



Federal Ministry
of Finance



German Recovery and Resilience Plan

Draft

AUF BAU



Preface

The Covid-19 crisis constitutes one of the biggest challenges in the history of the European Union and the Federal Republic of Germany in terms of its impact on health, society and, in particular, the economy. The European Union has taken robust action in response to the crisis. With the recovery instrument Next Generation EU, which amounts to €750 billion, and its largest funding instrument – the Recovery and Resilience Facility (RRF), worth €672.5 billion – the foundations have been laid to emerge together from the crisis even stronger than before.

The German government also took swift and decisive action mitigating the economic and social impact of the pandemic and allowing the country to get back on track after the crisis. In June 2020, a comprehensive economic stimulus package was launched, combining stimulus measures with important investments in the future. With the German Recovery and Resilience Plan (GRRP), the federal government contributes to overcoming the Covid-19 crisis and to safeguarding the future of Germany and Europe.

With its country-specific recommendations (CSRs) issued in the context of the European Semester, the EU has given Germany important input for the reforms that need to be made. The German government is taking these recommendations into account. It has already implemented multiple reforms on the basis of the CSRs. The reforms and investments presented within the framework of this plan are fully in line with the CSRs directed at Germany.

The federal government's agenda presented in this recovery plan corresponds to the key objectives of the European recovery plan Next Generation EU and its Recovery and Resilience Facility. The focus of the GRRP is on tackling the two major challenges of our time, namely climate change and the digital transformation. As part of this, the climate-friendly measures cover a broad spectrum, from decarbonisation by means of renewable hydrogen, to climate-friendly mobility, all the way to climate-friendly construction. The aspiration of digitalisation affects almost all the measures in the recovery plan. Beyond investment in the rapid digitalisation of infrastructure and the private sector, the focus is also on data as the fundamental raw material for the future. The plan also includes a national digital education initiative.

Investment in education, innovation and the energy transition will also pay out after the crisis with regard to an economy and society becoming resilient and future-proof. In this way, the use of the European grants for investment purposes will make an important contribution to our prosperity and to ensuring the long-term sustainability of public finances.

An effective community is the hallmark of a resilient economy and society. Covid-19 has made crystal clear how important a strong social welfare state is. The hardest-hit and the most vulnerable groups need our support. For this reason, a particular focus is on measures to promote social inclusion and participation in the labour market, which take gender equality into account. Social resilience also includes strengthening the public health system and fostering a pandemic protection scheme. Against that background, highly effective social infrastructure elements that protect the health of the population constitute an integral component of the GRRP.

Structural change and a future oriented approach will not be possible without a capable public administration that acts effectively and efficiently, particularly facilitating and pushing forward investment in the future. The public administration at the level of local authorities, the Länder and the Federation has proved its capability in the Covid-19 crisis. Germany is continuing to work on accelerating and digitalising processes and reducing existing capacity bottlenecks in order to strengthen public and private investment activity.

The current draft GRRP translates the political priorities into measures that are appropriate for addressing both the key domestic challenges of the future and the priority areas of the European recovery instrument. In that sense it forms the basis for a consultation with the European Commission, including on still-to-be-defined goals and milestones for the individual measures, with the aim of finalising the GRRP in connection with the National Reform Programme in April 2021, that in view of the final negotiated regulation on the RRF, for submission to the European Commission.

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The left side of the page features a series of overlapping blue geometric shapes. At the top left is a solid dark blue rectangle. Below it, a large dark blue shape extends downwards, with a lighter blue triangular section at its top-left corner. To the right of this large shape is another lighter blue trapezoidal shape. The overall effect is a modern, abstract design.

1. Summary

The European Recovery and Resilience Facility (RRF) serves to promote the economic, social and territorial cohesion of the European Union, to strengthen economic and social resilience, to mitigate the social and economic impact of the crisis, and to support the green and digital transitions. In order to obtain funds from the RRF, Member States have to submit a national recovery and resilience plan (Articles 14 and 15 of the Proposal for a Regulation of the European Parliament and of the Council establishing a Recovery and Resilience Facility). The Draft German Recovery and Resilience Plan (GRRP) contains proposals from the federal government for measures that serve to achieve the objectives of the facility.

Germany is facing major challenges in the area of **climate protection**. Large-scale global decarbonisation is essential in order to halt human-made climate change. Achieving decarbonisation without a decline in quality of life, and linking decarbonisation to a new impetus for value creation and employment on the road to the post-fossil age, are some of the most important tasks of economic policy. Promotion of climate-friendly action is therefore a key pillar of the GRRP. Three components are dedicated to this

task alone, from decarbonisation by using renewable hydrogen in particular (component 1.1), to climate-friendly mobility (component 1.2) and climate-friendly construction and renovation (component 1.3). These programme elements thus also address three key European flagship initiatives¹ (see info box): *Power up*, *Renovate* and *Recharge and refuel*. In total, about 40 % of the expenditure in this draft plan contributes to climate action, thereby fulfilling a key objective for the national recovery plans.

The successful **digitalisation** of the economy and infrastructure is of crucial importance to ensure that Germany and Europe are ready for the future. For this reason, the second focal point of the GRRP is the digital transformation. The two components that are in quantitative terms most important are “data as the raw material of the future” (component 2.1) and the promotion of the digital transition of the economy (component 2.2). The German plan in that sense makes an important contribution to the European flagship goals of *Connect*, *Modernise* and *Scale-up*. In total, over 40 % of expenditure contributes to the digital transition. Hence, the requested European target of 20 % for digital will be exceeded by a large margin in the current plan.

1 European Flagships, Communication from the Commission to the European Parliament, the European Council, the Council, the European Central Bank, the European Economic and Social Committee, the Committee of the Regions and the European Investment Bank, Annual Sustainable Growth Strategy, 2021, COM (2020) 575 final.

Info box: EU flagships

Flagship initiative	Objective by 2025
1. Power up	Clean, future-proof technologies will be introduced at an early stage and the use of renewable energies will be accelerated through network integration and interconnectivity. The foundation for hydrogen lead markets and infrastructure will be laid by means of the build-up and sector integration of almost 40 % of the 500 GW of electricity that will need to be generated from renewable energy sources by 2030, the creation of 6 GW of electrolysis capacity and the generation and transportation of one million tonnes of renewable hydrogen by 2025.
2. Renovate	Improving energy and resource efficiency in public and private buildings will help to achieve the EU's climate targets, create jobs and promote digital development. The aim is to double the renovation rate by 2025.
3. Recharge and refuel	Support for clean technologies for the use of sustainable, smart means of transport, support for charging stations and filling stations, and for the expansion of public transport networks. By 2025, one million of the three million charging stations needed by 2030 and 50 % of the 1,000 hydrogen stations needed, shall be provided.
4. Connect	Only 44 % of households currently have access to networks with very high capacity, while network coverage in rural areas is considerably lower. The rapid expansion of fast broadband services for the benefit of all regions and households, including fibre-optic and 5G networks, and the development of quantum encrypted communications are of crucial importance in order to ensure the highest possible territorial coverage and to ensure the strategic autonomy of the EU. The measures provided for in the Recovery and Resilience Facility should ensure the maximum possible 5G coverage in all areas by 2025.
5. Modernise	EU identification services and digital public services should be modernised and accessible to everyone. With secure, EU-wide electronic identification and authentication with respect to government agencies and private operators, citizens will gain control over their online identity and their data, and access to digital online services will be made easier. The public administration and public services (including the judicial and healthcare systems) will become more efficient. By 2025, a European digital identity (eID) will be introduced, and interoperable, personalised and user-friendly digital public services will be provided.
6. Scale-up	The cloud capacity of European industry must be increased, and powerful, sustainable processors must be developed. By 2025, the production of semiconductors in Europe will be doubled, and processors that are ten times more energy-efficient will be produced. This will rapidly advance the use of connected vehicles, and the use of advanced cloud services and big data will be doubled (from the current level of 16%).
7. Reskill and upskill	Investment in retraining and further training measures and reforms should be targeted towards digital skills and general and vocational training in all age groups. In 2019, 42 % of Europeans lacked basic digital skills. By 2025, the proportion of those aged between 16 and 74 years with digital skills should increase to 70 %. Education systems need to be adapted to the challenges of the 21st century by means of a significant improvement in pupils' digital skills. The proportion of 13- and 14-year-old pupils whose performance in the area of computer and IT skills is below average will fall to under 15 %, and priority will be given to disadvantaged groups, women and in particular young people by means of high-quality employment opportunities and vocational education and training. By 2025, four out of five people who have completed vocational training should be in employment, and three out of five people should be completing further training measures while in work.

Education (including basic and further education, training and requalification) is of high importance for long-term potential growth and wealth creation. The Covid-19 crisis has revealed, not for the first time, that Germany is facing considerable challenges in the field of digital literacy in particular. This concerns both device infrastructure as well as the associated platforms and competences. A digital education initiative (component 3.1) will exploit the opportunities and potential that digitalisation is able to offer to individuals and society, by opening up equal educational opportunities irrespective of family background or ethnic origin. In addition, the promotion of the future labour market opportunities ensure success possibilities for all young people. The GRRP is thus making an important contribution to the EU flagship *Reskill and upskill*.

The Covid-19 crisis has highlighted the importance of **social cohesion** in overcoming serious crises. Although Germany has a strong sense of community and comparatively high levels of social protection, the Covid-19 pandemic has made it apparent that the hardest-hit and most vulnerable groups require targeted support. Therefore, an important goal of the recovery plan is to strengthen social inclusion, in particular by improving conditions for participation in the labour market and hence for appropriate wage growth, and by ensuring that the pension system is sustainable while simultaneously securing adequate pensions. Component 4.1 enhances social inclusion and contributes to three EU flagship initiatives: *Renovate*, *Modernise* and *Reskill and upskill*.

