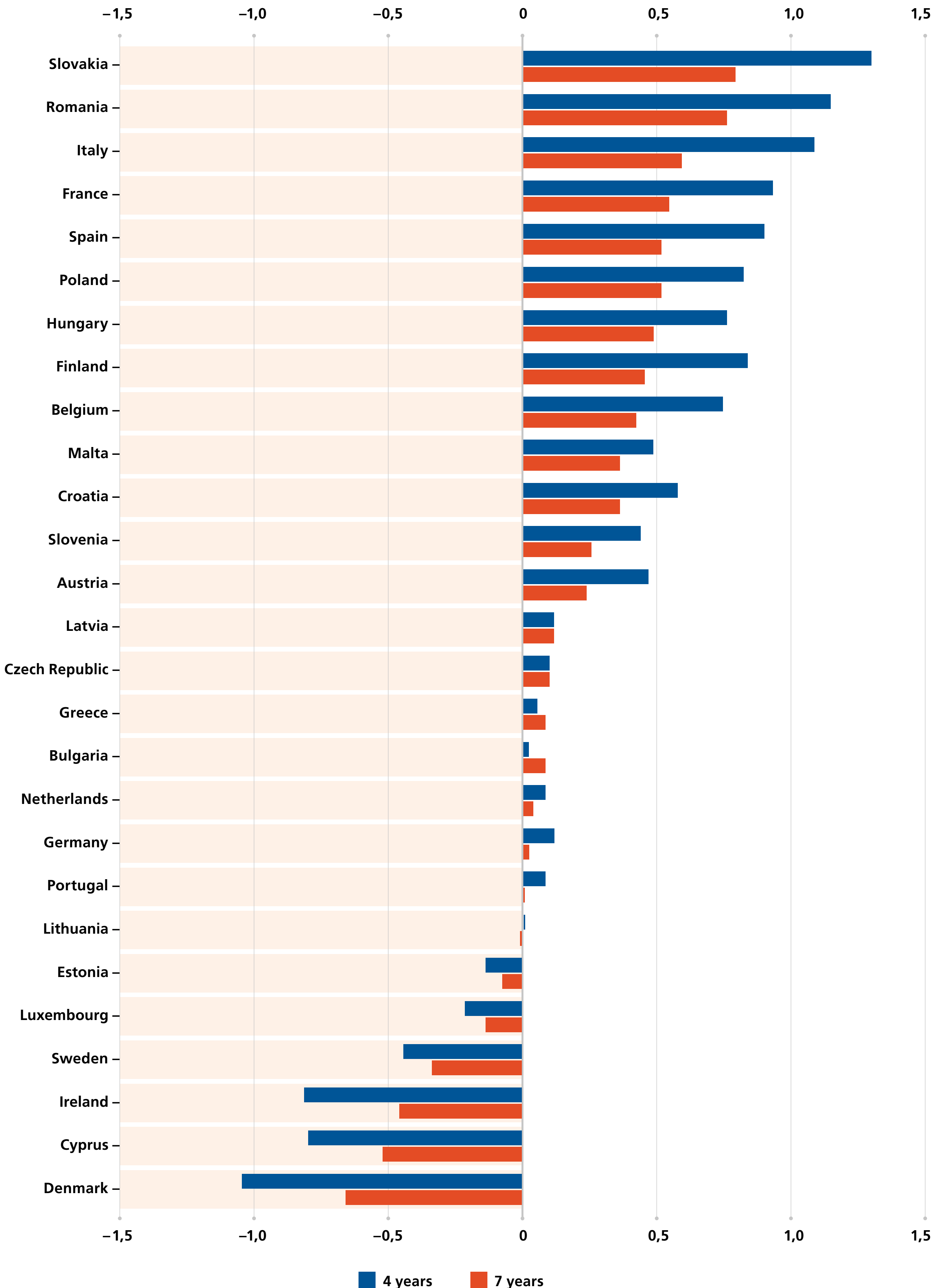
New calculations by the European Commission indicate that many Member States will have to make substantial budget cuts in the next few years. More specifically, this means that the Commission's debt sustainability analysis, which is the linchpin of the new regulations, is quite restrictive. Member States with high debt levels, such as Belgium, France, Italy and Spain, will have to implement cuts of up to 1 per cent of GDP annually. Even if the adjustment period is increased to seven years, which can be granted to Member States under certain circumstances, the consolidation pressure will remain high over the next few years (see Figure 3). It is improbable that governments will be able to prioritise public investments sufficiently in their national budget policies. It is more likely that public investments will come under massive pressure for cuts and/or that cuts will be made in social spending.

The current EU funding landscape will be unable to close this funding gap with regard to the socio-ecological transformation. The funding landscape is very heterogeneous with a variety of funds whose goal is to provide resources for the socio-ecological conversion of the economy (see Figure 4 and Table 1). First of all there is the Recovery and Resilience Facility, the core instrument of NextGenerationEU, the EU reconstruction programme adopted during the Covid-19 pandemic. The structural funds also play a central role. A large proportion of these two funds are used to finance climate investments. On top of that, at European level there are special funds with different emphases, such as the Innovation Fund, the Modernisation Fund and the Social Climate Fund. The latter three funds are financed with part of the revenues from the emissions trading system (ETS I and II).

EU funding instruments currently make an important (if not sufficient) contribution to financing the transformation, but they are set to expire in the foreseeable future. At the moment, over 60 billion euros in EU funding are used to finance the transformation (see Table 1), on average. When the Recovery and Resilience Fund expires almost half of the EU funding framework for the transformation will cease to be available (see Figure 4). Agora Energiewende's EU Climate Funding Tracker has identified the investments needed in the energy sector for each EU Member State if they are to meet the EU's 2030 climate targets and they have calculated the contribution of existing EU funding instruments to closing this investment gap. The upshot is that EU funding programmes have covered around a quarter of Europe-wide public spending on investments in clean energy, resources and energy efficiency to date. There are substantial differences between the Member States. In the central and eastern European Member States the investments needed in energy will be covered by EU programmes to a greater extent than in Southern Europe over the coming years. Here too there is an enormous funding gap after the expiry of the Recovery and Resilience Facility at the end of 2026.

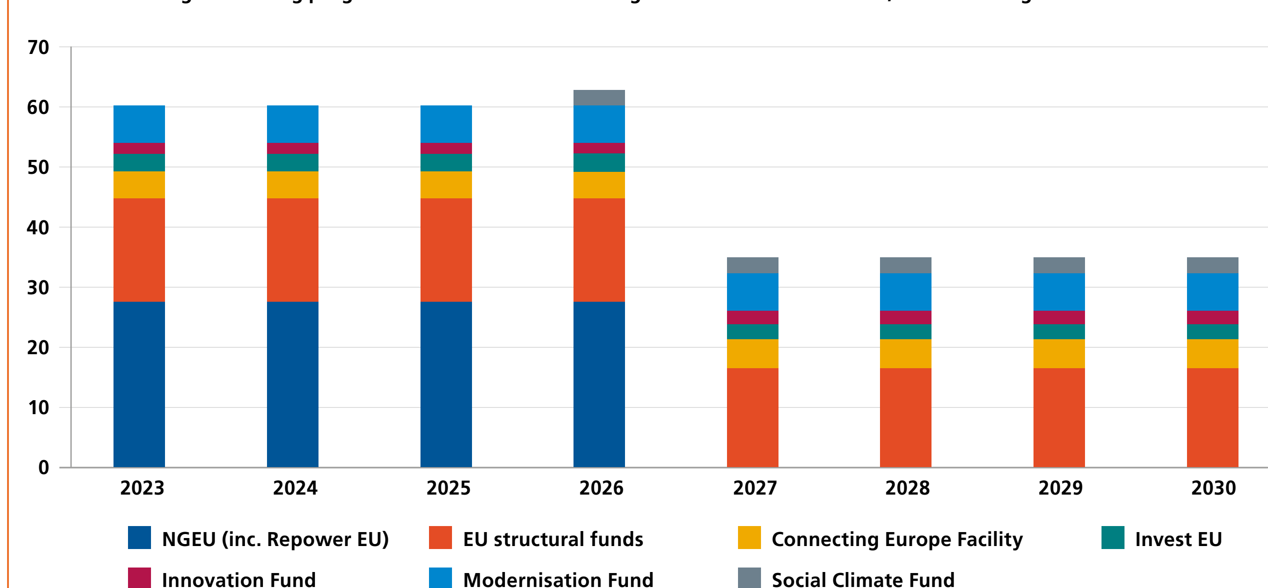
It is evident that the socio-ecological transformation of the European economy has a financing problem – and that means that so do the European Green Deal,

Figure 3
Fiscal adjustment from 2025 according to the new EU regulations
(structural adjustment of the primary balance as a % of GDP, based on an adjustment period of 4 or 7 years)



Source: Darvas, Welslau and Zettelmeyer (2024)

Figure 4
Shares of existing EU funding programmes used for sociol-ecological conversion 2023–2030, annual average in billion €



Sources and composition: see Table 1

Table 1
Existing and planned EU investment funds for the socio-ecological transformation

Fund	Amount (billion euros)	Duration	Amount per year, on average (billion euros)	Volume (% EU27 GDP per year)	Purpose	Financing
Recovery and Resilience Facility (including Repower EU)	166.2	2021–2026	27.7	0.17	Projects for the social and ecological transformation	Issuance of EU bonds
InvestEU (sustainable infra-structure & research, innovation, digitisation)	16.5	2021–2027	2.75	0.02	Use of private investments in the area of sustainable transport and innovation, including industrial decarbonisation	Multiannual Financial Framework & issue of EU bonds
EU structural funds (including Just Transition fund)	119.3	2021–2027	17.0	0.11	Projects for the social and ecological transformation Projects in the area of the circular economy, curbing climate change and adaptation to climate change, risk prevention and sustainable urban mobility/projects to cushion the impact of the transformation in the hardest hit regions	Multiannual Financial Framework
Connecting Europe Facility (only energy and transport)	31.7	2021–2027	4.5	0.03	Projects for the transnational integration of the Single Market in energy and transport and emission-reducing rehabilitation of existing energy and transport infrastructure	Multiannual Financial Framework
Innovation Fund	23.4	2020–2030	2.1	0.01	Innovation in energy-intensive industries Carbon Capture and Storage (CCS) Carbon Capture and Utilisation (CCU) Energy storage	Emissions Trading System (ETS)
Modernisation Fund	59.8	2021–2030	6.0	0.04	Modernisation of energy systems and upgrading of energy efficiency, especially in eastern European Member States	Emissions Trading System (ETS)
Social Climate Fund	17.4	2026–2032	2.5	0.02	Financial compensation for disadvantaged households, micro-enterprises and transport users	Emissions Trading System, including buildings and transport (ETS+ ETSII)

Sources: Authors' presentation based on Agora Energiewende's EU Climate Funding Tracker (agora-energiewende.org) and European Commission (Connecting Europe Facility). GDP data for the EU27 from 2022 at market prices (Eurostat). Loans from the EIB and other development banks to private market actors without state/European budget guarantees and loans to states in the RRF are not included here, although the budget guarantees of the InvestEU Programme for the additional public backing of EIB loans are included.

the implementation of the Paris Climate Agreement and even the economic future of the European Single Market. At European level the existing EU funding instruments are already inadequate and will only shrink further in the next few years. At the same time, the consolidation pressure on national budgets due to the reactivation of the (reformed) EU fiscal rules is set to increase substantially, so that the lack of public investments cannot be compensated by more national spending. Large sums required to cover the public share of the investments needed for the transformation are lacking.

