



STEP

Strategic Technologies for Europe Platform

**Brochure for STEP National Contact Points and Managing Authorities
concerning certain provisions of Regulation (EU) 2024/795 establishing
the Strategic Technologies for Europe Platform (STEP)**

Version 2 – December 2024

Budget

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The purpose of this indicative brochure drafted by the services of DG BUDG of the European Commission is to present practical elements on certain provisions of the STEP Regulation to facilitate its implementation at national level. While the document occasionally paraphrases the provisions of EU legislation, it is not meant to add to or diminish the rights and obligations set out in the STEP Regulation.

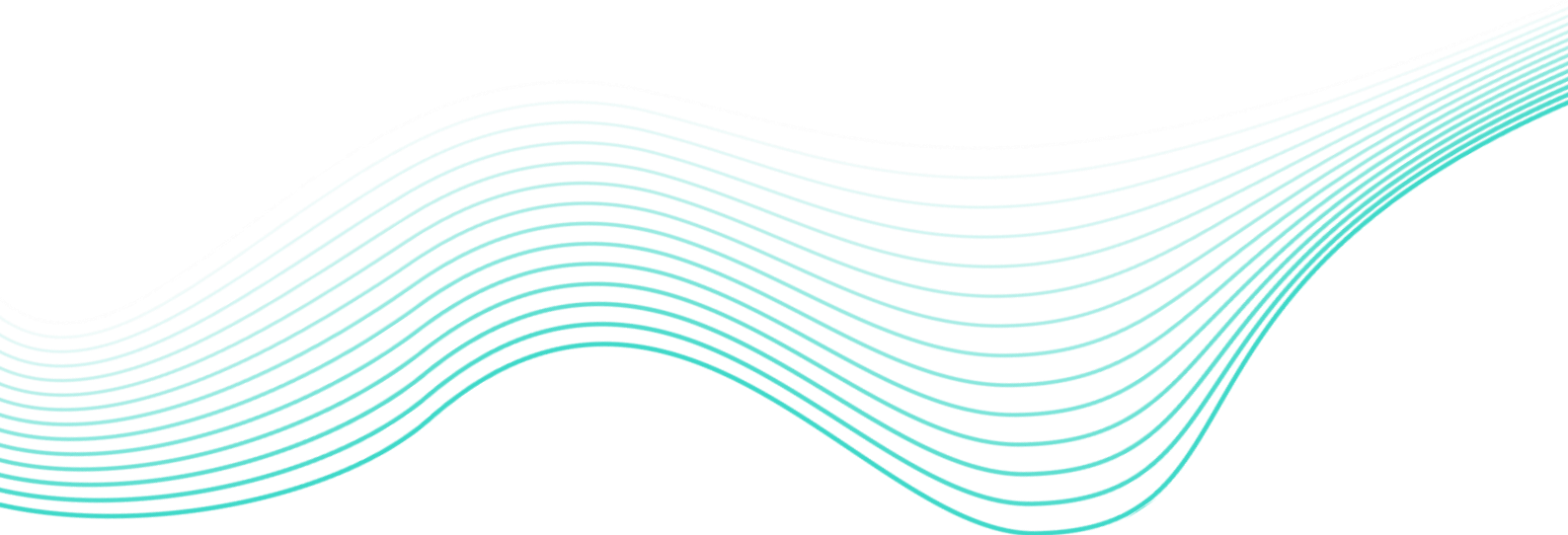
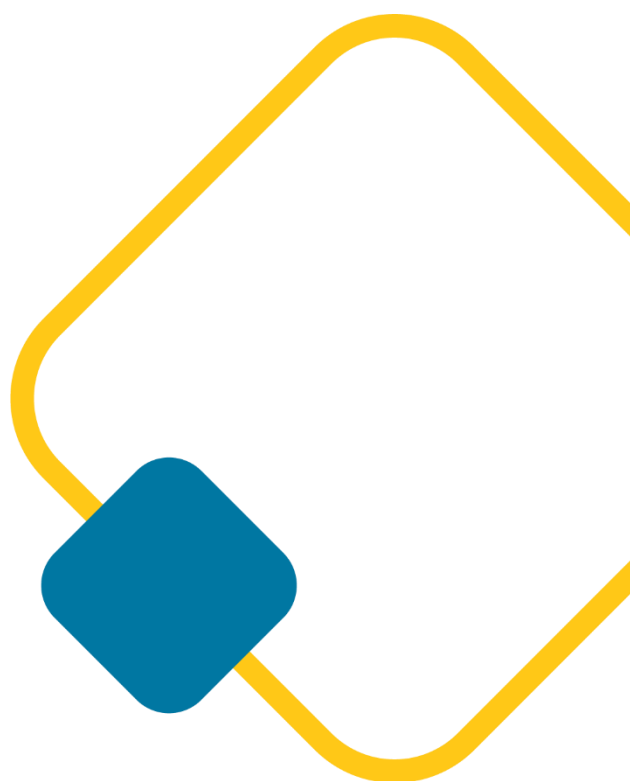