By funding the accelerated research and development of urgently needed vaccines against Covid-19, the GRRP contributes to urgent efforts to fight the pandemic. Although Germany has so far proved better than average at cushioning the effects of the pandemic on the healthcare sector, the crisis has, however, also revealed structural challenges for the German **healthcare system** (component 5.1). To ensure that it is equipped for the future, significant action is required in areas of the public health service that are relevant to the pandemic, but also with regard to the further development of the hospital sector. The public health service will be strengthened in digital and technical terms, to ensure a long-term improvement in its resilience as an important pillar of the public healthcare system in Germany. Hospitals can take advantage of a targeted support programme to make themselves more future-ready, again with a focus on digitalisation.

In Germany, the state has proved to be effective and capable of taking action during the crisis. However, experience has also shown that transformation and a forward-looking approach cannot succeed without a **public administration** that keeps pace with new developments and which in some cases can even provide the impetus for change. The first component of the measures (component 6.1) therefore focuses on increasing digitalisation in the public administration, but also on building up infrastructure that will enable identities to be established on the Web without assistance from the major platforms. This component takes into account the EU flagship *Modernise*. **Reducing barriers to investment** is also key to modernising the country (component 6.2.). This component focuses on effective regulation that encourages innovation and on a service-oriented public administration. It therefore implements a major country-specific recommendation aimed at Germany.



2. Financial framework

When drawing up the GRRP, the federal government is in a close policy dialogue with the European Commission with the aim of identifying projects and reform measures that have a good chance of being implemented effectively and that support the objectives of the RRF. The volume of the measures included in this draft plan exceeds the fiscal envelope that is currently projected, in the clear knowledge that adjustments will have to be made in the course of drawing up the final Recovery and Resilience Plan, taking into account the provisions of the final regulation and the increasing specificity of many measures. It must also be borne in mind that there may be shifts in emphasis in subsequent years with regard to reforms and long-term investments, which may require amendments to the plan within the framework of Article 18 of the Proposal for Recovery and Resilience Facility.

In accordance with the conclusions of the European Council of July 2020, funds from the RRF can be committed in the years from 2021 to 2023 and spent up to 2026. According to current estimates based on the European Commission's autumn forecast, Germany is entitled to subsidies of around €23.641 billion from the RRF, of which €15.201 billion (70 %) is committed for the years 2021/22 and €8.444 billion (30 %) is committed for 2023 (in 2018 prices) (Article 11 of the Proposal for a Regulation of the European Parliament and of the Council establishing a Recovery and Resilience Facility). Calculated at current prices, the RRF funds come to approximately €25 ½ billion, including around €16.3 billion in 2021/22 and about €9.3 billion from 2023 onwards. It must be borne in mind that the 30 % tranche for the years from 2023 onwards could change significantly if the key macro-economic data in the EU Member States are revised. Unless stated otherwise, all information hereinafter is given in current prices. In order for funds to be drawn on, predefined milestones and targets need to be met; these need to be implemented by July 2026 at the latest.

Allocations from other NGEU funds, such as from the Just Transition Fund, are not included in the framework of this recovery plan. These funds also contribute to the financing of important transformative tasks, particularly in the area of structural adjustments, and should therefore be taken into account in an overall evaluation of German policies in this area. Nevertheless, a co-financing via other EU funds for planned measures is additionally possible, provided that they comply with the guidelines for the relevant European funds, and in this respect is also reported accordingly. Furthermore, a quite substantial co-financing is provided in individual cases by the German Länder and the local authorities for certain measures at the federal level financed by the RRF. The federal government measures requested here thus create clear positive incentives for the Länder and the municipalities, as well as for the private sector, therefore leveraging the effectiveness of the measures of this plan.

The GRRP measures are already included in the 2021 federal budget (adopted by the German Bundestag on 11 December 2020) and in the medium-term financial plan for the period up to 2024, which is to be updated in early 2021 as part of the budgetary benchmark decisions for the next financial plan. The provisions in the financial plan for the implementation of the economic stimulus package are to be used primarily for the GRRP measures. With a view to the fiscal framework created by the federal budget and the financial plan, the measures announced here must be classified as provisional from a fiscal viewpoint. A definitive review of the budgetary specifications will be carried out before the final recovery plan is produced.



3. Linking the plan with the European Semester

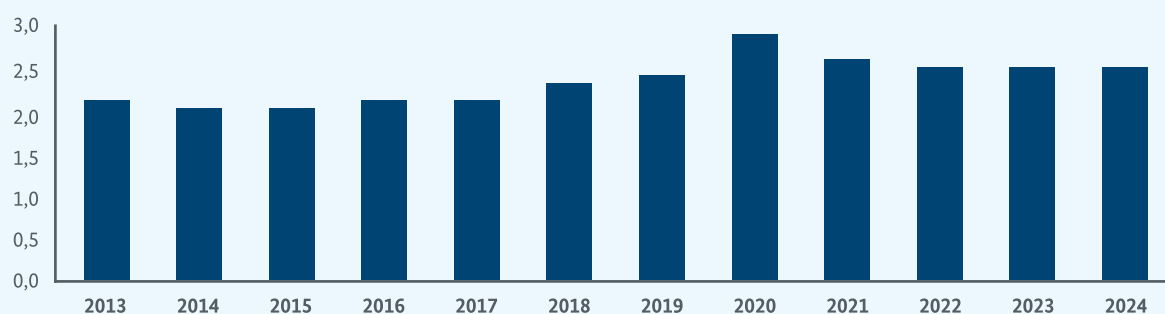
The measures in the Recovery and Resilience Plan take into account all the relevant country-specific recommendations from the European Semester process for the years 2019 and 2020 (see info boxes). The plan thus supplements the comprehensive information system of the National Reform Programme (in the context of the Macroeconomic Imbalance Procedure, for example, but also with regard to the Sustainable Development Goals), as well as reporting within the scope of the Draft Budgetary Plan and the Stability Programme (with respect to fiscal policy recommendations).

The country-specific recommendations for both 2019 and 2020 call on Germany to increase its investment activity. The measures included in the GRRP from the federal government's economic stimulus and future development package raise investment spending to a historic level. There will be a focus on investments in digitalisation and in emissions-free energy and mobility. As well as investment in technologies and innovations and fundamental reforms in the area of data infrastructure (component 2.1), the funding priority of digitalisation covers the areas of education (component 3.1 and 2.2), the economy (component 2.2), public administration (component 6.1 and components 2.1 and 4.1) and the healthcare system (component 5.1). In addition, climate action is a major focus of the investments contained in the GRRP, including green hydrogen as a drive technology (component 1.1), electric mobility (component 1.2) and energy-efficient building renovation (component 1.3).

The measures presented in the recovery plan are thus embedded in a forward-looking national investment strategy that systematically implements the recommendations aimed at Germany. Investment spending is being significantly increased (see figure 1) with a ten-year investment programme, while the EU funds available through the RRF will simultaneously help to provide lasting fiscal support for this investment strategy and allow for a frontloading of investment measures. This will help to modernise infrastructure, increase productivity and improve overall economic growth potential.

The comprehensive investment measures are supplemented and made more effective by far-reaching reforms, particularly in the context of the public administration. For example, the possibility of a joint initiative with Partnerschaft Deutschland is being pursued (component 6.2). The aim is to systematically identify barriers to the outflow of funds at the various levels of the public administration and to develop concrete proposals for solutions on this basis. On 2 December 2020, the federal government and the Länder agreed for the first time on a detailed work programme for a public administration that is efficient, citizen-friendly and business-friendly; the programme will develop measures to simplify legal matters and speed up planning and infrastructure projects. The Investment Acceleration Act (Investitionsbeschleunigungsgesetz) recently passed by the Bundestag aims in particular to avoid duplicate reviews of major investment projects. These reforms address the key country-specific recommendation that barriers in the area of public and private investment activity should be reduced.

Figure 1: Government gross fixed capital formation (in % of GDP and average growth rate)



Sources: until 2019: Federal Statistical Office, November 2020 figures; from 2020 onwards: Federal Ministry of Finance projection, last updated December 2020.

Significant measures of the GRRP will comprehensively strengthen the effectiveness and digitalisation of the public administration. A specific component is dedicated to this issue (component 6.1), which includes important reforms relating to public administrative services in the form of the European identity ecosystem, the implementation of the Online Access Act and the modernisation of registers. Further groundbreaking reforms are planned in this area with the digital pensions overview (component 4.1) and the digitalisation of the public health service (component 5.1).

In addition, the 2019 country-specific recommendations require Germany to a) reduce disincentives to work more hours (particularly for low-wage and second earners), strengthen the conditions that support higher wage growth while respecting the role of the social partners, and c) take measures to safeguard the long-term sustainability of the pension system while simultaneously keeping pensions at an adequate level. This is where component 4.1 comes in, with measures at different stages in the life cycle (investment in childcare facilities, trainee support, Social Guarantee 2021, digital pensions overview). Furthermore, the comprehensive investments and reforms in the areas of digital education (component 3.1) and further training in particular (skills alliances in component 2.2) create the conditions for participation in the labour market and long-term safeguarding of employability, and strengthen the educational outcomes and skill levels of disadvantaged groups.

Funding for a special programme to accelerate the research and development of urgently needed vaccines against Covid-19 serve specifically to combat the pandemic. The long-term resilience of the health-care system will be supported by strengthening the digital and technical resources of the public health service and through the programme to future-proof hospitals (Zukunftsprogramm Krankenhäuser) (component 5.1).