4

AN EU FUTURE FUND: KEY BUILDING BLOCKS AND OPTIONS

Against this background we propose a joint fund to ensure a sustainable European future in the ecological, economic and political domains. The focus of the EU Future Fund should be on making public resources available to help the private sector and Member States in the socio-ecological restructuring of their economies, in particular with respect to those investment projects that provide European added value. The EU Future Fund, in addition to combating climate change, would thereby make an important contribution to enhancing the unity of the Single Market and ensuring the sustainability of its global competitiveness for the future, and last but not least contributing to democratic stability.

The new fund should be launched latest with the expiry of the Recovery and Resilience Facility at the end of 2026. The duration of the EU Future Fund should at least cover the period of the next Multiannual Financial Framework, in other words, from 2027 to 2034. This would guard against too drastic cuts in public investment programmes in view of the new fiscal rules and depleting EU coffers. Ideally, the Fund could be established from the outset with a duration up to 2050 in order to align with the EU's declared policy objective of achieving climate neutrality by then.

As the next few sections describe, an EU Future Fund should, in our view, account for at least 1 per cent of EU GDP per year in order to close the existing investment gaps within the framework of an intelligent division of tasks between the Member States. The support instruments should contain both incentives for private investments and direct public investments and can be disbursed in a variety of ways both to Member States and directly to firms. Regardless of the precise legal basis, limited Member State contributions enhance the importance of new EU own resources, both for the repayment of NextGenerationEU loans and for enabling sufficient new investments via the issuance of EU bonds, which appears to be indispensable given the scale of the gaps. Lessons for the governance of the Fund should be drawn from experience with the Recovery and Resilience Facility and other existing EU programmes. Clear social conditionalities and an effective involvement of parliaments and social partners should be ensured.

4.1 AREAS OF INVESTMENT AND THE COHERENCE OF EUROPEAN INVESTMENTS

Given the enormous public investment needs for a sustainable transformation of the Single Market of up to over 4 per cent of EU GDP an intelligent division of labour between national and European level will be essential in future European investment policy. An EU Future Fund of course cannot close all investment gaps simultaneously, but it should help Member States above all in funding strategic investments. The European level should be used to tackle acute financing problems at national level for investments in strategic areas of clear transnational economic added value. The current policy of restricting national budgets in the EU must therefore be accompanied by a jointly prioritised investment policy in order to ensure that an excessive focus on spending cuts does not result in curtailed growth and delayed transformation costs. This would contribute decisively to ensure fiscal sustainability in the Single Market in the medium term.

Defining which investments are to be 'European strategic investments' in the future should be part of a structured political negotiation process between the Member States and the EU institutions. Ideally, this issue should also be the object of the European economic policy coordination process, at the centre of which is the European Semester. The European Commission and the Member States should decide jointly which investment projects have European added value and are in the EU's strategic long-term interests, and should thus receive EU-level funding. In other words, which investment projects should be implemented at national, regional and municipal level and how the necessary fiscal policy leeway could be created through tax policy reform.

We can hone in on the areas of EU strategic investment by means of existing decisions and EU law. In general, the EU has most legislative competence in relation to the Single Market, so this is where the focus of joint investment efforts should (continue to) lie. In the context of reform of the EU fiscal rules, for example, various EU economic policy priorities were laid down in the regulation on the preventive arm of the Stability and Growth Pact. Particu

larly important priorities in the context of transformation include: (i) a fair green transformation, including the climate targets in accordance with EU regulation 2021/1119; (ii) social and economic resilience, including the European pillar of social rights; and (iii) security of energy supply. Important EU economic policy goals are also defined in the Green Deal Industrial Plan, including the Net Zero Industry Act. Accordingly, strategic European investments are those that help to achieve these goals. European financing of these investments is thus justified if added value emerges as a result, for example because investments at the EU level can be implemented better and more efficiently.

From our perspective, four areas of investment at EU level are particularly important: (i) infrastructure, including transport; (ii) completion of the Energy Union; (iii) strengthening the European industrial base; and (iv) social investments, especially in further training and qualifications. A coordinated European approach in these areas could ensure, first, that the necessary investments are actually made, despite the different budgetary situations in the Member States, and thus CO_2 reduction targets could be achieved effectively. Second, it could help to ensure global competitiveness for the economic sectors of the future. Finally, this could prevent the consolidation of macroeconomic imbalances in the EU and thus the incurring of related economic and political costs.

(a) A European infrastructure agenda

Investments in the expansion and maintenance of well functioning infrastructure have a key role to play in the socio-ecological transformation. On one hand, they create the conditions for a mobility transition and thus a transformation of behavioural structures in the choice of means of transport. On the other hand, infrastructural investments improve the framework for expanding private investments. Investments are required at different levels with regard to infrastructure. The EU urgently requires a common cross-border infrastructure. The expansion of a cross-border express train service, for example, would be an important infrastructure project that would boost economic potential and make a substantial contribution to CO_2 savings (Creel et al. 2020). On top of that, in many Member States massive investments are needed to modernise and increase the capacity of railway tracks, especially in long-distance and freight transport. The EU should also do more to help the Member States in investment projects aimed at enabling the capture, use and storage of CO_2.

(b) Completion of the Energy Union

There should be a particular focus on investments to complete the Energy Union. Restructuring of the energy sector and energy infrastructure represents the backbone of the socio-ecological transformation of our economy. Investments in a cross-border energy infrastructure must therefore be one of the main points on the European investment agenda. The EU could accordingly support cross-border investment projects with resources from the EU Future Fund. Beyond that, the EU could help the Member States in expanding electricity transmission and distribution networks. Other key projects – which are in the EU's strategic interest and require the involvement of the public authorities – include the expansion of renewable energies, expansion of energy storage facilities, and the development of a pipeline network for hydrogen or the conversion of existing gas pipeline networks, as well as measures to boost the energy efficiency of buildings.

(c) Strengthening of the European industrial base

The EU Future Fund should have a strong industrial policy component. European industrial locations are under increasing global competitive pressure. European companies face high investment and energy costs. An active state support policy would be decisive in maintaining European prosperity and, at the same time, make our economy fit for the future. The transformation should not be left to the markets. Future technologies, which are indispensable for climate neutrality, must be actively promoted. Public EU funding in particular should be concentrated in those sectors in which the EU, after a temporary support phase, can become internationally competitive. This includes battery cell production or the market for clean hydrogen (Jansen, Jäger, Redeker 2023). But a focus solely on selected *clean tech* industries does not go far enough. We need to take the whole value creation chain in our purview and, where possible, strengthen its future viability, not least through incentives for industrial production in research-intensive sectors of the future. On top of that, industrial sectors at the beginning of the value chain for key technologies and clean tech are also of central importance (such as steel, chemicals, glass, ceramics and cement). The production in Europe of key primary products also secures employment in related sectors, strengthens the resilience of the European economy and reduces economic dependencies in a period of geopolitical uncertainty.

(d) Social investments

The decarbonisation of our national economies poses major challenges for society. A socially responsible transformation of our economies will be possible only if the populations of the Member States are properly prepared for the new skills requirements and educational and training institutions are improved accordingly. There is particular need for action when it comes to employee further training and qualifications (see Jansen 2023 for a more specific estimate). Both employers and policymakers will have to contribute to this. Numerous studies confirm that certain social investments enhance worker productivity in the medium to long term and thus boost economic growth (Alcidi, Corti, Gros 2022). Besides infrastructure, energy and industry an EU Future Fund would thus help Member States to fund certain expenditure on education and training. State spending on early childhood education would also come under this heading, along with support programmes for the integration of certain popula

tion groups in the labour market, as well as qualification measures for employees embroiled in structural transformation. Increasing investments in qualifications and further training is also central to boosting private investments in the transformation. The lack of appropriately qualified workers has been estimated as a long-term obstacle to investment by 79 per cent of European companies (EIB 2024). With the European Pillar of Social Rights and the relevant action plan the EU has provided the Member States with clear quantitative targets with regard to further training and qualifications. It is imperative that the goal of having at least 60 per cent of adults each year engaged in training by 2030 be underpinned with the requisite financial resources, also on the European side.

Conversely, it is important to note that the EU Future Fund outlined here can only *supplement* other important budget items such as the Structural Funds (as well as the Common Agricultural Policy, the Social Climate Fund and environmental protection costs) but not replace them. While the structural funds also make an important contribution to funding the socio-ecological transformation the main goal of these funds is to reinforce social and economic territorial coherence in the EU and to support structurally weak regions in the ecological and digital transformation. Furthermore, the regional level plays a key role in the prioritisation and governance of support funding in the structural funds. This objective remains crucial also in the next funding period given the increasing socioeconomic disparities in the EU. The primary aim of the EU Future Fund, by contrast, would be to boost the decarbonisation and competitiveness of the Single Market (especially in global competition) and its economic resilience. Explicitly not covered, however, would be agriculture, which is already well covered in the EU budget, representing one of the largest items (just under a third). Because these funds are also supposed to safeguard other important policy goals, such as food security and regional production, in our view it would make most sense for them to continue to run (and be reformed) within the framework of this separate support and funding logic. Also required, as noted in Section 2, is (additional) money for EU environmental protection measures, among other things to tackle the biodiversity crisis, as well as nature-based measures for climate adaptation. They also make a key contribution to securing a sustainable European future and, in our view, must not be played off against additional needs in the areas outlined here.

Nevertheless, beyond the various European funding mechanisms, more coherence is imperative in pursuit of a coordinated transformation strategy. In the European transformation funding toolbox the structural funds should play as important a role as agricultural policy, the Social Climate Fund and a Future Fund for Europeanstrategic investments. However, there must be more coherence between funding instruments when it comes to procedures, purposes and reporting. Part and parcel of this is a politically defined overarching strategy that spells out which tasks can be performed by which EU instruments. Specifically, besides decarbonisation, we see the digital transformation, environmental protection and climate adaptation as key EU-wide challenges. Such a strategy ultimately also determines the financial structure of the various financing instruments. The negotiations on the next Multiannual Financial Framework, which are due to begin shortly, should provide more clarity here and an opportunity for a fundamental reorganisation with a more strategic focus and high added value for the Member States.