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Introduction

On 1 March 2024, the Regulation establishing the Strategic Technologies for Europe Platform (STEP) entered into force. The aim of STEP is to support the development and manufacturing of critical technologies in three areas (i.e. digital technologies and deep –tech innovation, clean and resource efficient technologies, and biotechnologies). STEP also supports investments aimed at strengthening industrial development and reinforcing value chains, thereby reducing the EU’s strategic dependencies, strengthening European economic security, and addressing labour and skills shortages in those strategic sectors.

Eleven EU programmes/funds are contributing to STEP: the Digital Europe Programme (DEP), the European Defence Fund (EDF), EU4Health, Horizon Europe (HE), the Innovation Fund (IF), InvestEU, the Recovery and Resilience Facility, as well as the Cohesion Fund, the European Regional Development Fund (ERDF), the European Social Fund+ (ESF+), and the Just Transition Fund (JTF).

The European Commission has issued a Communication on the Guidance Note concerning certain provisions of Regulation (EU) 2024/795 establishing the Strategic Technologies for Europe Platform (STEP)¹ on 08.05.2024. The note is available in all EU languages, and is a useful resource clarifying in particular:

- The indicative list of technologies considered as relevant for STEP;
- Criteria to assess the alignment with STEP objectives and conditions;
- The definition of associated services

This brochure is meant to complement existing resources such as the Guidance Note on the scope of STEP, in order to help Managing Authorities and STEP National Contact Points in the implementation of STEP at national level.

The brochure is structured as follows:

- **Section 1** highlights the main features of the STEP Seal;
- **Section 2** focuses on the implications of STEP under cohesion policy funds;
- **Section 3** outlines the implications of STEP under RRF, including the InvestEU Member State Compartment;
- **Section 4** clarifies the State aid rules applicable for projects with a STEP Seal.

For specific questions, you can contact the STEP Task Force of the European Commission by email at EC-STEP-PARTNERS@ec.europa.eu

¹ Available at: https://strategic-technologies.europa.eu/document/download/e204ce9e-0407-4f03-82f8-6f518ce12886_en?filename=C_2024_3148_F1_COMMUNICATION_FROM_COMMISSION_EN_V6_P1_3408774.PDF