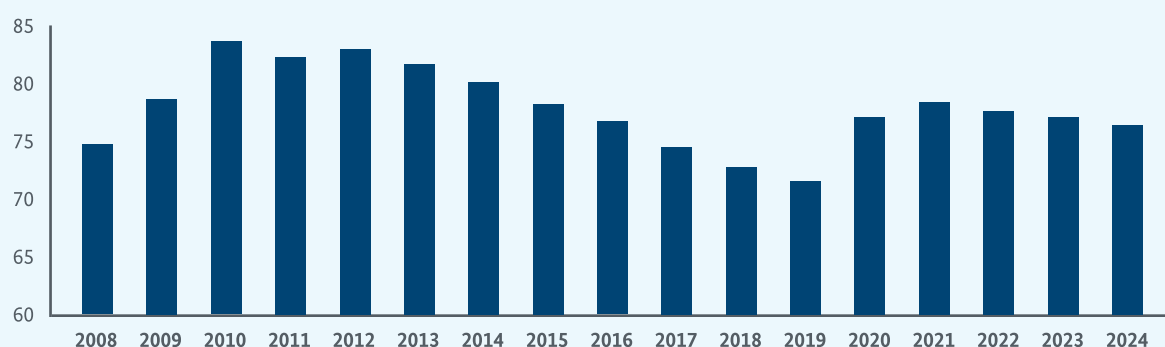
Finally, the 2020/21 country-specific recommendations call on Germany to combat the economic consequences of the pandemic effectively and to support the economy and promote its recovery, while also ensuring that debt remains manageable in the medium term. German fiscal policy is strongly expansionary at the current time and therefore follows this recommendation. The federal government's economic stimulus programme thus also provides a significant expansionary fiscal stimulus for the Eurozone. At the same time, the relevant requirement in the German debt brake rule ensures that any additional debt taken on in an emergency which has a structural impact and which exceeds the upper limit for new borrowing must be reduced in the medium term. From 2022 onwards, the deficit is expected to fall below the limit of 3 % of GDP once again and the deficit will be further reduced, with the aim of ensuring that debt remains sustainable. The medium-term budgetary objective (MTO) not exceeding 0.5 % of GDP will be achieved again in 2024, according to projections and the financial plan. Ongoing low interest rates, recovering economic growth and lower levels of new borrowing will help to reduce the debt ratio in the medium term to 68 ¾ % of GDP by 2024 (see table 1 and figure 2).²

A comprehensive overview of the focus of Germany's fiscal policy is provided in the reporting on the Stability Programme and in the Draft Budgetary Plan.

² When calculating budget balances as part of European budgetary surveillance, subsidies from the RRF and the corresponding expenditure are entered in such a way that they have a neutral impact on balances, as defined in the national accounts. Funds from the RRF are thus recorded for statistical purposes in the same way as regular EU subsidies to Member States. At the time the measure is recorded on the expenses side, a corresponding transaction is entered on the revenue side, which ensures that, irrespective of the actual time that the EU subsidy is disbursed, RRF measures are recorded in a way that has a

Table 1: General government budget balance and debt

Government budget As of: 2 December 2020	2019	2020	2021	2022	2023	2024
	% of GDP					
Maastricht budget balance	1.5	-5	-7	-2	-3/4	-1/4
Structural balance	0.7	-2 1/2	-6	-1 3/4	-3/4	0
Debt level	59.6	70	72 1/2	71	70	68 3/4

Figure 2: Trend in the Maastricht debt-to-GDP ratio from 2008 to 2024 (in % of GDP)

Sources: until 2019: German Bundesbank; from 2020 onwards: Federal Ministry of Finance projection, last updated December 2020.

Info box: 2020 Country-Specific Recommendations

1. While respecting the medium-term budgetary objective, use fiscal and structural policies to **achieve a sustained upward trend in private and public investment, notably at regional and municipal level. Focus** investment-related economic policy on **education; research and innovation; digitalisation and very-high-capacity broadband; sustainable transport** as well as **energy networks and affordable housing**, taking into account regional disparities. Shift taxes away from labour to sources more supportive for inclusive and sustainable growth. **Strengthen competition** in business services and regulated professions.
2. Reduce **disincentives to work more hours**, including the high tax wedge, in particular for low-wage and second earners. Take measures to safeguard the **long-term sustainability of the pension system**, while preserving **adequacy**. Strengthen the conditions that support higher wage growth, while respecting the **role of the social partners**. **Improve educational outcomes and skills levels of disadvantaged groups**.

Info box: 2019 Country-Specific Recommendations

3. In line with the general escape clause, take all necessary measures to **effectively address the pandemic**, sustain the economy and support the ensuing recovery. When economic conditions allow, pursue fiscal policies aimed at achieving prudent medium-term fiscal positions and ensuring debt sustainability, while enhancing **investment**. Mobilise adequate resources and **strengthen the resilience of the health system**, including by deploying ehealth services.
4. **Front-load mature public investment projects** and promote private investment to foster the economic recovery. Focus investment on the green and digital transition, in particular on **sustainable transport, clean, efficient and integrated energy systems, digital infrastructure and skills, housing, education and research, and innovation**. Improve **digital public services** across all levels and foster the **digitalisation in small and medium-sized enterprises**. **Reduce the regulatory and administrative burden for businesses**.



4. Description of investment measures and reforms

In June 2020, the German government adopted an economic stimulus and future-oriented package with an unprecedented total volume of over €180 billion in the 2020 and 2021 budgets alone. This is the centrepiece of the federal government's fiscal response to the Covid-19 crisis and is supplemented by measures adopted before and afterwards to deal with the pandemic's impact on health, society and the economy. Along with the traditional "three Ts" of economic policy ("timely", "temporary", "targeted"), the guiding principle was also to take measures to strengthen potential growth in the long term and to facilitate the transition to a climate-neutral and digital future ("transformative"). The measures enshrined in the GRRP systematically reflect the domestic efforts of the economic stimulus package, the timing and scale of which make Germany a pioneer in Europe.

The economic stimulus programme consists of three pillars:

- **The first pillar** – the economic stimulus and crisis management package – boosts overall economic demand and makes additional liquidity available to companies. The federal government is also offering businesses tax incentives in order to maintain investment activity, relieving the pressure on local authorities as a key player in public investment activity, and is bringing forward its own investments.
- The second pillar in the programme is the future development package. With this, the federal government is strengthening private and public investment at all levels in order to drive forward the modernisation of the German economy. These additional investment measures, which are also related to efforts to tackle the effects of the pandemic, but which have a longer time horizon, total around €50 billion overall. This spending will modernise infrastructure and make it more efficient, thereby increasing productivity. Investment in (potentially disruptive) technologies of the future is associated with a longer-term planning and implementation perspective and will increase the potential level of economic development in the long run.
- The third pillar underlines Germany's responsibilities at European and international level as the largest economy in the EU. It includes, for example, a Franco-German initiative that contributed to the realisation of Next Generation EU and will be reflected in joint future projects. Germany is also making funds available at international level in order to step up international cooperation in combating the Covid-19 crisis.

In view of the significant overlap between the goals of the economic stimulus programme and those of the European Recovery and Resilience Facility, the specific measures of the GRRP will concentrate on the following six focus areas:



1. Climate policy and the energy transition



2. Digitalisation of the economy and infrastructure



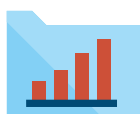
3. Digitalisation of education



4. Strengthening of social inclusion



5. Strengthening of a pandemic-resilient healthcare system



6. Modern administration and reducing barriers to investment

In addition to the measures in the economic stimulus package, the federal government is underlining the focus areas of climate action and digitalisation through further measures in the GRRP. Three “Important Projects of Common European Interest” (IPCEIs) in the areas of hydrogen, microelectronics/communication technologies and cloud/data processing are particularly worth mentioning. These projects can be traced back to the Franco-German technology dialogue and send a strong message about Franco-German cooperation as measures that are simultaneously part of the German and the French recovery and resilience plans (see info box). They build on projects such as the creation of a Franco-German research and innovation network (“virtual centre”) for artificial intelligence and a Franco-German business and innovation park in the context of the future process Fessenheim, which were already agreed in the “Franco-German Agenda” as specific priority projects implementing the Treaty of Aachen. The IPCEIs are open to the participation of other EU Member States.

Info box: IPCEI

Just as with the initiative by Germany and France for the recovery instrument in May 2020, we also want to send out a signal about European cooperation when it comes to the use of funds from the Recovery and Resilience Facility. This will take place in key areas of the digital and green transformation: hydrogen, cloud computing and microelectronics/communication technologies. Three key projects have been developed in these areas in technology dialogues with representatives from business and the European Commission. The specific aim of these projects is to become a nexus for transformations and market adjustments that will lead to structural reforms and will have an EU-wide impact. We want our projects to

- create an integrated EU-wide market for hydrogen production, including cross-border transport infrastructure,
- lay the foundations for a European edge cloud infrastructure, and
- free the EU from dependence on external providers for selected microelectronic communication technologies.

We will make use of the instrument of the IPCEI to implement these projects. The projects are being initiated and promoted by Germany and France; at the same time, as IPCEIs they are projects that have originated in Europe and by definition are thus open to stakeholders from all EU Member States. IPCEIs are also a tried-and-tested instrument of cooperation with the European Commission, particularly with regard to EU state aid control.



5. Details of focus areas for measures and components

Estimated costs of the plan

Table 2: Estimated costs of the plan

Focus area	Component	Total volume in € thousand, current prices	in %
1. Strategy for climate policy and the energy transition	1.1. Decarbonisation using renewable hydrogen in particular	3,259,288	11.1
	1.2. Climate-friendly mobility	6,612,000	22.6
	1.3. Climate-friendly renovation and construction	2,627,000	9.0
2. Digitalisation of the economy and infrastructure	2.1. Data as the raw material of the future	2,824,400	9.6
	2.2. Digitalisation of the economy	3,138,500	10.7
3. Digitalisation of education	3.1. Digitalisation of education	1,435,000	4.9
4. Strengthening of social inclusion	4.1. Strengthening of social inclusion	1,384,300	4.7
5. Strengthening of a pandemic-resilient healthcare system	5.1. Strengthening of a pandemic-resilient healthcare system	4,563,920	15.36
6. Modern public administration and reducing barriers to investment	6.1. Modern public administration	3,474,974	11.9
		0	0
Total		29,319,382	100



Focus area 1: Climate policy and energy transition

Industrialisation has brought major gains in prosperity for Germany and many parts of the world. However, the past two centuries of industrialisation were based on the use of fossil energy sources. The impact on the climate has become a serious threat to our environment and natural resources. We need to stop anthropogenic climate change. The latest UN report shows that there is still a long way to go until the United Nations' Sustainable Development Goals for 2030 are achieved.