Based on existing studies we estimate the additional annual *public* investment needs in the four areas outlined to be at least 1 per cent of EU economic output. We thereby provide a fairly conservative estimate of the costs of transformation, based on the studies mentioned above and Figures 1 and 2. Using the figures of the Rousseau Institute we add together the sums required to meet the needs of the energy, transport and industry sectors, as well as for research, further training and carbon sinks, plus the additional investments required to bring forward reduction of emissions by 2030 in line with the Fit for 55 package (altogether around 1 per cent of EU GDP for 2022). A similar estimate can be achieved if, alternatively, the mean value is taken of the calculated additional investment requirements for decarbonisation of around 4 per cent of GDP per year (4.2 per cent by 2030; 3.8 per cent by 2050), on the assumption that at least a quarter of this must come from the public sector. This means that additional public investments of at least 1 per cent of EU economic output per year must be financed, roughly the same as the entire current seven-year EU budget. This estimate is similar to those presented in many current studies on the subject (see, for example, McKinsey 2020; Heimberger 2023; Darvas und Wolff 2021; Pisany-Ferry, Tagliapietra und Zachmann 2023).

The size of the EU Future Fund also depends on, how the Commission and the Member States apply the new EU fiscal rules in the next few years. If, contrary to expectations, the European Commission grants the Member States more scope for credit financing of public investments, support at the European level could be reduced. At least two paths are feasible here: the European Commission can recognise investment programmes in the Member States as measures for achieving the goals of the Green Deal and therefore (i) refrain from setting in motion an excessive deficit procedure (Article 2(3) of the Corrective Arm Regulation), or (ii) request a structural adjustment of less than 0.5 per cent of GDP for Member States in the excessive deficit procedure (recital 23 of the Corrective Arm Regulation). However, if the new EU fiscal rules are once again applied strictly next year, or turbulence on the government bond markets makes national borrowing more difficult the EU level will have to provide the Member States with more support. There are incentives for this in the new rules, at least during the next adjustment period. EU subsidies (as well as national co-financing of EU funded programmes) that are increased during the adaptation period (for example, because of stronger national drawdown of existing EU funds or a new EU investment programme), should not, according to the new fiscal rules, be added

subsequently to the net expenditure paths that have already been negotiated by the Member States (Darvas, Welslau and Zettelmeyer 2024).[2]

The higher the proportion of European level financing in the funding of strategic investments in the coming years the more important will be the effective and democratic coordination of Member States' economic and fiscal policies in the European Semester. Simply shifting sensible investment financing to the European level in order to create scope for 'unproductive expenditure' domestically (interest payments etc.) should be avoided, also on political grounds. The new toolbox of the Stability and Growth Pact, in which individually negotiated fiscal-structural plans for each Member State determine the net expenditure path, include a central link with the European Semester, which is intended to monitor the plans' implementation and design. Not least because of the exemptions outlined above, which are managed by the Commission, there are stronger incentives than before to shape national budgetary policy more in line with common EU priorities, which reduces the risk of moral hazard. There is more scope here for more democratic accountability, however, not least because of the greater effectiveness it entails: more involvement of the social partners and climate policy institutions in the formulation of national plans, for example, could help to foster greater ownership of budget policy priorities, even beyond the government (see Dawson 2023).

4.2 INSTRUMENTS AND DISBURSEMENT

The funding components of the EU Future Fund should encompass means of promoting both private investments and public investments in the traditional sense. It will be up to private actors to implement a large proportion of investments and in many areas they are able to do so more efficiently than the state administration. But public spending is often needed as an incentive for private investments to attain technological maturity and global competitiveness. In other areas, by contrast, public investments are indispensable, such as in the provision of infrastructure and complementary investments in research, qualification and further training, which the market is unable to provide adequately. In principle, the EU Future Fund should therefore have a high degree of flexibility and be able to provide different instruments of transformation financing, offering low-interest loans, tax credits and guarantees for companies, as well as direct public investment. Similar to the Recovery and Resilience Facility, resources from an EU Future Fund should be used for various funding instruments and leveraged and distributed via the financial markets in cooperation with the European Investment Bank and national investment banks.

Public equity investments can also be an important instrument for transformation financing in certain sectors, and an efficient one in terms of German and European fiscal rules. In the industrial and energy sectors public equity investments can reinforce companies' equity base and thus support investments. The main advantage of state capitalisation in contrast to subsidies is that it avoids the socialisation of costs and the privatisation of gains. Direct state participation in key industries has the further benefit of directly influencing the implementation of climate and sustainability goals and, for example, the promotion of active trade union involvement (see Dullien/Rietzler/Tober 2021). This form of financing has an additional advantage in the current situation: public equity investments in companies, as well as equity increases in public companies, development banks and so on are considered to be financial transactions for budgetary purposes and therefore do not fall under the EU deficit rules – and are also neutral according to the German debt brake – if they meet certain criteria. In the German debate, following the Federal Constitutional Court's ruling on the climate and transformation fund, greater recourse to financial transactions is therefore recommended as a way out (Kollatz and Horn 2024). It needs to be borne in mind, however, that the reformed EU fiscal rules set strict limits on the use of financial transactions because of the requirement of reducing the debt level in the medium term. A financing strategy based on an EU Future Fund could be of use here if the funds are paid out to Member States as grants and thus national debt levels remain unscathed.

Resources from an EU Future Fund could be made available to the Member States either as grants or loans. The benefit of making funds available to the Member States as grants is that this would leave debt levels intact. But the provision of loans – depending on capital market refinancing costs – could be an attractive alternative for some Member States, as experience with the Recovery and Resilience Facility shows. Credit in the amount of 80 billion euros has already been disbursed to the Member States (Recovery and Resilience Scoreboard 2024).

Also important are innovative forms of support, such as direct conditional payments of EU funds to companies. The US Inflation Reduction Act, for example, focuses on this type of direct aid and uses tax credits for companies. One advantage of this is that the outflow of funds is less dependent on government administrative capacities and thus may occur more quickly, as market participants make investment decisions directly and are subsequently compensated by the state via existing tax declaration processes. Tax deductions, as originally agreed in the German government's coalition agreement (so-called 'super deductions'), are designed in a similar way: instead of reducing the tax to be paid when certain investments are proven to have been made, the taxable profit is reduced by taking investment costs into account more quickly and therefore more directly.

2 Nevertheless, in the next negotiations on net expenditure paths after the first adjustment phase (after seven years, at the latest), co-financing for EU-financed programmes would be fully included in the (new) net expenditure paths, as they are part of the debt and deficit definitions. In addition, the quantitative requirements for debt and deficit reduction, as well as deficit resilience, especially for highly indebted countries, as set out in the preventive and corrective arm of the reformed Stability and Growth Pact (the so-called 'numerical safeguards'), apply to every calculation of the net expenditure paths.

This is not easily transferable to other Member States, however, as taxes remain a national competence. Having said that, it is worth looking at the extent to which European tax credits or deductions could be introduced on the existing legal basis using the Single Market competence (see Factsheet EU Parliament), at least for cross-border investments, which would then be implemented by the Member States via their national tax systems but reimbursed by the EU. National instruments for combating the inflation crisis via taxation or competition policy (Weber 2023; Kolesnichenko 2023; Jung and Hayes 2023) developed in recent years, which also contribute to promoting a fair transformation, could thus, under certain circumstances, be coordinated and counterfinanced at European level from the outset.

In the case of some EU funds, direct payments to companies are already possible and can serve as models. The EU Innovation Fund, for example, which among other things pursues the aim of promoting innovative technologies for carbon capture, utilisation and storage, for the generation of renewable energy and for the storage of energy, is aimed directly at companies. In addition, the Connecting Europe Facility, for example, awards direct project funding to companies in certain areas of energy and infrastructure.[3] The EU Future Fund could build on these examples, at least in part – ideally in conjunction with a less bureaucratic procedure without project applications, under which companies could instead make investment decisions and have part of the costs reimbursed directly by the EU afterwards, based on clear criteria (for example, in the form of a credit against national tax obligations, as with the US Inflation Reduction Act).

4.3 FINANCING AND LEGAL BASIS

In principle, three different sources are conceivable for financing the EU Future Fund, also in mixed form: Member State contributions, EU own resources and EU bonds. Because, on political and economic grounds, increasing Member State contributions is rather improbable – given that the pressure on national budgets will undoubtedly increase in the next few years and further growing expenditure items, such as defence, will be added –new EU own resources must urgently be pursued in a future-proof manner in the negotiations on the next Multiannual Financial Framework. Otherwise, there is a risk of massive cuts in the EU budget for the next funding period in the face of increasing investmentneeds.

The worry remains, however, that new EU own resources will first and foremost be used largely to repay existing credit costs for the Recovery Fund. To be sure, it's important to ensure reliable repayment of the NextGenerationEU recovery fund. From 2028 at the latest, the new interest rate environment will result in at least 20 billion euros in annual costs until 2058 (Lindner et al. 2024). According to the European Commission's proposal of June 2023, part of the annual revenue from the ETS2 system (currently approximately 7 billion euros, and from 2028 around 19 billion euros), from CBAM (approximately 1.5 billion euros) and a share of increased corporate taxes from the minimum tax (BEFIT) (approximately 16 billion euros) are earmarked for repayment. In the event of higher interest costs, the proportion of this revenue that becomes EU own resources could be increased accordingly. However, the proposals still have to be taken up by the Member States and adopted (via reform of the own resources decision, which requires unanimity and ratification).

Any new own resources for additional investments that go beyond this should be used to improve distributive justice in the EU and designed in such a way that they are not introduced at the expense of federal, state and municipal budgets. In light of this, the introduction of an EU-wide financial transaction tax would represent a useful new source of EU own resources. A one-off wealth levy, similar to the former wealth levy in Germany (the so-called "Lastenausgleichsabgabe") could also be a useful additional source of funding for the transformation. Other promising forms of own resources might lie in corporate taxation, for example in the taxation of economically counterproductive share buybacks. Another option would be systematic taxation of excess profits in the Single Market. In the wake of the Covid-19 pandemic the EU Member States were able to agree on a temporary excess profit tax on energy companies. An excess profit tax could be permanent or temporary as a supplement to corporation tax in order to support incomes during negative economic shocks (Hebous/Prihardini/Vernon 2022) and on its own could bring in an estimated 100 billion euros a year (Trautvetter 2024). It would have to be designed in such a way that it did not curtail companies' investment Another option would be levies on, for example, energy-intensive cryptocurrency or environmentally harmful biowaste (Schratzenstaller et al. 2022). Another idea would be a minimum climate solidarity surcharge ('*Klimasoli*') in order to tax particularly energy-intensive luxury consumption, such as private jets and yachts (Rehm, Huwe and Bohnenberger 2023).[4]

If equity investments were also financed via the EU Future Fund, the return on public equity investments could be used as a further source of income for repayment. In contrast to direct subsidies equity investments could be not just an instrument of disbursement but rather a useful component in the funding of an EU Future Fund. To

3 In contrast, the Important Projects of Common European Interest (IPCEIs), under which cross-border consortia can apply for project funding in areas such as the European hydrogen or battery industry, are financed from Member State budgets and organised by them together with the participating companies, requiring only approval by the EU Commission. They are therefore an example of national funding policy with at least partial European coordination under today's more flexible state aid framework.