1 The STEP Seal

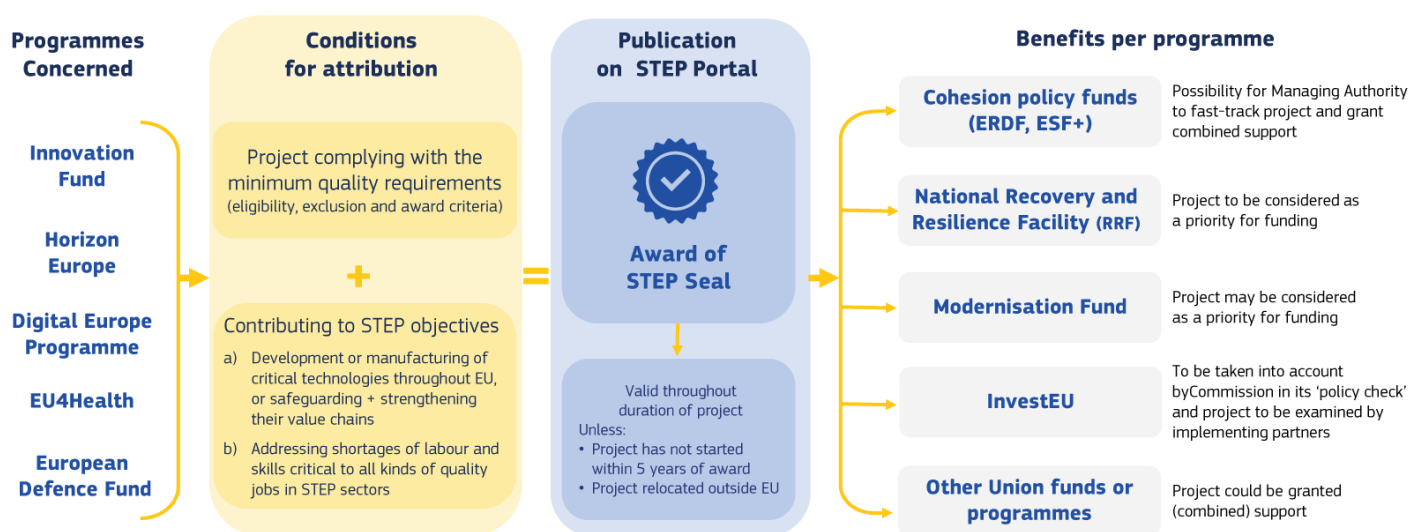
The STEP Seal is a label, which aims to increase the visibility of quality projects available for funding.

It can be awarded **only** by the Commission through dedicated STEP calls published under five programmes directly managed by the European Commission: the Innovation Fund, Horizon Europe, the Digital Europe Programme, EU4Health and the European Defence Fund.

STEP Seals are automatically awarded to projects submitted to a call for proposals of one of these programmes if they comply both with the minimum quality requirements of the call (eligibility, exclusion, and award criteria) and contribute to STEP objectives.

Projects that have received STEP Seals will be published on the STEP Portal², which is maintained and updated by the European Commission. They will also be regularly communicated to STEP National Contact Points. The STEP Seal is valid throughout the duration of the project, unless the latter has not started within five years of the award, or it relocates outside the EU.

STEP Seal in a nutshell



² Available at: https://strategic-technologies.europa.eu/index_en



The STEP Seal aims to attract alternative and cumulative funding for quality projects, and simultaneously to provide a potential project pipeline for regional and national programmes. Particularly relevant are the following options:

- Under **two of the cohesion policy funds (ERDF, ESF+)**, managing authorities can directly award support to projects that received STEP Seals, provided these projects comply with the programme, are consistent with the relevant strategies, provide an effective contribution to the achievement of the specific objectives of the programme, ensure that selected operations which fall within the scope of an enabling condition are consistent with the corresponding strategies, and are aligned with the scope of the corresponding funds (as per Article 73(4) of the Common Provisions Regulation (CPR)).

Support to STEP Seal holder projects can also be granted through the **Just Transition Fund (JTF)** and **the Cohesion Fund (CF)** – but these funds are not covered in the direct award possibilities of Article 73.

- Under the **Recovery and Resilience Facility (RRF)**, projects awarded STEP Seals should be considered as a priority for alternative or cumulative funding when national Recovery and Resilience Plans (RRPs) are revised.
- Under the **Modernisation Fund**, awarded projects may be considered as a priority for funding.



2 STEP under cohesion policy funds

2.1 Specific objectives and programme amendments

The STEP Regulation establishes a new specific objective for STEP under Policy Objective 1 (Smarter Europe) for all STEP sectors (Specific Objective (SO) 1.6, only under ERDF) and a new specific objective under Policy Objective 2 (Greener Europe) for clean tech sector only (SO 2.9 under ERDF and the Cohesion Fund). Support may be programmed under any of relevant PO4 specific objectives under ESF+ and under the JTF SO.