In order to achieve the Sustainable Development Goals and the Paris Agreement's targets, the German government and the European Union are working towards achieving net-zero greenhouse gas emissions by 2050. This will require major efforts, but also offers huge opportunities. With regard to our energy supply in particular, complete decarbonisation is required even before 2050.

Germany had already initiated an energy transition at an early stage, with extensive measures that cannot be presented here in detail (e.g. 2010 Energy Strategy, Climate Action Plan 2050, Climate Action Programme 2030, Renewable Energy Sources Act (Erneuerbare-Energien-Gesetz) and the Coal Phase-Out Act (Kohleausstiegsgesetz)).

The projects in the Recovery and Resilience Plan support this strategic objective and can be broken down into the following **components**: decarbonisation using renewable hydrogen in particular, climate-friendly mobility and climate-friendly renovation and construction.

Component 1.1 Decarbonisation using renewable hydrogen in particular

The **National Hydrogen Strategy** describes an important addition to the future energy supply in Germany. It will make a contribution to the decarbonisation of the economy and society. Sustainable CO₂-free hydrogen that is produced using renewable energy will play an important part in achieving energy and climate targets and in the decarbonisation of the economy and parts of the transport sector. It also offers significant opportunities in terms of industrial, innovation and employment policy, including with regard to the export of technology.

At the current time, however, a market for green hydrogen does not exist either at the national or the European level, as the use of green hydrogen technologies is currently even more expensive than using fossil hydrogen. On top of this, green electricity from renewable sources is not yet available in sufficient quantities. In addition, there is currently a lack of proven solutions for the large-scale industrial implementation of a green hydrogen economy, meaning that there is a significant need for further research and innovation.

The National Hydrogen Strategy lays the foundations for making Germany an international lead market and leading provider for the development, manufacture and use of green hydrogen technologies. To do this, Germany must lead the way in manufacturing, infrastructure, research and development and technological development, as well as with regard to the rapid expansion of renewable energy sources that is necessary for the production of green hydrogen. It is clear that the development and use of green hydrogen technologies will require high investments in the beginning, which the state must support with government funding for investments and operating costs.

Table 3: Component 1.1 Decarbonisation solutions using renewable hydrogen in particular

Title of measure	Volume in € thousand	Climate	Digital	Reform	CSR	EU flagship
National Hydrogen Strategy: Flagship projects for research and innovation in the context of the National Hydrogen Strategy	700,000	✓		✓	Investments in the ecological transition, especially clean, efficient energy systems on the basis of renewable energy sources	1. Power up
National Hydrogen Strategy: Hydrogen projects within the framework of IPCEIs (Germany-France)	1,500,000	✓		✓	Investments in the ecological transition, especially clean, efficient and integrated energy systems on the basis of renewable energy sources, oriented towards climate targets	1. Power up
Project-related research (climate protection research)	60,000	✓			Investments in the ecological transition, especially clean, efficient and integrated energy systems; research and innovation on the basis of renewable energy sources	1. Power up
National Hydrogen Strategy: Funding programme for decarbonisation in industry	449,288	✓		✓	Investments in the ecological transition, especially clean, efficient and integrated energy systems on the basis of renewable energy sources	1. Power up
National Hydrogen Strategy: Pilot scheme for climate action contracts based on the principle of Carbon Contracts for Difference	550,000	✓		✓	Investments in the ecological transition, especially clean, efficient and integrated energy systems on the basis of renewable energy sources	1. Power up

The catalogue of measures in the National Hydrogen Strategy combines investment in the development of a hydrogen economy with corresponding initiatives relating to the revision of regulatory law, particularly in the area of price regulation, and thus includes both investments and a significant reform approach. Based on our experiences with the first projects, particularly cross-border infrastructure projects within the scope of the IPCEI, we want to draw up recommendations for adjustments to the regulatory framework at a national level and for structures for the regulatory framework that is needed at EU level. The GRRP will implement important components of the National Hydrogen Strategy.

Specific integrated projects along the entire value-added chain will be promoted within the scope of an **IPCEI for hydrogen** with the aim of accelerating the necessary market ramp-up. There will be a particular emphasis on a) building up large-scale electrolysis capacity for producing green hydrogen at locations where sufficient electricity from renewables is available, b) the industrial use of green hydrogen as a decarbonisation option for large industrial facilities, c) the development of a European value-added chain for fuel cell systems

for vehicle drive systems, d) the development and production of light and heavy lorries/commercial vehicles, buses, freight and passenger trains, cars for use in vehicle fleets, air transport and ship transport with hydrogen-based drives, e) the creation of refuelling infrastructure, including for heavy goods transport, and f) the development of various cross-border flagship projects that will form the core of a European hydrogen network. In addition, it will be essential to create infrastructure to transport hydrogen. It needs to be examined to what extent the existing gas network infrastructure can be used to transport hydrogen. The addition of hydrogen to existing natural gas networks currently in use is not viable for reasons of energy efficiency.

As a Franco-German project, the project contributes to the sovereignty approach to the development of a European value-added chain for key technologies and of infrastructure, with the aim of establishing a European market for green hydrogen. A launch event in conjunction with other Member States is planned for December 2020, and the beginning of the German expression-of-interest procedure for the IPCEI for hydrogen is scheduled for December 2020/January 2021.

The project is linked to the country-specific recommendations in that it contributes to investments in the ecological transition, research and innovation, the decarbonisation of industry and transport, and clean, efficient and integrated energy systems. It also helps to strengthen the competitiveness of the European economy and to preserve its technological leadership and security of supply.

The **funding programme “decarbonisation in industry”** plans, with regard to energy-intensive industries with process-related emissions, to support a) research and development, b) testing in test and pilot facilities, and c) investments in facilities for the industrial-scale application and implementation of measures, provided that they are suitable for bringing about the most substantial and lasting reduction possible in greenhouse gas emissions. In this way, industry can help to achieve net-zero greenhouse gas emissions by 2050.

As an expensive and scarce commodity, green hydrogen will be used where it will have the biggest long-term impact in terms of climate action and where there are no more efficient technical options for decarbonisation. The focus will be on the use of green hydrogen in industry. As well as investment costs, the higher operating costs required for innovative climate action technologies constitute a challenge. The German government will therefore launch a pilot scheme for climate action contracts based on the approach of **Carbon Contracts for Differences (CCfDs)**. This pilot scheme will be geared towards funding for additional operating costs (OPEX) due to climate and environmental action and will thus be a useful supplement to the programmes for funding investment costs.

In addition, further efforts are required in the area of **research and development**, in order to make available the technologies and the associated system knowledge that are necessary to implement the goals of the National Hydrogen Strategy. Corresponding **flagship projects for research and innovation** will be launched to this end.

The funds that are used specifically for **project-related research** will support the development of climate-friendly production processes and combinations of processes in basic industries, contributing directly to the avoidance of greenhouse gases. The emphasis

is on the direct avoidance of process-related CO₂ emissions by developing new production processes, particularly in the context of an initially low level of technological maturity. The support measure is designed to be cross-sectoral and is targeted primarily at companies in the areas of iron/steel/non-ferrous metals, chemicals and minerals (e.g. glass, ceramics, cement). The research approaches consist of, for example, using hydrogen in energy-intensive processes (metal production, glass production) or in the partial substitution of cement in the production of concrete by developing new input materials, which would allow process-related CO₂ emissions in the production of cement to be at least partially avoided. A specific approach plans to transform the production of soda, a mass-produced product, from a source of CO₂ into a carbon sink by means of a new production process.

The need for reforms described above applies not only to basic industries, but also to small and medium-sized enterprises (SMEs) that generate a large proportion of Germany's economic output. On the one hand, they must find innovative solutions to ensure that their own production processes are climate-efficient and conserve resources. On the other, they are often the drivers of innovation in their sectors as suppliers or service providers. The funds used will enable SMEs to establish themselves with sustainable solutions or to secure and expand their position and competitiveness on global markets. The implementation of these objectives will be supported by a support measure that takes into account SMEs' concerns and needs in the area of resource efficiency and climate action. This measure is designed to be cross-sectoral and is not restricted to any particular aspect. Hence it is available to both the manufacturing and the service sectors. Accordingly, the development of new environmentally friendly products and processes will be supported, as will innovations in the areas of software and services.

Other partners in the transformation of the energy system include local authorities and urban regions. Many metropolitan areas are therefore looking for solutions for a sustainable future in the context of adapting to climate change. The deployed funds will enable cities to promote knowledge creation in relation to concrete options for action and processes, as well as to increase the effectiveness of measures to adapt to climate change.

Component 1.2 Climate-friendly mobility

The second component in the area of climate action relates to the transition to climate-friendly mobility. It takes into account the country-specific recommendations on investments in the ecological transition, particularly sustainable transport, and helps implement the EU flagship initiative *Recharge and refuel*.

Subsidies for the construction of **filling and charging infrastructure** are intended to support the market ramp-up of battery- and hydrogen-based electric vehicles. This requires a comprehensive network of charging infrastructure in line with demand. While

the available charging infrastructure is a key factor in the acceptance of emissions-free vehicles, the **development of electric mobility** and **innovation premium** programmes directly boost demand for these types of passenger cars and close existing gaps in the area of research and development by means of targeted support. This will be complemented by a **reform of vehicle tax** in which a tax exemption for purely electric vehicles and a tax reduction for low-emissions passenger cars will be introduced.

Other measures within this component aim to promote purchases of **buses with alternative drives** and to promote **alternative drives in rail transport**, and also relate to the **replacement of the heavy commercial vehicle fleet**.