4 A minimum wealth tax, on the other hand, which according to Kapeller et al (2023) could go a long way towards closing the investment gaps, would, under the German Constitution (Basic Law), be the responsibility of the federal states. From a trade union perspective (EGB 2023) a European initiative to coordinate minimum rates of wealth taxation would be advisable, although the Member States should decide how the funds are used.

that end the Macroeconomic Policy Institute (IMK) has worked out a specific model for Germany, which could be used as a basis. Specifically, the fund could acquire capital shares in, for example, major investments in renewable energies or important transnational energy or transport infrastructure projects, with the aim of having the profits generated later flow back to them. It would make sense to use these medium-term revenues in the European context in particular to finance interest repayments in order to meet the legal obligations of budget neutrality in the EU.

Given the sheer size of the investments required and the limited means available through other channels a common EU bond issuance should, in our view, be a key financing component. This would also make macroeconomic sense. A largely bond-financed EU investment programme is macroeconomically suitable for investments that, in the medium term, improve the potential output of European economies and, in the long term, strengthen their resilience against foreseeable shocks. Bond-financing of growth and resilience enhancing investments is the only way to ensure the sustainability of public finances and their dependence both on productivity growth and global competitiveness in the future, and on averting of future costs arising from climate shocks. In any case, a failure to invest would be much more costly. On the one hand, location factors would deteriorate as a result of this and thus the attractiveness of a location for value creation purposes, and on the other, future costs would increase, arising, for example, from extreme weather events (see Section 2 or also Pisany-Ferry 2021; Thie et al. 2022). There is a range of macroeconomic research on the Recovery and Resilience Facility and NextGenEU that shows positive effects on economic growth, the sustainability of public finances and inflation (see Watzka und Watt 2020, Bańkowski et al. 2022; European Commission 2024).

At the same time, a new EU bond issuance must be done on a solid legal footing – and satisfy requirements arising from both EU primary law and those formulated by the Federal Constitutional Court in various judgments. Initial legal assessments of the EU law options regarding a bond-financed EU fiscal capacity are already available (see Abraham et al. 2023; Allemand et al. 2023; Grund and Steinbach 2023). A new legal study commissioned by the DGB – focusing particularly on the question of a new EU Future Fund – is now being prepared and will be available shortly (Grund and Steinbach, forthcoming). It is clear that, according to current legal opinion, neither the no-bailout clause in Art. 125 TFEU nor the fundamental principle of budget neutrality or a balanced budget enshrined in Art. 310 TFEU stand in the way of a bond-financed fund scheme. The no-bailout clause is relevant primarily in the case of a liquidity and solvency crisis immediately and urgently afflicting a state. It is less significant in instances involving the achievement of common European priorities, such as the Green Deal (see Grund and Steinbach 2023). The principle of budget neutrality, according to Grund and Steinbach (2023), should above all prevent Member States from falling into payment arrears with the EU. Art. 310 TFEU therefore does not represent an obstacle in principle for a new bond-financed investment programme. The Council Legal Service, too, considers that with regard to the NGEU the basic principle of budget neutrality is upheld because the EU's liabilities are offset by receivables from the Member States, as set out in the Own Resources Decision. The Own Resources Decision contains an 'irrevocable, definitive and enforceable guarantee of payment that is given upfront by the Member States' (Council of the European Union 2020).

Under current EU primary law at least two different models are possible: (i) a bond-financed special fund along the lines of Next Generation EU, and (ii) bond-financing a part of the regular revenues of the EU budget. The EU treaties provide a legal basis for both options: Article 122 TFEU, the so-called 'solidarity clause', could again come into consideration for a temporary special fund. Under it, financial aid to the Member States is permitted in the event of natural disasters or exceptional occurrences or in the event of supply emergencies, particularly with regard to energy. There is now a legal and scientific consensus that the existential threat posed by climate change for large parts of the global population is at least as significant and direct a challenge within the EU as the Covid-19 pandemic. In the EU this consensus has found expression in, for example, the European Climate Act (Abraham et al. 2023). Another option would be to use Art. 175TFEU as a legal basis for financing. This article deals with financial resources required for the coordination of economic policy and explicitly authorises the European Parliament and the Council to take 'specific actions' outside the existing funds. On this basis it is possible to engage in permanent bond financing for part of the Multiannual Financial Framework. The bond-financed part would thus be, within the framework of Art. 311, a new category of own resources rather than 'other revenue' (see Grund and Steinbach 2023). In any case, a new reform of the Own Resources Decision would be necessary, which would require Council unanimity and Member State ratification.

The main difference between the two models is that under the second variant the amount of the EU bond issue could be much bigger as a proportion of the remainder of the EU budget. In the case of the NextGenerationEU model the total amount of all EU bonds must be less than the remainder of the budget minus the liabilities of the NextGenerationEU itself – in other words, less than 0.25 per cent of EU GDP over seven years, measured against the current budget. This limit stemming from Art. 311 of the EU Treaty does not hold under the second possible legal basis. The 'other revenue' option has already been tried, however. The route via regular own resources would be a novelty and is legally not without controversy. The maximum amount of a possible EU bond issuance on this basis would also not be fully unrestricted: in such a case EU law would require sufficient (non-bond-financed) own resources in order to be able to service interest payments and repayment of the principal each year. For this purpose the two other sources of EU financing are possible: genuine EU own resources (see above) and higher Member State contributions

(which were also used as guarantees for the issue of NGEU bonds). In addition, it would remain the case that the maximum total amount of the bond issue would have to be specified from the outset in a reformed own resources decision. Another disadvantage of the NGEU model is that the establishment of a special fund would create another executive budget instrument between the EU Commission and Member State governments, which would largely exclude both national parliaments and the European Parliament.[5] The advantage of the construction as part of the EU budget, by contrast, would be that the European Parliament as directly elected European legislator would have a key role in the management and control of financial resources (as would the European Court of Auditors). Furthermore, the extent to which a refinancing of EU bonds (rollover) could be achieved in this model should be examined in more detail. If Grund and Steinbach's (2023) cautious initial legal assessment is confirmed, this would have further positive consequences for loan costs and private capital markets and thus ultimately for realisable investment sums.

In addition to EU law, the German Constitutional Court should also be taken into account. It sets further guidelines that would probably affect the design of an EU Future Fund. Although in principle, of course, the Federal Constitutional Court is not the ultimate arbiter of the legality of European policies, but rather the European Court of Justice, nevertheless Karlsruhe plays a key political role. It does not always see itself as subordinate to the CJEU in terms of jurisdiction and remains of central importance by reviewing the transfer of further competences to Brussels (including ratification of, for example, a reformed Own Resources Decision, as would in any case be necessary for an EU Future Fund). The latest judgment issued by the Federal Constitutional Court on the Climate and Transformation Fund in 2023 does not erect any insurmountable hurdles here. It is exclusively related to German budget management and does not expressly go into whether and to what extent the climate crisis is beyond 'the control of the state'. The Court does agree, however, that the consequences of long foreseeable crises should not be financed with emergency loans. With regard to the climate crisis it can at least be said that it is beyond the control of a single state (as the Federal Constitutional Court also recognised in its climate ruling) and that at least the severe consequences of climate change were not fully foreseeable. In our view, it has not been conclusively clarified to what extent this view of the court could have consequences for the use of Art. 122 as the legal basis for a new bond-financed EU investment programme. As things stand, we see this as another possible downside of replicating the NGEU model. The Federal Constitutional Court's so-called 'St Nicholas judgment' of 2022 remains the most restrictive, but the conditions laid down in it can also be taken into account legally. According to the ruling, the central prerequisites for an EU bond issue are the determination of an exceptional situation, primary legal cover, the earmarking of the expenditure and its limitation in terms of duration and amount. The Bundestag's overall budgetary responsibility and the fact that the scope of the liabilities must be set out in advance can also be taken into account by structuring the responsibility for repayment of EU bonds pro rata (instead of as a pan-European liability), as was also the case with the NextGenerationEU scheme (see Grund and Steinbach 2023).

The European Central Bank should also do everything possible to keep the interest costs of the EU Future Fund as low as possible and to promote its bonds as a secure basis for the EU capital market. ECB support for the Fund's objectives would be helpful and perfectly legal based on the ECB's secondary mandate, which requires it to support the EU's general economic policy objectives, and on the EU Future Fund's explicit objective of reducing energy prices. In practical terms, it would make sense to integrate the issued EU bonds in the Eurosystem's collateral framework; in other words, these securities should be accepted as collateral for further credit transactions that the ECB Executive Board might enter into. This would underwrite demand for them by hedging private financial transactions and reduce the financing costs of the EU Future Fund without the ECB having to actively buy the EU bonds itself (for the history of the ECB's collateral framework and the macroeconomic impact of its changes, see Schuster & Sigl-Glöckner 2023). On top of that, an EU bond issue for a Future Fund would fill the lack of a standardised secure bond, a central void in the euro area, without which the European capital market cannot properly develop. This would be all the more important if an EU bond were exempt from the legal prohibition on refinancing that applies within the framework of NextGenEU, thereby providing a permanent basis for standardised European financial markets, as government bonds do in the United States or Japan, for example. Use of such a bond to strengthen the European financial market and enhance its stability would also give the ECB justification to protect the interest costs of this EU bond from speculation through (at least announced) bond purchase programmes. Such ECB support for European economic policy could also be promoted by an interinstitutional agreement with the European Parliament, within which the Parliament could push ahead with firming up the secondary mandate in this direction, as it is explicitly permitted to do.

4.4 GOVERNANCE

A targeted, more efficient and more transparent flow of resources is key to the success of an EU Future Fund. To that end, the right lessons need to be learned from the implementation of the Recovery and Resilience Facility. In the model of the Recovery and Resilience Facility the disbursement of funds was made dependent on whether the Member States that had implemented reforms

5 Although the European Parliament was closely involved in determining the content of the current special fund – the Next Generation EU recovery programme – the Parliament's say in its implementation (as in the European Semester with regard to macroeconomic coordination as a whole) is minimal compared with the EU Commission and the governments, and is essentially limited to notifications, consultations and non-binding resolutions (Vanhercke and Verdun 2021; EGOV 2022; Bokhorst and Corti 2023).

and measures (so-called milestones and targets) agreed in advance with the European Commission. The Commission talks of a performance-based approach in this connection. In contrast to other EU funds the Member States receive EU funds only when they deliver on the agreed milestones and targets. While the clear earmarking of EU funds is no doubt important and must continue to apply to the development of new funds going forward the Commission's so-called performance-based approach, in our view, has a number of problems in its existing form that need to be taken into account and addressed in future EU investment policy:

(a) **The political process for defining reform plans and measures in the national recovery and resilience plans is opaque and undemocratic.** The European Commission negotiates reform plans with the Member States, which are defined in the European Semester. But neither national parliaments nor the European Parliament are involved in working out country-specific recommendations. The lack of democratic controls means that the Commission has too much discretion in drafting the country-specific recommendations.