Table 4: Component 1.2 Climate-friendly mobility

Title of measure	Volume in € thousand	Climate	Digital	Reform	CSR	EU flagship
Development of electric mobility	75.000	✓			Investment in the ecological transition, particularly sustainable transport	3. Recharge and refuel
National Hydrogen Strategy: Funding for the vehicle and supplier industry for hydrogen and fuel cell applications in transport, a Technology and Innovation Centre for Fuel Cell Technology and the international harmonisation of standards for mobility applications	230.000	✓			Investment in the ecological transition, particularly transport	3. Recharge and refuel
Subsidies for the construction of filling and charging infrastructure	1.015.000	✓			Investment in the ecological transition, particularly sustainable transport	3. Recharge and refuel
Promotion of purchases of buses with alternative drive systems	1.085.000	✓			Investment in the ecological transition, particularly sustainable transport	3. Recharge and refuel
National Hydrogen Strategy: Subsidies to fund alternative drive systems in rail transport	227.000	✓			Investment in the ecological transition, particularly sustainable transport	3. Recharge and refuel
Fleet renewal programme	1.000.000	✓			Investment in the ecological transition, particularly sustainable transport	3. Recharge and refuel
Innovation premium to fund the replacement of vehicle fleets	2.500.000	✓			Investment in the ecological transition, particularly sustainable transport	3. Recharge and refuel
Extension of first registration period for the granting of ten-year tax exemption for purely electric vehicles	295.000	✓		✓	Reform in the area of sustainable transport	3. Recharge and refuel
Tax reduction for passenger cars with particularly low emissions	185.000	✓		✓	Reform in the area of sustainable transport	3. Recharge and refuel

In addition to charging infrastructure and as well as boosting demand for vehicles with alternative drives, the production side will also be strengthened. As part of the National Hydrogen Strategy, support will be provided, within a new holistic approach, for a competitive **supply industry for hydrogen and fuel cell technology** for heavy goods vehicles. In particular, the aim is to enable production of fuel cell stacks and near-series component and vehicle testing in Germany. The new Hydrogen Technology and Innovation Centre (Technologie- und Innovationszentrum Wasserstofftechnologie) that is to be established will focus on the value-added chain of hydrogen and fuel cell technologies for mobility applications, with the aim of ensuring the future viability of the German/European industry. The technical focus of the centre will be on fuel cell systems. In addition, the infrastructural integration with filling station technology and the corresponding interfaces with vehicles and filling systems will also be addressed. The main motivation for establishing a Hydrogen Technology and Innovation Centre is the need for a development, certification and standardisation facility, which, due to the early market phase and the high costs involved, cannot be realised without support from the public sector. The centre will provide in particular small and medium-sized enterprises and start-ups with a development environment, enabling them to position themselves to compete internationally. The Hydrogen Technology and Innovation Centre should also provide further added value in terms of international cooperation for setting standards and corresponding certification processes through prenormative work. The German government has not previously pursued a comparable approach to supporting companies in the field of hydrogen fuel cell systems.

Component 1.3 Climate-friendly renovation and construction

This component is targeted at the climate objective with a focus on the EU flagship *Renovate*.

Within the scope of the **local authority living labs for the energy transition**, local authorities will use ambitious, energy-optimised construction projects as blueprints for a broad building typology. Innovative construction projects will aim to strengthen the part played by local authorities as a role model in climate action and the energy transition, accelerate the rapid transfer of innovations to society and promote broad acceptance. The research and demonstration projects aim to achieve a measurable reduction in the environmental impact and will be used in the testing and dissemination of scientific technological approaches in order to test and demonstrate their practicability. The main target groups are large-scale implementation projects, whereby the involvement of SMEs in particular will be promoted. These reforms are a key element of the EU flagship *Renovate*.

With the **Federal Funding for Energy-Efficient Buildings**, the federal government is reorganising its funding for energy efficiency in buildings in connection with the implementation of the Climate Action Programme 2030 and the funding strategy “Energy Efficiency and Heat from Renewable Energies” (“Energieeffizienz und Wärme aus Erneuerbaren Energien”). The aim is to encourage investments that will improve energy efficiency and increase the share of renewable energies in the end energy consumption of buildings. Funding will be provided for the construction and renovation of residential buildings at “efficiency house” level, whose energy needs and CO₂ emissions will be well below the legal requirements. In particular, funding will be provided for innovative energy-related renovations or new buildings belonging to public companies.

Table 5: Component 1.3 Climate-friendly renovation and construction

Title of measure	Volume in € thousand	Climate	Digital	Reform	CSR	EU flagship
Development of climate-friendly timber construction	70,000	✓	✓		Investment in the ecological transition, particularly housing construction	2. Renovate
Local authority living labs for the energy transition	57,000	✓		✓	Investment in the ecological transition, particularly housing construction	2. Renovate
CO ₂ building renovation: federal funding for energy-efficient buildings	2,500,000	✓	✓	✓	Investment in the ecological transition, particularly housing construction	2. Renovate

Each type of funding will be available in the form of both subsidies and loans. Key elements include: the introduction of “EE” classes (e.g. “efficiency house 55 EE”) for the use of renewable energies; higher rates of funding for efficiency house level EH 40 as a particularly ambitious project; promotion of digitalisation measures to optimise consumption (e.g. Efficiency Smart Home) with a technology-neutral approach. The support schemes for the newly introduced sustainability classes (“NH” classes) will be based on demonstrating certification in the form of the Federal Ministry of the Interior’s “Sustainable Building” certification mark, which is currently being developed. New buildings with the “Sustainable Building” certification mark will receive increased funding as “NH” classes (e.g. “efficiency house 55 NH”). The NH classes do not only take into account the operational phase of buildings; instead, applying the life cycle approach to sustainable building, the focus is also on what are known as “grey” emissions, i.e. greenhouse gas emissions from the production phase including upstream supply chains. The funding guideline will play a key part in reducing greenhouse gas emissions from buildings to 70 million tonnes of CO₂ equivalents by 2030 and thus in achieving both national and European energy and climate targets by 2030.

The forestry and timber industries are facing major structural challenges. Storms and droughts that have been intensified by climate change and associated bark beetle infestations have caused massive damage to forests across Germany. The future viability of the forestry and timber sector is heavily dependent on the development of domestic sales markets for timber. **Climate-friendly timber construction** plays a key role here. The timber construction industry is mainly structured around small and medium-sized enterprises. Given the rapid technological changes taking place, leading to applications in the areas of digitalisation, robotics and artificial intelligence, the accelerated introduction and dissemination of modern technologies is necessary in order to keep companies competitive and ensure adequate economic growth and high levels of employment.

Factors such as material and energy efficiency and the integration of environmental and life cycle assessment data into business processes are becoming increasingly relevant. At the same time, rising demand and the need for complex construction projects present new challenges for companies: as well as technological changes, they require an adjustment of structures and capacities in the traditional timber construction sector. These necessary adjustment processes can be supported by promoting advisory services with the aim of increasing the use of timber as a building material and by establishing and expanding innovation clusters in the timber construction sector. They can also be expected to have positive steering effects with regard to the future challenges of digitalisation, resource efficiency and climate action.



Focus area 2: Digitalisation of the economy and infrastructure

Technological change is advancing relentlessly. In particular, the digitalisation of everyday life and the economy is changing our society and economy at a rapid pace – and not just in terms of communications. The focus is on technological transformation through digitalisation and the associated development of efficient infrastructure. The necessary structural transformation will involve profound changes.

Component 2.1 Data as the raw material of the future

The first component in this focus area is dedicated to the issue of data as the raw material of the future. It addresses the European flagship goals *Connect*, *Modernise* and *Scale-up*.

“Innovative data policy for Germany” reform package

If nothing else, the pandemic has highlighted the importance of the availability and use of relevant, up-to-date data in order to make decisions quickly on the basis of facts. The federal government wants to redefine Germany’s data policy with an ambitious data strategy that spans different policy areas. The strategy aims to promote data-driven innovations and increase the provision and responsible use of data. The federal government’s initiative is also an integrative component of a European vision for the data age. The measures/packages of measures listed below will be implemented as of 2021.

Data infrastructure for high-performance computing (HPC): To create efficient HPC infrastructure in Europe, the existing infrastructure needs to be better connected and expanded. The federal government is developing an “Overall strategy on computing infrastructure” to this end and is supporting in this way European HPC initiatives and development projects. Expansion activities at the various levels will

be interlinked and will be supported by research into the development of hardware and software for future computer systems and applications. Along with the expansion of infrastructure, the strategy aims to develop specific industrial use cases in cooperation with businesses, and to promote the necessary skills in companies.

Data custodians: For the pooling and joint use of specific data, it may be useful to have these services provided by a “data custodian”, which will ensure that the data contributed by various institutions (e.g. companies) are shared securely and fairly. To promote a variety of data custodian models, the federal government has launched an ideas contest and is setting up a funding programme for the development and testing of innovative data custodians. Support will be provided for practical projects, which may be interdisciplinary, that contribute to the concrete design of data custodian models and thereby address the broadest possible range of issues.

Anonymisation and depersonalisation of data: To promote technical data protection, the federal government will set up a research network for anonymisation. As well as conducting research, this network will boost the transfer of research by supporting the public administration and business with issues relating to the anonymisation/depersonalisation of data, thus creating incentives to share data. By pooling skills in a network and establishing a specific research profile, the federal government will strengthen research in this area on a lasting basis and will seek to achieve a prominent international position.

Data skills in science: The federal government will enhance scientists’ skills in the handling of data. As part of this, it is setting up a National Research Data Infrastructure (NFDI). Institutions involved in the NFDI will receive support with the development of e-learning modules that can be used in the training of specialist scientists. After that, model data science laboratories will be set up at sites belonging to the

Table 6: Component 2.1 Data as the raw material of the future

Title of measure	Volume in € thousand	Climate	Digital	Reform	CSR	EU flagship
Innovative data policy for Germany	574,400		✓	✓	Investment in the digital transition, particularly digital infrastructure	5. Modernise
IPCEI microelectronics and communication technologies (Germany-France)	1,500,000		✓		Investment in the digital transition, particularly digital infrastructure, research and innovation	4. Connect
IPCEI cloud and data processing (Germany-France)	750,000		✓		Investment in the digital transition, particularly digital infrastructure, research and innovation	6. Scale-up

NFDI and will act as centres of excellence for data sciences. In addition, the federal government will launch a doctoral programme to develop skills in the field of data sciences and a service that will enable funding to be provided for research projects based on the use of existing research data sets.

Data skills in society: The federal government will provide funding for the creation of a “toolbox” to increase data skills in various areas of application, e.g. for companies and civil society organisations. This toolbox will be developed centrally and then made freely available. This service will be of particular interest to small and medium-sized enterprises, as – unlike large companies – they do not have enough resources of their own to invest in the development of their own data skills. The federal government is also developing specific services for students (data literacy courses) and is pushing for the responsible use and provision of data, and for a shift to a strong open data culture. Intensification of the sharing of data will be accompanied by more efficient control of data protection and cybersecurity.

IPCEI microelectronics and communication technologies

Networks and communications (5G, 6G, OpenRAN) will in future be dominated even more strongly than today by microelectronic components. This includes components such as processors and microchips as well as components for control and data processing, sending and receiving components for fixed data transmission (expansion of fibre-optic broadband) or wireless data transmission (mobile phone reception), and components for self-diagnosis, defence against attacks or artificial intelligence (AI) and HPC hardware. The German and European economies therefore need an

efficient and broad-based microelectronics sector with local patents, development and production.

During the Franco-German technology dialogue with the European Commission, the political will to realise an IPCEI for microelectronics and communication technologies became clear. As well as strengthening those areas of microelectronics in which Europe is in a good position (e.g. power electronics, sensors), the IPCEI will above all aim to catch up in those fields where Europe has so far been dependent on imports from other countries. The intention is to support the development of future innovative network/micro-electronic technologies, based on smaller structures and a combination of functionalities and materials, in Europe up to market maturity, in order to put Europe in a better position in future with respect to the consequences of dependence on global supply chains in the area of communications.

IPCEI cloud and data processing

The IPCEI was looked into during the Franco-German technology dialogue on 13 October 2020 as a measure to increase Europe’s digital sovereignty. The aim is to create the basis for a sovereign, highly scalable edge cloud infrastructure in Europe. The infrastructure will build on highly innovative, real-time-capable structures distributed across Europe and will be operated in a way that is highly efficient and will save energy. This will require extensive R&D activities, including the development and definition of open source technologies. The programme also encompasses investments in a first industrial application. The infrastructure builds on the rules and standards compiled by GAIA-X. Its capability will be demonstrated with the implementation of one or more highly complex use cases. Spain and Italy have already agreed to participate in this IPCEI.

Component 2.2 Digitalisation of the economy

This component is dedicated to the digitalisation of individual economic sectors. It contributes to the EU flagships *Scale-up* and *Reskill and upskill*.

The vehicle industry must deal with two major challenges simultaneously. On the one hand, it must play a significant part in achieving climate targets. This will require a fundamental shift to alternative drive systems, while the use of traditional combustion engines will decline. On the other hand, the industry is being affected by digitalisation on two levels. Vehicles themselves are becoming increasingly digital, from entertainment systems to automated driving on roads and rail. However, production must also become increasingly digital, driven by rising demand for flexibilisation and international cost pressure. Only the widespread introduction of Industry 4.0 will make the sector truly future-proof. The qualification and further training of existing employees will also be of crucial importance for the success of the transformation.

The **programme for vehicle manufacturers/the supplier industry** therefore aims to strengthen and above all to modernise vehicle manufacturers (including the rail industry) and the supplier industry in three areas. In module (a), investments

in new technologies, processes and facilities will be promoted. The focus will be on environmental investments to ensure that production facilities are material- and energy-efficient and on digitalisation/introduction of Industry 4.0 across the board. Module (b) supports research and development for innovations that are relevant to the transformation. Issues covered include automated and connected driving, alternative drive technologies, lightweight energy-optimised design and new materials, new business models and digital ecosystems throughout the entire supply chain. Module (c) promotes new regional innovation clusters, particularly in the supplier industry, which will also supplement the training initiative.

The digitalisation and networking in innovation clusters will not only give rise to new business models, but also new forms of cooperation, particularly in connection with more flexible production facilities.

As a reform, the federal programme “**Development of skills alliances**” aims to increase the participation of SMEs in skills training, thereby enhancing future-proof (especially digital) skills and supporting regional business and innovation networks. In view of the Covid-19 pandemic and the resulting accelerated structural change, particularly in the context of the restructuring of the automotive sector (see component 1.2), significant action is required. The focus

Table 7: Component 2.2 Digitalisation of the economy

Title of measure	Volume in €t	Climate	Digital	Reform	CSR	EU flagship
Investment programme for vehicle manufacturers/supplier industry	1.898.500	✓	✓	✓	Investments in alternative drive systems, digitalisation and automation, particularly research and innovation, education, digital skills	6. Scale-up
Federal programme “Development of skills alliances”	40.000		✓	✓	Investment in education, the digital transition, particularly digital skills, skill levels of disadvantaged groups, conditions for higher wage growth	7. Reskill and upskill
Bundeswehr Digitalisation and Technology Research Centre (DTEC.Bw)	700.000		✓		Investment in the digital transition, particularly research and innovation	
Promotion of digitalisation of the railways through replacement of conventional signal boxes/ fast-track programme to accelerate the roll-out of “Digital Rail Germany”	500.000	✓	✓		Investment in the digital transition, particularly sustainable transport; bringing forward public investments	

of funding is on the establishment and expansion of binding cooperation and networking structures between companies, educational institutions and advisory services and all other major players across the training landscape. The concrete task of this programme is to identify training needs, provide information and advice, and support the development of new training content, especially with regard to digital and AI skills. The programme's orientation is sector-specific and regional, in order to implement individual and tailor-made solutions for companies, or also cross-sector, to help ensure that employees whose employment profiles will be replaced in the future can obtain qualifications for other job profiles.

The federal programme is a key commitment in the National Skills Strategy (as the domestic pillar of the Skilled Labour Strategy (Fachkräftestrategie)). It pursues the aim of reforming, systematising and strengthening a skills policy that supports lifelong learning and focuses on qualification and competence development and the long-term safeguarding of employability. It is also linked to EU flagship 7: *Reskill and upskill* – the adaptation of education systems to support digital skills and educational and vocational training for all ages.

The **Bundeswehr Digitalisation and Technology Research Centre** (DTEC.Bw) is a scientific centre supported by the two Bundeswehr universities and is based at the Bundeswehr University Munich (UniBw). It is subject to the law on academic self-administration and conducts university research. By tapping the innovation potential of the Bundeswehr Universities, the aim is to improve the national availability of digital and technological innovations for the public and private sectors and further extend Germany's digital sovereignty through innovative and interdisciplinary research in a secure environment. The centre thus acts as a driving force for academic research into digitalisation and technology by the Bundeswehr and at the same time paves the way for increasing the national availability of digital and technological innovations for the public and private sectors as a whole.

Investments in digital signalling technology are being brought forward to this year in order to help the economy by securing jobs and supporting companies in the railway sector. Under the digitalisation programme involving the replacement of conventional signal boxes/fast-track programme to accelerate the roll-out of "Digital Rail Germany", the introduction of **digitalisation in the rail sector** is being accelerated. In this context, existing signal boxes and level crossing protection systems will be replaced, old installations will be replaced by safety systems of the latest digital generation and compatibility with subsequent ETCS expansions will be enabled through uniform system interfaces.



Focus area 3: Digitalisation of education

Education is of high importance for long-term potential growth and wealth creation. The Covid-19 crisis has revealed, not for the first time, that Germany is facing considerable challenges in the field of digital literacy in particular.

Component 3.1 Digitalisation of education

The **digital education initiative**, which aims to better exploit the opportunities and potential that digitalisation offers individuals and society, forms the core of this component. In this respect, this component is closely linked to the component of digitalisation in the public administration. The initiative will create the necessary digital infrastructure, expand digital teaching, learning and communication facilities, and

establish digital innovations in the education system, to strengthen teachers' and pupils' digital skills and create equal educational opportunities with a view to improving social inclusion (component 4.1). Otherwise, there is a risk that reduced access to education could diminish young people's skills development and hamper their future success on the labour market, particularly in the case of those from educationally disadvantaged backgrounds.

With the gradual development of a national **education platform**, we want to create a space for all areas of education in which data are protected and quality is assured. The platform will provide guidance and comprehensive access to teaching/learning services on an individual basis, ensuring informational self-determination.

Table 8: Component 3.1 Digitalisation of education

Title of measure	Volume in € thousand	Climate	Digital	Reform	CSR	EU flagship
Teacher devices	500,000		✓		Investment in the digital transition, particularly education and digital skills; conditions for higher wage growth	7. Reskill and upskill
Education platform (in conjunction with the digital teaching space)	630,000		✓	✓	Investment in the digital transition, particularly education and digital skills; conditions for higher wage growth	7. Reskill and upskill
Educational centres of excellence	205,000		✓	✓	Investment in the digital transition, particularly education and digital skills; conditions for higher wage growth	7. Reskill and upskill
Modernisation of the Bundeswehr's educational and training facilities	100,000		✓		Investment in the digital transition, particularly education and digital skills; conditions for higher wage growth	7. Reskill and upskill

In-service teacher training in the area of digital literacy is the key to promoting digital and digitally supported teaching. The joint initiative of the federal government and the Länder for the creation of **centres of excellence for digital and digitally supported teaching** (“Digital in-service teacher training”) aims to strengthen digital teaching and learning. Among other points, better interlinking of the activities of universities, non-university research institutions and institutions for in-service teacher training is planned. A key issues paper on “Digital in-service teacher training” will be agreed between the federal government and the Länder by early January 2021. The first invitation to tender will be issued in 2021.

The **special equipment programme for digital devices** (“Sonderausstattungsprogramm für digitale Endgeräte”) for teachers supports the Länder with the expansion of digital teaching, learning and communication facilities in schools. The provision of mobile devices is intended to support teachers with the preparation and follow-up of lessons and with the implementation of digital teaching formats, irrespective of whether teaching takes place in schools or as distance learning. The applicable administrative agreement between the federal government and the Länder will enter into force by the end of 2020. The special equipment programme for digital devices for teachers is complemented by a special equipment programme for pupils in need and a programme to support IT administrators in the amount of €500 million respectively in federal funding and at least €50 million in additional Länder funding in each case; the agreements between the federal government and the Länder are already in force in the case of the two supporting programmes.