(b) **Many Member States also complained of the disproportionate bureaucratic burden of preparing and monitoring national recovery and resilience plans** (European Commission 2024). The milestones and targets worked out with the European Commission in advance can only be changed subsequently in a complex bureaucratic procedure. Many Member States lack the administrative capacities to satisfy the demands of the European Commission. In some Member States – especially Germany – this has led to comparatively slow disbursement of funds (Alcidi, Gros and Corti 2020). In order to speed up disbursement a reversal of the burden of proof would make sense, at least for part of EU funds, for example, the Member States would first receive the money and pay it out quickly, and then only subsequently have to prove that it was used for its intended purpose (as was the case with Covid-19 assistance at national level).

(c) **The outflow of funds and its control would work better if the EU provides technical assistance and makes financial resources available for the purpose** (European Commission 2024). The structural funds, for example, provide resources for making technical assistance available for the administration of the programme. Here, the funds for technical assistance were also used by civil society to participate effectively in the funds' monitoring committees and to play an effective role in setting programme priorities, monitoring and controlling the outflow of funds.

(d) **A transparent, complete and easily accessible documentation of the outflow of funds** is a fundamental condition of the effective monitoring of the use of funds by civil society, the European Anti-Fraud Office (commonly known as OLAF) and institutions such as the European Parliament. In the case of the Recovery and Resilience Facility monitoring of fund outflows is hindered by the complex methods of disbursement. The Member States rarely disclose the ultimate recipients specifically and the funding guidelines are not transparent and not always accessible to civil society (Open Procurement EU 2021).

Drawing down public funds from the EU Future Fund should also be linked mandatorily to collective bargaining agreement coverage, as well as to location and employment guarantees. In this way transformation financing would be consistently oriented towards creating and preserving decent jobs. We need broad societal acceptance of the green transformation. Making the allocation of funding conditional on social criteria can make a substantial contribution to that. Furthermore, it is particularly important that public funds are used responsibly and with a view to maximising the public good. At the same time, jobs covered by collective agreements and codetermination help to ensure that broad swathes of the population participate in economic development and help to shape change. Decent jobs contribute to a socially just transformation and play their part in counteracting social 'fear of falling'. Individual measures funded from the Recovery and Resilience Facility (such as climate protection agreements) already provide for such social conditionalities. This represents a good basis for the requisite regulations. A legal opinion commissioned by the DGB makes it clear that public grants from the federal government may be linked to social conditions, such as adherence to collective agreements, job retention and location guarantees. This practice is not in conflict with national or European law (DGB 2024).

Systematic and institutionalised social partner involvement in fund administration is key to ensuring that the funding programmes have a reliable social purpose. The European structural funds provide a blueprint for this, as the social partners and civil society organisations are formally involved in fund administration in accordance with the umbrella regulation that governs the structural funds' common provisions. This is due in particular to the fact that the partnership principle is enshrined in law. A process has been built up over decades – through social partner consultations, partnership agreements, monitoring committees, and so on – in which trade unions and employer representatives discuss and shape the funds' priorities and the use of resources on an equal footing with government authorities at various levels. In other words, it is possible to build on existing processes and institutions without creating new bureaucratic hurdles.

5

CONCLUSION: HOW CAN WE ACHIEVE AN EU FUTURE FUND?

An EU Future Fund offers not only a solution to pressing economic, ecological and political challenges. It can also win majority support in Germany and Europe if political actors focus on how it would tackle these important and as of yet unresolved issues. As a recent FES tax policy survey underlined, fiscal policy is never an end in itself for citizens and can only be justified as an instrument for solving important problems, especially in the German context (Storks et al. 2023). On this basis an EU Future Fund addresses challenges capable of garnering majority support:

- The Single Market, in which an EU Future Fund would primarily invest, enjoys substantial majority support and there are already vigorous demands for more investments in it, especially from industry, including companies, and not least in the current geoeconomic context (EIB 2023; BDI 2023; ERT 2023, Antwerp Declaration 2024).

- Support for a more socially just transformation is also overwhelming: large majorities in Germany and Europe are worried about the rapid advance of the climate crisis and are calling for green investments for the transformation. They are also worried about being left behind in a transformation that fails to take sufficient account of social considerations and reject any attempts to get them to shoulder a burden beyond their means (More in Common 2021; Umweltbundesamt 2022; YouGov 2023; Eurobarometer 2023; FES 2024; Abou-Chadi et al. 2024).

- Concerns about the rise of right-wing populism and right-wing extremism and their attacks on the foundations of democracy are also shared, almost unanimously, by all other population groups (Koch et al. 2021; Wegscheider et al. 2023).

The investments needed to meet these urgent challenges should therefore be constantly brought to the fore in order to promote an EU Future Fund and compel opponents to present other solutions.

From a scientific standpoint, even the financing side does not (any longer) pose an insurmountable political risk. According to a recent study, major industrial policy investments would be popular in Germany, Poland and France if accompanied by social conditionalities and financed by borrowing rather than taxes (Abou-Chadi et al. 2024). Survey research in the EU in recent years has also shown that, for example, the in terms of fiscal policy historic Next Generation EU recovery fund has won majority support in France, Germany, Italy, the Netherlands and Spain despite general opposition to EU borrowing and grants rather than loans in all countries (Bremer et al. 2023). A *permanent* fund for combating economic crises along the lines of the NextGenEU model met with even more approval than the temporary model opted for by policymakers. It also shows that party rhetoric has a clear impact on voter approval, for example for joint borrowing ('Eurobonds'): positive reinforcement from the party they support strengthens approval, while rejection by political opponents does not change their minds (Meijers et al. 2022). Suggestions that, if joint debt was not taken on to combat the Covid-19 pandemic there was a risk that a crisis-ridden eurozone might break up because of an 'Italexit' also significantly strengthened support for fiscal integration in Germany. Reinforcing this dynamic, support in Italy for remaining in the euro also fell sharply when austerity and structural reforms were mentioned to citizens there as a condition (Baccaro et al 2023). Progressive parties therefore have considerable scope to generate majority support even for fiscal policy integration, which remains controversial. Campaigning even for joint borrowing does not threaten to undermine support among their voters.

At national level an EU Future Fund makes possible a broad societal alliance that could wield political clout. Consensus on this issue is comparatively strong between trade unions, the climate movement, employers, particularly in industry, the energy and digital economy (Stiftung KlimaWirtschaft 2024; Antwerp Declaration 2024), as well as experts and think tanks, ranging from the IMK to economic and European policy institutes and the German Economic Institute. Depending on its substance, the security policy and geostrategic perspective might enable further alliances, including in conservative circles. In our view, it is important to strengthen these alliances in Germany, but also in other EU countries, and to secure partners for a progressive financial policy that is capable of winning majority support in the coming years.

The political window of opportunity for establishing an EU Future Fund will probably focus on 2026, although the debate will start in autumn 2024. Currently, the EU is in political transition: after the reform of fiscal

rules and the end of the current European legislature this summer, the European Parliamentary elections will set the course for the next term of office until 2029. The Council has already set out the initial priorities for the next Commission, whose input will be used to set the new reform agenda in autumn 2024. Among other things, negotiations will then get rapidly under way on the next Multiannual Financial Framework from 2028. In the case of the last EU budget, the first Commission proposal was submitted just under two and a half years before its final adoption, which would mean mid-2025. As far as the Member States are concerned, elections will be held in Germany in September 2025, and in France (and Italy) in 2027. If, as we expect, the German government is not prepared to launch a large-scale new investment campaign in the EU by then, even though it was included in the coalition agreement, 2026 would in all likelihood provide a window of opportunity for reaching agreement in the Council. In our view, a discussion on an EU Future Fund would take place from 2027 onwards in a combination of the MFF budget negotiations and a separate reform process on the future of the STEP instrument and a successor instrument for the reconstruction fund. The discussion about new EU own resources, which was promised in an interinstitutional agreement from December 2020 in order to prevent possible real budget cuts due to the repayment obligations and interest costs of the recovery fund, is also based on this.

In any case, in the new legislative period actors at national level, in the Council and in the European Parliament need to advance these parallel reform processes towards an EU Future Fund. Fortunately, there are already a number of powerful partners: both the Commission and the current European Parliament have spoken out in favour of setting up a European sovereignty fund, even though this ultimately failed in the Council last year due to other priorities. Important international institutions such as the IMF (2022) or – in particular detail – the ECB (2023) have also advocated investment-boosting funds in the context of the transformation and could support and advise on corresponding political efforts. In our view, the present background paper and the underlying network, as well as existing alliances such as Fiscal Matters at EU level, provide a robust basis for these upcoming processes, on which political efforts can continue in the coming years towards bringing an EU Future Fund into existence.

BIBLIOGRAPHY

Abou-Chadi, T., Jansen, J., Kollberg, M. and Redker, N. (2024): Debunking the backlash – uncovering European voters' climate preferences. Hertie School Jacques Delors Centre, 7 March; available at: https://www.delorscentre.eu/fileadmin/2_Research/1_About_our_research/2_Research_centres/6_Jacques_Delors_Centre/Publications/20240307_Debunking_the_Backlash_Abou-Chadi_Janssen_Kollberg_Redeker.pdf

Abraham, L., O'Connell, M. and Oleaga, I.A. (2023): The legal and institutional feasibility of an EU Climate and Energy Security Fund. European Central Bank Occasional Paper Series (March); available at: https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op313~96012901a8.en.pdf

Agora Energiewende (2023): *EU climate funding tracker* (20 June); available at: https://www.agora-energiewende.org/data-tools/eu-climate-funding-tracker

Alcidi, C., Corti, F. and Gros, D. (2022): A golden rule for social investments: how to do it, in: *Intereconomics: Review of European Economic Policy 57*(1), 26–32; available at: https://www.intereconomics.eu/contents/year/2022/number/1/article/a-golden-rule-for-social-investments-how-to-do-it.html

Alcidi, C., Gros, D. and Corti, F. (2020): Who will really benefit from the next generation EU funds? CEPS (October); available at: https://cdn.ceps.eu/wp-content/uploads/2020/10/PI2020-25_Next-Generation-EU_funds.pdf

Allemand, F., Creel, J., Leron, N., Levasseur, S. and Saraceno, F. (2023): Making Next Generation EU a permanent tool. FEPS, FES, IEV (March). https://feps-europe.eu/wp-content/uploads/2023/03/Making-Next-Generation-EU-a-permanent-tool.pdf

Antwerp Declaration for a European Industrial Deal (2024): https://antwerp-declaration.eu/

Apap, J. and Harju, S.J. (2023): The concept of 'climate refugee' – towards a possible definition. European Parliamentary Research Service, 1–12 (October); available at: https://www.europarl.europa.eu/RegData/etudes/BRIE/2021/698753/EPRS_BRI(2021)698753_EN.pdf

D'Aprile, P., Engel, H., Helmcke, S., Hieronimus, S., Nauclér, T., Pinner, D., van Gendt, G., Walter, D. and Witteveen, M. (2020): *How the European Union could achieve net-zero emissions at net-zero costs*. McKinsey and Company (3 December); available at: https://www.mckinsey.de/capabilities/sustainability/our-insights/how-the-european-union-could-achieve-net-zero-emissions-at-net-zero-cost#/