The **modernisation of the Bundeswehr’s educational and training facilities** as a component of the Federal Ministry of Defence’s resilience programme is aimed in particular at the digitalisation of educational establishments and should be seen in the overarching context of the federal government’s “Shaping Digitalisation” implementation strategy. The focus is on measures relating to the virtualisation of learning environments and digital learning content, smart digital training and the smart campus, the development of connected operations at educational establishments and the strengthening of training networks.



Focus area 4: Strengthening of social inclusion

An effective community is the hallmark of a resilient economy and society. In addition, many social groups need additional support especially during the Covid-19 pandemic. For this reason, one focus of the GRRP is strengthening social resilience with measures for labour market participation and for appropriate wages and pensions.

Component 4.1 Strengthening of social inclusion

The reforms in this component aim to improve conditions for participation in the labour market, to promote wage growth in line with productivity gains, and to ensure that the pension system is sustainable while simultaneously safeguarding adequate pensions. As a result, the component enhances social inclusion and contributes to three flagship initiatives: *Renovate*, *Modernise* and *Reskill and upskill*.

With the investment programme “**Childcare financing**” 2020–2021, the federal government provides grants to Länder and local authorities for investment in day-care facilities and day care for children from birth to school entry. Investments will be made in new buildings, extensions, conversions, refurbishments, renovations and equipment; this measure therefore also relates to the EU flagship *Renovate*. Investments that will be used to create or provide equipment for additional childcare places will be promoted. This investment measure therefore also takes into account the country-specific recommendations on investments in education. Being able to attend a day-care centre particularly benefits socially disadvantaged children and strengthens their skill levels. The availability of childcare facilities is essential in order to create the conditions to enable parents, especially single mothers, to participate in the labour market and/or increase their working

hours. This not only boosts their wage income, but also secures a pension income for this demographic group in the long term, thereby helping to ensure that the pension system is sustainable by increasing overall participation in the labour market. Finally, this measure also aims to ensure greater gender equality in society.

The Covid-19 pandemic is presenting the social security system with challenges, both on the revenue and on the expenditure sides. To prevent this from leading to a rise in non-wage labour costs, social security contributions will be stabilised at a maximum of 40 % in the **Social Guarantee 2021**. This stabilisation will avoid additional burdens, in particular for low and medium incomes, and prevent disincentives to work more hours.

The measure “**Securing training places**” provides financial support for SMEs that take on trainees and that maintain their current level of training, create additional training places, avoid short-time working (*Kurzarbeit*) for trainees, or take on trainees from companies that have become insolvent. Trainees who temporarily cannot continue their training at the company will get the opportunity to receive transitional funded in-house collaborative training (*Verbundausbildung*) or contract training (*Auftragsausbildung*). This measure will help to prevent the risk of a “coronavirus generation” on the labour market and directly addresses EU flagship 7, *Reskill and upskill*, which promotes high-quality employment opportunities and adequate numbers of trainee positions for young people entering the labour market, and strengthens vocational training. The measure represents a reform in the area of education and labour market policy that will help to cushion the social and economic effects of the pandemic, promote the right conditions for high wage growth and secure a supply of skilled workers.

Table 9: Component 4.1 Strengthening of social inclusion

Title of measure	Volume in € thousand	Climate	Digital	Reform	CSR	EU flagship
Special fund "Child day-care expansion" – Investment programme "Childcare-financing" 2020/21	500,000			✓	Investment in education, skill levels of disadvantaged groups, reducing disincentives to work more hours; indirectly: long-term sustainability of the pension system	2. Renovate
Social Guarantee 2021				✓	Avoiding burdens on the labour factor, reducing disincentives to work more hours	
Trainee support	850,000			✓	Educational outcomes of disadvantaged groups; conditions for higher wage growth	7. Reskill and upskill
Digital pensions overview	34,300		✓	✓	Long-term sustainability of the pension system, digital administrative service	5. Modernise

The digital pensions overview is intended to enable citizens to obtain information about their individual pension provision from all three pillars (statutory, company and private pensions) and to identify any action they need to take. Everything should be visible at a glance and digitally accessible via a portal, where individual information on the achieved and achievable pension entitlements is compiled from the status reports of pension institutions in a clear and user-friendly manner, supplemented by a general overview. In order to help citizens plan their pensions, it is very useful for entitlements to be presented in a transparent fashion, not least so that citizens can make rational decisions about their employment and about making additional provisions if necessary. This can strengthen trust in a functioning community and a pension system that meets demand, and ultimately it also helps to ensure that the system is sustainable.

Finally, it should be emphasised that the measures listed here represent only a small selection of the federal government's comprehensive measures relating to social and labour market policy. In accordance with the current ministry draft of the **Second Management Positions Act** (Zweites Führungspositionen-Gesetz), the management board of a listed company that is subject to equal co-determination must in future include at least one woman if it has more than three members. In the case of companies where the Federation has a majority holding, the management body will already be required to have at least one woman if it consists of more than two persons. In addition, the 30% minimum quota for women and men on supervisory boards of listed companies that are subject to equal co-determination, which has been mandatory since 2015, will also be extended to companies where the Federation has a majority holding.

Companies and employees can continue to count on the **short-time work benefit from the Federal Employment Agency** during the Covid-19 crisis, after the period of entitlement to this benefit, and measures to facilitate access to it that apply during the crisis, were largely extended until the end of 2021. These arrangements aim to ensure long-term planning certainty and to provide a bridge to 2022. This also includes the fact that the Federal Employment Agency, for the purpose of providing relief to employers, will completely reimburse the social security contributions which must be borne by employers alone while employees are receiving the short-time work benefit until 30 June 2021. For companies that have introduced short-time work by that point, the Federal Employment Agency will thereafter reimburse half of the contributions until 31 December 2021 at a flat rate. The federal government will support the Federal Employment Agency with interest-free loans. In 2021, the federal government expects to support the Federal Employment Agency with a loan waiver and a federal subsidy (€3.35 billion). These measures will safeguard the Federal Employment Agency's ability to function and make payments in 2020 and 2021. In this way, it is ensured that the Federal Employment Agency, as a key stakeholder, can mitigate the impact of the crisis on the labour market and at the same time support structural change.

The bonus for families with children, which provides parents with a one-off payment of €300 per child, is a measure intended to complement support for the income base. The tax credit for single parents will also more than double. Fast and rather un-bureaucratic assistance to prevent hardship that threatens people's very existence should also be mentioned in this context. To this end, the conditions for **access to basic income support** were significantly relaxed on a temporary basis: for a period of six months, means-testing is generally suspended and accommodation costs are recognised without an appropriateness check.

In order to have social resilience and an effective community, the **basis for taxation must also remain stable and sustainable**. Tax avoidance strategies must therefore be prevented through international agreements. This is the only way to ensure that the welfare state remains efficient and that the tax and social contributions ratio can be stabilised at a sustainable level.



Focus area 5: Strengthening of a pandemic-resilient healthcare system

Although Germany has so far proved better than average at cushioning the effects of the pandemic on the healthcare sector, it has become clear that action is needed in areas of the public health service that are relevant to the pandemic and with regard to digitalisation in the healthcare system. In particular, the faster that the means to directly fight the pandemic become available, the sooner social and economic activities can return to normal.

Component 5.1 Strengthening of a pandemic-resilient healthcare system

This component follows the country-specific recommendation to effectively address the pandemic and strengthen the resilience of the health system, including by deploying e-Health services, and contributes to the EU flagship *Modernise*.

The support for the **accelerated research and development of urgently needed vaccines** against Covid-19 is aimed at shortening the duration of the pandemic. In particular, project funding for the accelerated development of vaccines will be used to support the implementation of clinical trials in Germany and an increase in manufacturing capacity.

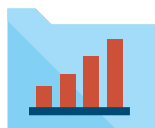
The **public health service** – not least with a view to the current Covid-19 pandemic – will receive support with digital expansion through the use of electronic services, particularly in the area of infection control. This will improve the long-term resilience of the public health service as an important pillar of the healthcare system in Germany. The rapid expansion of digitalisation in local health authorities could be used to structure processes and reporting channels more efficiently. Improved and targeted use of digital technologies and the boosting of human and technical resources will help to curb further increases in the numbers of infections over the course of the pandemic.

Table 10: Component 5.1 Strengthening of a pandemic-resilient healthcare system

Title of measure	Volume in € thousand	Climate	Digital	Reform	CSR	EU flagship
Strengthening the digital and technical resources of the public health service	813,900		✓	✓	Resilience of the healthcare system, electronic health services	5. Modernise
Programme to future-proof hospitals	3,000,000		✓		Resilience of the healthcare system, electronic health services	5. Modernise
Special programme for acceleration of research and development of urgently needed vaccines against Covid-19	750,000				Combat the pandemic effectively, investment in research and innovation	

The Pact for the Public Health Service (Pakt für den öffentlichen Gesundheitsdienst) includes an increase in staffing levels and the enhancement of the public health service's technical resources. A key component of the pact is the full deployment and expansion of the German Electronic Reporting and Information System for Infection Control (DEMIS). DEMIS will be made available to all health authorities by the end of 2022. A crucial aim is to ensure that information systems are consistently interoperable across all levels and to develop standardised systems and tools and make them available.

The **programme to future-proof hospitals** aims to fund the necessary investments in modern emergency capacity and better digital infrastructure and to strengthen investments in development and regional care structures. A total of €3 billion from the federal budget will be made available for this purpose. Co-financing by the Länder and the bodies responsible for operating the hospitals in the amount of €1.3 billion is planned.



Focus area 6: Modern public administration and reducing barriers to investment

It will not be possible to implement reforms without an efficient public administration that is capable of effective action and simultaneously reduces administrative barriers to forward-looking investments. The Covid-19 crisis has highlighted, not for the first time, that there is considerable catching-up to do in this area. Effective regulation that encourages innovation is also key to ensuring that reforms are implemented as smoothly as possible.

Component 6.1 Modern public administration

Increased digitalisation of the public administration and an expansion of e-government services can improve the productivity of the public sector and stimulate demand for digital services. Improving digital public services across all levels is therefore also an important country-specific recommendation for Germany. The modernisation of digital public services and identification services is also an aim of the *Modernise* flagship, which this component is dedicated to.

A key current focus area for action involves enabling identities to be established on the Web without assistance from the major platforms and ensuring that citizens can be provided with forgery-proof digital verification in future. This requires an open **identity ecosystem** that is not subject to approval and that allows secure issuing, transfer and storage and self-determined forwarding and use of verification.

The **European identity ecosystem** – an open identity infrastructure that is not subject to approval – is intended to enable identities to be established on the Web without assistance from the major platforms and to provide citizens with forgery-proof digital verification in future. The identity ecosystem does not compromise the sovereignty of nation states with regard to the issuing of (identification) documents, nor does it attempt to unify existing standards. Rather, the aim is to provide a digital identity on shared infrastructure at the same time as issuing analogue documents. The ecosystem will be open to all kinds of applications, including economic applications, and will also be designed to enable the exchange of proof of identity of companies and things.

Table 11: Component 6.1 Modern public administration

Title of measure	Volume in € thousand	Climate	Digital	Reform	CSR	EU flagship
European identity ecosystem	200,000		✓	✓	Investment in the digital transition, digital administrative services	5. Modernise
Digitalisation of administration – implementation of the Online Access Act	3,000,000		✓	✓	Digital administrative services	5. Modernise
Digitalisation of administration – implementation of the modernisation of registers (Register Modernisation Act (Registermodernisierungsgesetz), RegMoG)	275,000		✓	✓	Digital administrative services	5. Modernise

The **Online Access Act** promotes the creation of a nationwide digital administrative service in Germany by 2022. In particular, the aim is to digitalise 575 administrative services in a way that is user-friendly and legally sound. As many local authorities as possible will be connected to the online services, which have been developed and implemented in one place based on the “one for all” model. The user-friendliness of the digital services is the guiding principle. The digitalisation programme, which includes platform systems and digital basic components/services, also contains a specific federal component.

This is closely linked to the implementation of the **modernisation of registers**. A user-friendly digital administrative service requires reliable, interlinked register data, for example through the introduction of the tax identification number as a cross-register identification number. The registers are managed on a decentralised basis in Germany, i.e. on-site at the individual local authorities. Often they are not linked to each other in a way that would allow existing data to be used for other administrative procedures. To ensure that this is possible in future, the quality of the German registers will be improved and they will be linked to each other nationwide through a cross-register identification management system and an authority and data communication system that are relevant to the implementation of the Online Access Act and the Europe-wide once-only principle.

Component 6.2 Reducing barriers to investment

Investment – both public and private – is a decisive factor for future economic growth, and in some cases involves committing financial resources for a long period of time. For this reason, it is necessary to enable a forward-looking investment planning at an early stage as many investment projects only have their intended impact at a later stage. Targeted reforms are intended to facilitate and accelerate the disbursement of public funding that has been made available, supporting both public and private investment activities in a meaningful way.

In 2009 Germany had set up the institution **Partnerschaft Deutschland** (PD), which aims at providing local authorities in particular with targeted assistance in planning and implementing investment projects as well as administrative modernisation projects. Within the context of a government-funded research project called “Investment consulting for life cycle and outcome-based procurement”, PD is providing a large number of public institutions with targeted advice on how to plan, design and implement investment projects. As part of this research project, PD has identified key objectives for the ongoing assistance it offers.

These objectives include the following: (a) providing expertise in the early stages of planning projects and construction projects to facilitate the effective preparation of investments, (b) expediting and streamlining planning and construction procedures, (c) supporting investment decisions through the use of models, templates, process structures, training and other practical guides, and (d) capacity-building in the public administration, including a special focus on streamlined decision-making channels between the working level and management.

PD’s approach – to provide targeted, specialised assistance to public officials who are directly responsible for implementing investment projects – is capable of being expanded to additional areas. For example, it could be assessed whether the PD’s approach is suitable for the purpose of (a) promoting local authority cooperation (i.e. cooperation between multiple local authorities, including municipal enterprises) in implementing investment projects, (b) identifying potential legal obstacles in this connection, (c) helping

Table 12: Component 6.2 Reducing barriers to investment

Title of measure	Volume in € thousand	Climate	Digital	Reform	CSR	EU flagship
“Partnerschaft Deutschland”	—			✓	Reducing barriers to public and private investment activity	5. Modernise
Joint programme of the federal government and the Länder for an efficient administration that benefits citizens and businesses	—			✓	Reducing barriers to public and private investment activity	5. Modernise
Investment Acceleration Act	—			✓	Reducing barriers to public and private investment activity	

the Länder to design and establish similar public-private institutions at the regional level, (d) expanding the scope of the above-mentioned research project to include the identification of investment barriers, along with proposals and strategies for eliminating such barriers, and (e) expanding e-learning opportunities to promote knowledge-building and capacity-building among administrative authorities.

In order to maximise the efficiency of interactions between public and private actors, it is crucial to remove administrative obstacles wherever possible in order to reduce the costs that companies incur due to red tape. Removing administrative obstacles also enhances the efficiency of public administrations. With these objectives in mind, the federal and Länder governments adopted a joint **“Programme for an efficient public administration that benefits citizens and businesses”** on 2 December 2020.

One of the programme’s main priorities is to simplify and expedite administrative procedures, such as the procedures involved in implementing funding programmes. The programme also provides for targeted measures to recruit and increase staffing, in order to speed up planning and approval decisions. It might also be useful to monitor the implementation of the programme and earlier decisions that have been taken (e.g. the possible formation of expert teams; the deployment of planning experts and environmental law experts to public authorities; the introduction of a positive planning culture; the intensified use of digital technology) by conducting quantitative evaluations at regular intervals, for example in the form of an annual progress report.

On 5 November 2020, the German government adopted the **Investment Acceleration Act** (Gesetz zur Beschleunigung von Investitionen, short title Investitionsbeschleunigungsgesetz), which is intended specifically to strengthen, and to ensure the up-to-date design of, entrepreneurial conditions in investment projects. The Act aims to reduce compliance costs that businesses and administrative authorities incur in connection with planning and approval procedures. Key elements here include: establishing the option for taking immediate action on infrastructure projects with transregional significance; simplifying territorial impact assessments for infrastructure projects; and waiving planning approval procedures as a prerequisite for the approval of certain railway infrastructure projects. In addition, the Act shortens administrative court proceedings by shifting first-instance jurisdiction for planning approval procedures in connection with infrastructure projects (such as regional road construction, port projects and wind turbines) from administrative courts to higher administrative courts.

The background features abstract geometric shapes in two shades of blue. In the top-left corner, there are overlapping triangular and quadrilateral shapes. At the bottom, a large semi-circle is divided vertically by a thin white line, with the left half in a darker blue and the right half in a lighter blue. The main text is positioned in the white triangular area on the right side of the page.

6. Institutional governance of the German Recovery and Resilience Plan

The further implementation of the Draft German Recovery and Resilience Plan at the European level is subject to a general agreement on the Multiannual Financial Framework and the EU recovery instrument Next Generation EU. In addition, the draft is geared towards the application requirements of the Council position on the Recovery and Resilience Facility and may need to be adapted once a final agreement has been reached with the European Parliament. The draft forms the basis for a consultation with the European Commission, including on the still-to-be-defined goals and milestones for the individual measures, with the aim of finalising the GRRP in connection with the National Reform Programme in April 2021 with a view to the final adopted regulation on the RRF, and sending it to the European Commission.

The Federal Ministry of Finance coordinates the application for RRF funds and the use of these funds and, as the authority responsible for the overall process, is the point of contact for EU institutions. The process is coordinating closely with the Federal Chancellery, the responsible line ministries and the German Bundestag. The involvement of major stakeholders is reflected in the setting of priorities and in specific projects and reforms under the recovery plan. It is planned in principle to submit a biannual report on the implementation status of the GRRP in connection with the Draft Budgetary Plan and the National Reform Programme (NRP).

In a federal context, the German Länder are key players and multipliers in the preparation of the GRRP and are therefore involved in the preparation of the draft of the GRRP at an early stage. An ordinary referral on this took place at the conference of the ministers of finance, together with a first debate on the NRP. In addition, the Bundesrat is involved later in the process, if possible – but not necessarily – in conjunction with the review of the NRP, before the GRRP is submitted to the European Commission for evaluation and to the Council for approval. For

projects that directly affect the competences of the Länder within the allocation of responsibilities among the various government levels in Germany, close technical coordination with the Länder is imperative when it comes to both the development and implementation of projects. The federal government therefore plays a coordinating role within the national context.

The social partners are important points of contact for the federal government with regard to framework conditions and investments that secure jobs. Hence the social partners, in particular, were involved in drawing up the GRRP, in accordance with the European Commission's recommendation in its 2021 Annual Sustainable Growth Strategy. The federal government consults the social partners during the preparation of the annual economic report, including with respect to the NRP. GRRP measures may also be discussed in future consultations, among other things. The National Productivity Board (Nationaler Produktivitätsausschuss) will be asked for an (ex ante/ ex post) assessment.

The Federal Ministry of Finance, the Federal Ministry of Labour and Social Affairs, the Federal Ministry for Economic Affairs and Energy, and the Federal Chancellery, together with the German Bundesbank, hold discussions at the national level with the social partners (represented by the BDA, BDI, DGB and ver.di) on current issues of economic and fiscal policy, and discuss productivity trends with the National Productivity Board. During the Macroeconomic Dialogue on 24 November 2020, the focus of the GRRP was discussed with the social partners and the chair of the National Productivity Board.

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