Arnold, N.G. et al. (2022): Reforming the EU fiscal framework: strengthening the fiscal rules and institutions. International Monetary Fund (5 September); available at: https://www.imf.org/en/Publications/Departmental-Papers-Policy-Papers/Issues/2022/08/31/Reforming-the-EU-Fiscal-Framework-Strengthening-the-Fiscal-Rules-and-Institutions-The-EUs-518388

Baccaro, L., Bremer, B. and Neimanns, E. (2023): Strategic interdependence and preferences for debt mutualization in the eurozone, in: *Review of International Political Economy*, 30(4), 1459–1485; available at: https://doi.org/10.1080/09692290.2022.2107043

Baccini. L. and Sattler, T. (2023): Austerity, economic vulnerability, and populism, in: *American Journal of Political Science* (June); available at: https://www.researchgate.net/publication/371590206_Austerity_Economic_Vulnerability_and_Populism

BDI (2023): *30 Jahre Binnenmarkt: Europas unvollendete Erfolgsgeschichte*. 16 March; available at: https://bdi.eu/artikel/news/30-jahre-eu-binnenmarkt-europas-unvollendete-erfolgsgeschichte

Bańkowski, K. et al. (2022): The economic impact of New Generation EU: a euro area perspective. European Central Bank Occasional Paper Series (April); available at: https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op291~18b5f6e6a4.en.pdf?1a658c477acd4fc45579f09cd6b9b95c

Bergmann, K., Diermeier, M. and Kempermann, H. (2023): AfD in von Transformation betroffenen Industrieregionen am stärksten. *IW-Kurzbericht* 71/2023 (26 September); available at: https://www.iwkoeln.de/fileadmin/user_upload/Studien/Kurzberichte/PDF/2023/IW-Kurzbericht_2023-AfD-Transformation.pdf

Bilal, A. and Känzig, D.R. (2024): The Macroeconomic Impact of Climate Change: Global vs. Local Temperature. NBER Working Papers, 32450; available at: http://www.nber.org/papers/w32450

Bistline, J., Mehrotra, N. and Wolfram, C. (2023, May): Economic implications of the climate provisions of the Inflation Reduction Act. NBER Working Paper Series, 1–75; available at: https://www.nber.org/system/files/working_papers/w31267/w31267.pdf

Bokhorst, D. and Corti, F. (2023): Governing Europe's recovery and resilience facility: between discipline and discretion, in: *Government and Opposition*, 1–17 (26 March); available at: https://www.cambridge.org/core/services/aop-cambridge-core/content/view/9A8DD6FA42CE44B-44F4BD956B8EB0887/S0017257X23000143a.pdf/governing_europes_recovery_and_resilience_facility_between_discipline_and_discretion.pdf

Bremer, B., Kuhn, T., Meijers, M.J. and Nicoli, F. (2023): In this together? Support for European fiscal integration in the Covid-19 crisis, in: *Journal of European Public Policy* (13 June); available at: https://www.tandfonline.com/doi/pdf/10.1080/13501763.2023.2220357

Brooks, R. [@robin_j_brooks] (2023): Economic activity is outperforming in Mexico [Tweet]. X (17 July); available at: https://x.com/robin_j_brooks/status/1680916297813508097

Bundesverfassungsgericht (2023): Urteil des Zweiten Senats vom 15. November 2023, 2 BvF 1/22, Rn. 1–231; available at: https://www.bverfg.de/e/fs20231115_2bvf000122.html

Busch, R. and Harder, K. (2024): Verwendung der Finanzmittel aus dem EU-Emissionshandel und Klima-Sozialfonds durch die Mitgliedstaaten der EU, in: *Würzburger Studien zum Umweltenergierecht* 33, 1–44 (17 January); available at: https://stiftung-umweltenergierecht.de/wp-content/uploads/2024/01/Stiftung_Umweltenergierecht_WueStudien_33_Europaeische_CO2-Bepreisung_und_Klimageld.pdf

Buti, M., Coloccia, A. and Messori, M. (2023): *European public goods*. CEPR (9 June); available at: https://cepr.org/voxeu/columns/european-public-goods

Calipel, C., Bizien, A. and Pellerin-Carlin, T. (2024): *European climate investment deficit report: an investment pathway for Europe's future*. Institute for Climate Economics (21 February); available at: https://www.i4ce.org/en/publication/european-climate-investment-deficit-report-investment-pathway-europe-future/

Cannas, G., Ferraro, S., Mathieu Collin, A. and Van de Casteele, K. (2022): Competition – state aid brief No 3/2022 (October). European Commission; available at: https://competition-policy.ec.europa.eu/system/files/2022-11/state_aid_brief_3_2022_kdam22003enn_coronavirus.pdf

Chazan, G. (2024): *German far-right leader hails Brexit as "model for Germany"*, in: *Financial Times* (22 January); available at: https://www-ft-com.ezproxy.depaul.edu/content/5050571e-79f9-4cb7-991c-093702ec8833

Clean Investment Monitor (2024): https://www.cleaninvestment monitor.org/

Climate Action Tracker. (2023): EU; available at: https://climateaction-tracker.org/countries/eu/

Council of the European Union (2020): *Vorschläge zu „Next Generation EU"* (24 June); available at: https://data.consilium.europa.eu/doc/document/ST-9062-2020-INIT/de/pdf

Creel, J., Holzner, M., Saraceno, F., Watt, A. and Wittwer, J. (2020): How to spend it: a proposal for a European Covid-19 recovery programme, in: *The Vienna Institute for International Economic Studies* (June); available at: https://wiiw.ac.at/how-to-spend-it-a-proposal-for-a-european-covid-19-recovery-programme-p-5352.html

Dafermos, Y., Gabor, D., Nikolaidi, M., Pawloff, A. and van Lerven, F. (2021): Greening the eurosystem collateral framework. New Economics Foundation (March); available at: https://greenpeace.at/assets/uploads/pdf/Greening-the-Eurosystem-collateral-framework-Report.pdf

Darvas, Z. and Wolff, G.B. (2021): A green fiscal pact: climate investment in times of budget consolidation. Bruegel (9 September); available at: https://www.bruegel.org/policy-brief/green-fiscal-pact-climate-investment-times-budget-consolidation

Darvas, Z., Welslau, L. and Zettelmeyer, J. (2024): The new European Union fiscal rules: Changes and implications. Bruegel Policy Brief; available at: https://www.bruegel.org/publications/policy-briefs

Dawson, M. (2023): How to democratize Europe's fiscal rules. Friedrich-Ebert-Stiftung (September); available at: https://library.fes.de/pdf-files/international/20555.pdf

De Lorenzo, D. (2024): EU approves $986 million German state aid for Northvolt's battery plant, matching US subsidies. Forbes (8 January); available at: https://www.forbes.com/sites/danieladelorenzo/2024/01/08/eu-approves-986-million-german-state-aid-for-northvolts-battery-plant-matching-us-subsidies/

Demertzis, M., Pinkus, D. and Ruer, N. (2024): Accelerating strategic investment in the European Union beyond 2026. *Bruegel*, 1–51 (24 January); available at: https://www.bruegel.org/sites/default/files/2024-01/Report%2001%202024.pdf

DGB (2024): Rechtliche Zulässigkeit einer Verknüpfung staatlicher Zuwendungen mit sozialen Vorgaben. Kurzbewertung. Juristisches Gutachten erstellt von Becker Büttner Held Rechtsanwälte Wirtschaftsprüfer Steuerberater PartGmbB im Auftrag des Deutschen Gewerkschaftsbundes; available at: https://www.dgb.de/fileadmin/download_center/Positionen_und_Thesen/DGB_Kurzgutachten_soziale_Konditionierung.pdf

Dias, C. (2022): European Parliament involvement in scrutinising the recovery and resilience facility. European Parliament Briefing Economic Governance Support Unit (October); available at: https://www.europarl.europa.eu/RegData/etudes/BRIE/2021/659627/IPOL_BRI(2021)659627_EN.pdf

Di Carlo, D., Hassel, A. and Höpner, M. (2023): Germany's coordinated policy response to the energy crisis: shielding the export-led model at all costs. LUISS Institute for European Analysis and Policy, Working Paper Series 1/2023, 1–18 (20 November); available at: https://pure.mpg.de/rest/items/item_3552510_1/component/file_3552511/content

Dullien, S., Rietzler, K. and Jung, R. (2024): 600 Milliarden Euro staatliche Extra-Investitionen über 10 Jahre können öffentliche Infrastruktur und Wirtschaft zukunftsfähig machen. Hans-Böckler-Stiftung (14 May); available at: https://www.boeckler.de/de/pressemitteilungen-2675-600-milliarden-euro-staatliche-extra-investitionen-60422.htm

Dullien, S., Rietzler, K. and Tobler, S. (2021): Ein Transformationsfonds für Deutschland. Institut für Makroökonomie und Konjunkturforschung (January); available at: https://www.imk-boeckler.de/de/faust-detail.htm?sync_id=HBS-007936

Ehni, E. (2023): AfD erreicht neuen Bestwert. *Tagesschau* (6 July); available at: https://www.tagesschau.de/inland/deutschlandtrend/deutschlandtrend-3372.html

ERT (2023): *Securing Europe's place in a new world order.* ERT Vision Paper 2024–2029 (26 October); available at: https://ert.eu/wp-content/uploads/2023/10/ERT-Vision-Paper-2024-2029-Full-version-2.pdf

ETUC (2023): *Taxing the wealth for tackling social inequalities and climate change.* 6 December; available at: https://www.etuc.org/en/document/adopted-resolution-taxing-wealth-tackling-social-inequalities-and-climate-change

European Central Bank
- (2024): *Supporting the green transition*; available at: https://www.ecb.europa.eu/ecb/climate/green_transition/html/index.en.html

European Commission
- (2022): Überprüfung der Umsetzung der Umweltpolitik 2022: Trendwende durch Einhaltung der Umweltvorschriften. Mitteilung der Kommission an das Europäische Parlament, den Rat, den Europäischen Wirtschafts- und Sozialausschuss und den Ausschuss der Regionen (8 September); available at: https://eur-lex.europa.eu/resource.html?uri=cellar:784da925-2f5e-11ed-975d-01aa75ed71a1.0003.02/DOC_1&format=PDF
- (n. d.): *2050 long-term strategy.* Available at: https://climate.ec.europa.eu/eu-action/climate-strategies-targets/2050-long-term-strategy_en
- (n. d.): *About the connecting Europe facility.* Available at: https://cinea.ec.europa.eu/programmes/connecting-europe-facility/about-connecting-europe-facility_en
- (2022): *Commission staff working document evaluation EFSI 2.0 ex-post Evaluation* (16 Dezember); available at: https://commission.europa.eu/document/download/605fc242-b03f-4288-a595-edd7c6b72a66_en?filename=SWD_2022_EFSI%202.0%20evaluation_Report.pdf
- (2023): Special Eurobarometer 538 – Climate Change. Available at: https://climate.ec.europa.eu/system/files/2023-07/citizen_support_report_2023_en.pdf
- (2023): *2023 Strategic Foresight Report.* Available at: https://commission.europa.eu/strategy-and-policy/strategic-planning/strategic-foresight/2023-strategic-foresight-report_en
- (2023): *EU budget: Commission puts forward an adjusted package for the next generation of own resources* (20 June); available at: https://ec.europa.eu/commission/presscorner/detail/en/ip_23_3328
- (2023): *Europe's digital decade: digital targets for 2030.* Available at: https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/europe-fit-digital-age/europes-digital-decade-digital-targets-2030_en
- (2024): *Case study on the functioning of the RRF and other EU funds.* Available at: https://commission.europa.eu/document/download/c203ce47-c5d4-4fa1-abfc-50343d9ddcb6_en?filename=case-study-on-the-functioning-of-the-rrf-and-other-eu-funds.pdf
- (2024): *Disbursements.* Available at: https://ec.europa.eu/economy_finance/recovery-and-resilience-scoreboard/disbursements.html?lang=en#
- (2024): *Mid-term evaluation of the recovery and resilience facility (RRF).* Available at: https://commission.europa.eu/about-european-commission/departments-and-executive-agencies/economic-and-financial-affairs/evaluation-reports-economic-and-financial-affairs-policies-and-spending-activities/mid-term-evaluation-recovery-and-resilience-facility-rrf_en

European Environment Agency (2023): European Climate Risk Assessment (7 November). Available at: https://www.eea.europa.eu/publications/european-climate-risk-assessment

European Investment Bank
- (2023): *EIB Investment Report 2022/2023 – Resilience and Renewal in Europe.* 28 February. Available at: https://www.eib.org/en/publications/20220211-investment-report-2022
- (2024): *EIB Investment Report 2023/2024 – Transforming for competitiveness.* 7 February. Available at: https://www.eib.org/en/publications/20230323-investment-report-2023?pk_vid=171509076984b305
- (2024): Recovery and resilience facility and financial instruments. Available at: https://www.eib.org/en/products/mandates-partnerships/rrf/index

European Parliament (2023): *Allgemeine Steuerpolitik* (October); available at: https://www.europarl.europa.eu/factsheets/de/sheet/92/allgemeine-steuerpolitik

Eurostat (2024): *Gross domestic product at market prices.* 24 May. Available at: https://ec.europa.eu/eurostat/databrowser/view/tec00001/default/table?lang=en

Ferraro, S., Cannas, G. and Van de Casteele, K. (2024): Competition – state aid brief No 1/2024 (February), European Commission; available at: https://competition-policy.ec.europa.eu/document/download/22938d94-beaa-44bf-97ca-8a1785ca1a1c_en?filename=state_aid_brief_1_2024_kdam24001enn_ukraine.pdf

Fiscal Matters (2024): Fiscal Matters EU. Available at: https://www.fiscalmatters.eu/

Forchtner, B. (2019): Climate change and the far right, in: *Wires Climate Change* (10)5 (15 August); available at: https://wires.onlinelibrary.wiley.com/doi/10.1002/wcc.604

Gagné. J. and Krause, L.K. (2021): Einend oder spaltend? Klimaschutz und gesellschaftlicher Zusammenhalt in Deutschland. More in Common Deutschland. Available at: https://www.moreincommon.de/media/leapg0va/more_in_common_studie_klima_zusammenhalt.pdf

Giebler, H. (2024): Erwartungen der Bürgerinnen und Bürger an Europa. Friedrich-Ebert-Stiftung, 1–37. Available at: https://library.fes.de/pdf-files/international/21055.pdf

Gold, R. (2021): Wie kann Wirtschaftspolitik zur Eindämmung des Populismus beitragen?, in: *Wirtschaftsdienst* 101 (7), 500–504; available at: https://www.wirtschaftsdienst.eu/inhalt/jahr/2021/heft/7/beitrag/wie-kann-wirtschaftspolitik-zur-eindaemmung-des-populismus-beitragen.html

Gold, R. and Lehr, J. (2024): Paying off populism: how regional policies affect voting behavior. Kiel Institute for the World Economy, No. 2266. Available at: https://www.ifw-kiel.de/publications/paying-off-populism-how-regional-policies-affect-voting-behavior-32685/

Griffith-Jones, S. (2020): Promoting investment in the European Union, evaluating the Juncker plan, in: *Open Access*, 323–335 (10 December); available at: https://link.springer.com/chapter/10.1007/978-3-030-54895-7_21

Grund, S. and Steinbach, A. (2023): European Union debt financing: leeway and barriers from a legal perspective, in: *Bruegel* (15) (12 September); available at: https://www.bruegel.org/sites/default/files/2023-09/WP%2015.pdf

Hagemeyer, L., Faus, R. and Bernhard, L. (2024): Vertrauensfrage Klimaschutz. Friedrich-Ebert-Stiftung (January); available at: https://www.fes.de/vertrauensfrage-klimaschutz#c356703

Hebous, S., Prihardini, D. and Vernon, N. (2022): Excess profit taxes: historical perspective and contemporary relevance. International Monetary Fund (16 September); available at: https://www.imf.org/en/Publications/WP/Issues/2022/09/16/Excess-Profit-Taxes-Historical-Perspective-and-Contemporary-Relevance-523550

Heimberger, P. and Lichtenberger, A. (2023): RRF 2.0: a permanent EU investment fund in the context of the energy crisis, climate change and EU fiscal rules. The Vienna Institute for International Economic Studies (January); available at: https://wiiw.ac.at/rrf-2-0-a-permanent-eu-investment-fund-in-the-context-of-the-energy-crisis-climate-change-and-eu-fiscal-rules-dlp-6425.pdf

Hoerber, T., Kurze, K. and Kuenzer, J. (2021): Towards ego-ecology? Populist environmental agendas and the sustainability transition in Europe, in: *The International Spectator* 56(3), 41–55 (30 July); available at: https://www.tandfonline.com/doi/full/10.1080/03932729.2021.1956718

Huber, R.A., Maltby, T., Szulecki, K. and Cetković, S. (2021): Is populism a challenge to European energy and climate policy? Empirical evidence across varieties of populism. *Journal of European Public Policy* 28, 998–1017 (7 May); available at: https://www.tandfonline.com/doi/full/10.1080/13501763.2021.1918214

Hübscher, E., Sattler, T. and Wagner, M. (2023): Does austerity cause polarization? *British Journal of Political Science* 53, 1170–1188 (14 April); available at: https://www.cambridge.org/core/services/aop-cambridge-core/content/view/5A92279ABBEE623D38E438848B03C060/S0007123422000734a.pdf/does-austerity-cause-polarization.pdf

IETA (2023): *GHG Market Sentiment Survey 2023*. Available at: https://ieta.b-cdn.net/wp-content/uploads/2023/09/IETA_GHGSentimentSurvey_2023.pdf

Institute for Economics and Peace (2020): *Over one billion people at threat of being displaced by 2050 due to environmental change, conflict and civil unrest*. Available at: https://www.economicsandpeace.org/wp-content/uploads/2020/09/Ecological-Threat-Register-Press-Release-27.08-FINAL.pdf

Institut Rousseau (2024): *Road to net zero – bridging the green investment gap*. January. Available at: https://drive.google.com/file/d/1cDQmQ-B0iezwthxiaoM83VxbllhrNz-0O/view?pli=1

Interinstitutional Agreement L 433 I/28. (2020): *Official Journal of the European Union*. 22 December. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32020Q1222(01)

Jansen, J. (2023): When Europe talks climate, it needs to think jobs. Hertie School Jacques Delors Centre Policy Brief (6 December); available at: https://www.delorscentre.eu/en/publications/skilled-workers-in-the-green-transition

Jansen, J., Jäger, P.and Redeker, N. (2023): For climate, profits, or resilience? Hertie School Jacques Delors Centre Policy Brief, 1–27 (5 May); available at: https://www.delorscentre.eu/fileadmin/2_Research/1_About_our_research/2_Research_centres/6_Jacques_Delors_Centre/Publications/20230505_JDC_IRA.pdf

Jung, C. and Hayer, C. (2023): Inflation, profits and market power – towards a new research and policy agenda. IPPR and Common Wealth (December); available at: https://ippr-org.files.svdcdn.com/production/Downloads/1701878131_inflation-profits-and-market-power-dec-23.pdf

Känzig, D.R. (2023): *The unequal economic consequence of carbon pricing*. National Bureau of Economic Research Working Paper (May); available at: https://www.nber.org/system/files/working_papers/w31221/w31221.pdf

Kapeller, J., Leitch, S. and Wildauer, R. (2023): Can a European wealth tax close the green investment gap? *Ecological Economics*, 209 (July), 107849; available at: https://doi.org/10.1016/j.ecolecon.2023.107849

Kaya (2023): Race to the top on clean energy – The US and EU response to China's dominance. Inevitable Policy Reponse (January). Available at: https://www.unpri.org/download?ac=17824

Koch, C.M., Meléndez, C and Kaltwasser, C.R. (2021): Mainstream voters, non-voters and populist voters: what sets them apart? *Political Studies*, OnlineFirst Articles, 1–56; available at: https://www.ssoar.info/ssoar/bitstream/handle/document/75755/ssoar-polstud-2021-Online-First%20Articles-koch_et_al-Mainstream_voters_non-voters_and_populist.pdf?sequence=1

Kolesnichenko, A. (2023): The macro-economic impact of the cost crisis. FEPS Policy Brief. Available at: https://feps-europe.eu/wp-content/uploads/2023/11/The-macro-economic-impact-of-the-cost-crisis.pdf

Kollatz, M. and Horn, G. (2024): *Was tun nach Karlsruhe? Wie man Investitionen unter dem Regime der Schuldenbremse noch möglich machen kann*. Blog Politische Ökonomie (16 January). Available at: https://www.blog-bpoe.com/2024/01/16/was-tun-nach-karlsruhe-wie-man-investitionen-unter-dem-regime-der-schuldenbremse-noch-moeglich-machen-kann/

Kotz, M., Levermann, A. and Wenz, L. (2024): The economic commitment of climate change. *Nature* 628, 551–557 (17 April); https://www.nature.com/articles/s41586-024-07219-0

Krahe, M. and Mühlenweg, L. (2024): Unnötige Schwerlastprobe. *Dezernat Zukunft* (25 January); available at: https://www.dezernatzukunft.org/unnoetige-schwerlastprobe/

Krebs, T. (2023, September): Ökonomische Analyse einer Verlängerung und Modifizierung der Strompreisbremse. Working Paper Forschungsförderung No. 305, Hans-Böckler-Stiftung. Available at: https://www.boeckler.de/de/faust-detail.htm?sync_id=HBS-008699

Lange, F. and Weig, S. (2023): Diskussionspapier Transformationsfinanzierung von Industrie-Unternehmen. Sustainable Finance Beirat (9 November). Available at: https://sustainable-finance-beirat.de/wp-content/uploads/2023/12/SFB_Diskussionspapier_Transformationsfinanzierung_Industrieunternehmen_2023.pdf

Levitsky, S. and Way, L. (2020): The new competitive authoritarianism, in: *Journal of Democracy* 31(1), 51–65 (January); available at: https://muse.jhu.edu/pub/1/article/745953/pdf

Lindner, J., Nguyen, T. and Hansum, R. (2023): What does it cost? Financial implications of the next enlargement. Hertie School Jacques Delors Centre (14 December); available at: https://www.delorscentre.eu/fileadmin/2_Research/1_About_our_research/2_Research_centres/6_Jacques_Delors_Centre/Publications/20231213_LindnerNguyenHansum_Enlargement.pdf

Meijers, M.J., Bremer, B., Kuhn, T. and Nicoli, F. (2023): Partisan cueing and preferences for fiscal integration in the European Union. Department of Political Science, Radboud University Nijmegen (November). Available at: https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwj_rfeMu7m-CAxUMwAIHHTASCaMQFnoECBAQAQ&url=https%3A%2F%2Fosf.io%2Fbmf5e%2Fdownload&usg=AOvVaw0iLmWYBR8-iUZnL6rRdkt-N&opi=89978449

Open Procurement EU (2021): *The need for transparency over Europe's recovery and resilience facility*. Available at: https://www.access-info.org/wp-content/uploads/RFF_transparency.pdf

Pisani-Ferry, J. (2021): Climate policy is macroeconomic policy, and the implications will be significant. 21–20 Peterson Institute for International Economics (August); available at: https://www.piie.com/sites/default/files/documents/pb21-20.pdf

Pisani-Ferry, J., Tagliapietra, S., Zachmann, G. (2023): A new governance framework to safeguard the European Green Deal, in: *Bruegel* (6 September); available at: https://www.bruegel.org/policy-brief/new-governance-framework-safeguard-european-green-deal

Rehm, M., Huwe, V. and Bohnenberger, K. (2023): Klimasoziale Transformation – Klimaschutz und Ungleichheitsreduktion wirken Hand in Hand. Bertelsmann Stiftung (7 February); available at: https://www.bertelsmann-stiftung.de/de/publikationen/publikation/did/klimasoziale-transformation-klimaschutz-und-ungleichheitsreduktion-wirken-hand-in-hand

Rousseau Institute (2024): *Road to Net Zero: Bridging the Green Investment Gap* (January). Available at: https://institut-rousseau.fr/road-2-net-zero-en

Ruth-Lovell, S. and Grahn, S. (2023): Threat or corrective to democracy? The relationship between populism and different models of democracy, in: *European Journal of Political Research 62*, 677–698 (August); available at: https://ejpr.onlinelibrary.wiley.com/doi/10.1111/1475-6765.12564

Schratzenstaller, M. et al. (2022): New EU own resources: possibilities and limitations of steering effects and sectoral policy co-benefits. European Parliament Policy Department for Budgetary Affairs (March); available at: https://www.europarl.europa.eu/RegData/etudes/STUD/2022/731895/IPOL_STU(2022)731895_EN.pdf

Schuster, F. and Sigl-Glöckner, P. (2023): Zinsen, Fiskalregeln und Brandbeschleuniger. *Dezernat Zukunft (*1 June); available at: https://www.dezernatzukunft.org/zinsen-fiskalregeln-und-brandbeschleuniger/

Sigl-Glöckner, P. (2023): Reforming EU economic governance. *Dezernat Zukunft* (28 February); available at: https://www.dezernatzukunft.org/wp-content/uploads/2023/03/Slides-Philippa-Sigl-Gloeckner-2.pdf

Stiftung Klima Wirtschaft (2024): Stiftung KlimaWirtschaft startet Appell mit über 50 Unternehmen: Transformation und Demokratie sichern! Pressemitteilung Stiftung KlimaWirschaft (27 January); available at: https://klimawirtschaft.org/presse/pressemitteilungen/stiftung-klimawirtschaft-startet-appell-mit-ueber-50-unternehmen-transformation-und-demokratie-sichern

Storks, S., Ludwig, L., Schläger, C. and Güttler, M. (2023): Mehr Umverteilung wagen: politische Einstellungen zu Finanzpolitik, Steuern und Gerechtigkeit. Friedrich-Ebert-Stiftung (June). Available at: https://www.fes.de/index.php?eID=dumpFile&t=f&f=89266&token=4a0e5e486d056e98ddd80b4c83e37908face5cd1

Tagliapierta, S., Veugelers, R. and Zettelmeyer, J. (2023): Rebooting the European Union's net zero industry act. Bruegel Policy Brief 15/23, 1–12 (June); available at: https://www.bruegel.org/sites/default/files/2023-07/PB%2015%202023.pdf

The PopuList (2023): https://popu-list.org/

Thie, J.E., Teitge, J., Trauboth, A., Jaeger, C. (2022): Wie viel Wachstum – welches Wachstum? Institut für Makroökonomie und Konjunkturforschung (November). Available at: https://www.imk-boeckler.de/de/faust-detail.htm?sync_id=HBS-008455

Trautvetter, C. (2024): Why the EU needs an excess profits tax. *The Left in the European Parliament.* Available at: https://left.eu/app/uploads/2024/05/The-Left-Excess-Profits-Tax_08052024.pdf

UNEP (2023): Emissions Gap Report 2023 (20 November); available at: https://www.unep.org/resources/emissions-gap-report-2023

UNHCR (2016): Frequently asked questions on climate change and disaster displacement (6 November); available at: https://www.unhcr.org/news/stories/frequently-asked-questions-climate-change-and-disaster-displacement

Van den Noord, P. (2024): *Policy priorities and initiatives for financing EU's growth model and withstanding global challenges?.* Economic Governance and EMU Scrutiny Unit European Parliament (March); available at: https://www.europarl.europa.eu/RegData/etudes/STUD/2024/747837/IPOL_STU(2024)747837_EN.pdf

Vanhercke, B. and Verdun, A. (2022): The European semester as goldilocks: macroeconomic policy coordination and the recovery and resilience facility, in: *Journal of Common Market Studies* 60(1), 204–223; available at: https://onlinelibrary.wiley.com/doi/pdfdirect/10.1111/jcms.13267

Van Nieuwenhuijzen, V., Willner, M., Reinders, S. and Utkarsh, A. (2023): *The US inflation reduction act is driving clean-energy investment one year in.* Goldman Sachs (31 October); available at: https://www.gsam.com/content/gsam/us/en/institutions/market-insights/gsam-insights/perspectives/2023/us-inflation-reduction-act-is-driving-clean-energy-investment-one-year-in.html

Van 't Klooster, J. (2022): What to do with the ECB's secondary mandate, in: *Journal of Common Market Studies* 61(3), 730–746 (12 September); available at: https://onlinelibrary.wiley.com/doi/epdf/10.1111/jcms.13406

Van 't Klooster, J. and Grünewald, S. (2022): An EP-ECB interinstitutional agreement on monetary policy. The Greens/EFA in the European Parliament (June); available at: https://www.greens-efa.eu/files/assets/docs/monetary-policy_00_web.pdf

Velten, E.K. et al. (2023): *State of EU progress to climate neutrality.* Economic Climate Neutrality Observatory (June); available at: https://climateobservatory.eu/report/state-eu-progress-climate-neutrality

Voigts, S. and Paret, A.C. (2024): Emissions reduction, fiscal costs, and macro effects: a model-based assessment of IRA climate measures and complementary policies. International Monetary Fund (9 February); available at: https://www.imf.org/en/Publications/WP/Issues/2024/02/09/Emissions-Reduction-Fiscal-Costs-and-Macro-Effects-A-Model-based-Assessment-of-IRA-Climate-544749

Watzka, S. and Watt, A. (2020): The macroeconomic effects of the EU recovery and resilience facility. Institut für Makroökonomie und Konjunkturforschung Policy Brief (October); available at: https://www.imk-boeckler.de/de/faust-detail.htm?sync_id=9110

Weber, I.M., Beckmann, T., Thie, J-E. (2023): The tale of the German gas price brake: why we need economic disaster preparedness in times of overlapping emergencies, in: *Intereconomics Review of European Economic Policy* 58(1), 10–16; available at: https://www.intereconomics.eu/contents/year/2023/number/1/article/the-tale-of-the-german-gas-price-brake-why-we-need-economic-disaster-preparedness-in-times-of-overlapping-emergencies.html

Wegscheider, C., Kaltwasser, C.R. and Van Hauwaert, S.M. (2023): How citizens' conceptions of democracy relate to positive and negative partisanship towards populist parties, in: *West European Politics* 46(7), 1235–1263 (11 May); available at: https://www.tandfonline.com/doi/full/10.1080/01402382.2023.2199376

Wildauer, R. and Leitch, S. (2022): How to address Europe's green investment gap. FEPS (April); available at: https://feps-europe.eu/wp-content/uploads/2022/05/final_5-may-22_footer-amend_how-to-address-europes-green-investment-gap.pdf

Wildauer, R., Leitch, S. and Kapeller, J. (2021): Is a €10 trillion European climate investment initiative fiscally sustainable? Greenwich Papers in Political Economy, No: GPERC89, 1–33. Available at: https://gala.gre.ac.uk/id/eprint/34344/7/34344%20WILDAUER_European_Climate_Investment_%28GPERC%29_2021.pdf

YouGov (2023): Eurotrack Survey Results (24 April). Available at: https://d3nkl3psvxxpe9.cloudfront.net/documents/Eurotrack_ClimateChange_Apr23_W.pdf

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AN EU FUTURE FUND: WHY AND HOW?

Background Paper of the Progressive EU Fiscal Policy Network

The climate crisis, geo-economic challenges and the rise of radical right forces in Europe require new EU financing instruments for the socio-ecological transformation from 2027 at the latest: this is when existing EU funding pots will halve in size, precisely when rising CO_2 prices increase the pressure on the economy and society and new fiscal rules will push member states to consolidate. This status quo not only risks delaying the transformation and increasing climate costs. The EU is also at risk of losing out in geo-economic competition with the USA and China, of fragmenting the internal market through national subsidy policy of financially stronger countries and of further boosting radical right-wing transformation resistance.

A new EU investment fund from 2027 onwards,focused on strategic investments in the future of the single market, could overcome this imbalance in a smart division of division of labour with member states and other EU programmes. Through various instruments and forms of disbursement, it can strengthen private and public investments and add economic value through transnational links and economies of scale in the internal market. Social conditionality of subsidies, social partnership and participation are central to making such a fund successful, as is the transparent, earmarked allocation of funds.

Conservatively estimated, the transformation of the internal market requires additional public investment of at least 1 per cent of EU GDP per year, comparable to the entire current seven-year EU budget. To finance these vast amounts, new EU own resources are crucial, both to limit national contributions and to enable additional investments through new EU bonds. Several legal avenues are possible, but all require a unanimous unanimous and ratified reform of the Own Resources Decision. The dispute over this will characterise the new EU legislature, but it enables a broad social alliance at both national and European levels. It may be capable of winning a majority if the unresolved underlying problems addressed by the fund are primarily emphasised.

Further information on the topic can be found here:
https://www.fes.de/politik-fuer-europa

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