Support for productive investment in enterprises other than SMEs (including large enterprises), under Article 5.2(e) ERDF, is eligible for STEP priorities under ERDF only in less developed/transition regions and more developed regions in Member States with GDP/capita below the EU-27 average³. Such support is also available under the JTF, in line with fund-specific rules.

Reprogramming toward STEP priorities follows the standard programme amendment process for ERDF, the Cohesion Fund, the Just Transition Fund and ESF+. Managing authorities are encouraged to discuss and pre-agree the scope of a programme amendment with the Commission before the official submission of their amendment request. Creating a STEP dedicated priority is necessary for benefiting from the financial incentives envisaged in the STEP Regulation, such as increased co-financing and additional pre-financing⁴, but it is otherwise not mandatory, as STEP investments can also be implemented without amendment under an existing priority, if it falls under its scope.

All operations funded under STEP-related specific objectives must comply with the STEP objectives. This includes, inter alia, an assessment of compliance with the STEP objectives and conditions during the selection of operations.

2.2 Deadlines

For dedicated STEP priorities under the ERDF and the Cohesion Fund to benefit of a one-off 30% pre-financing, managing authorities must submit their programme amendment request by 31 March 2025⁵.

For STEP dedicated priorities to be excluded from the mid-term review, the request for amendment of a programme had to be submitted by 31 August 2024. Member States may fully allocate the flexibility amounts to STEP dedicated priorities in the context of this amendment. In such cases, the whole programme is exempted from the mid-term review.

Moreover, dedicated STEP priorities under ERDF, CF, JTF, and ESF+ can benefit of 100% EU co-financing regardless of when the programme amendment request is submitted.

The services of the European Commission (DG REGIO, DG EMPL and DG BUDG) organised a dedicated STEP Q&A Webinar in April 2024, where relevant interpretation questions have been answered in detail. Please consult the recording of the Webinar and the dedicated slides for more details⁶.

³ BG, CZ, EE, EL, ES, HR, IT, CY, LV, LT, HU, MT, PL, PT, RO, SI, SK

⁴ For the JTF, an exceptional 30% pre-financing was automatically paid to all priorities following the STEP Regulation coming into force

⁵ For the JTF, such pre-financing was already paid – as explained in footnote

⁶ Presentation and recording available at: https://ec.europa.eu/regional_policy/2021-2027/technical-seminars/step_en



3 STEP under the RRF

For official guidance on the reprogramming of national Recovery and Resilience Plans (RRPs), please refer to the [Guidance on recovery and resilience plans](#) as amended on 31 May 2024.

3.1 Building a project pipeline

As per the [STEP Regulation](#), when revising their RRP, Member States shall consider as a priority projects that have been awarded the STEP Seal. STEP National Contact Points, designated by Member States as per Article 6 of the STEP Regulation, will receive from the European Commission information on projects that have been awarded a Seal, and the list of STEP Seals' holders will also be available on the [STEP Portal](#).

Dedicated STEP calls may also be launched under the RRF, including for projects without STEP Seals. Prior to launching any calls for proposals or tendering procedures related to STEP objectives, Member States should communicate the information to their European Commission counterparts for publication on the STEP Portal, in accordance with the Article 19 of the STEP Regulation.

3.2 InvestEU Member State Compartment

Member States can amend their RRP to allocate an additional amount of up to 6% of their RRF allocations as cash contribution exclusively to STEP priorities via the [InvestEU Member State Compartment](#). Concretely, Member States can either (i) redesign existing measures that already contribute to STEP objectives in such a way that they can be channelled via InvestEU (i.e. convert them into financial products), or (ii) remove existing measures and use the freed-up resources to support new STEP measures in their RRP via InvestEU.

In case of interest in transferring funds to the InvestEU Member State Compartment, Member States should introduce their request for an RRP amendment as soon as possible in view of completing all the necessary steps (signature of Contribution Agreement and Guarantee Agreement, and approval of operations by the InvestEU Committee) by August 2026.

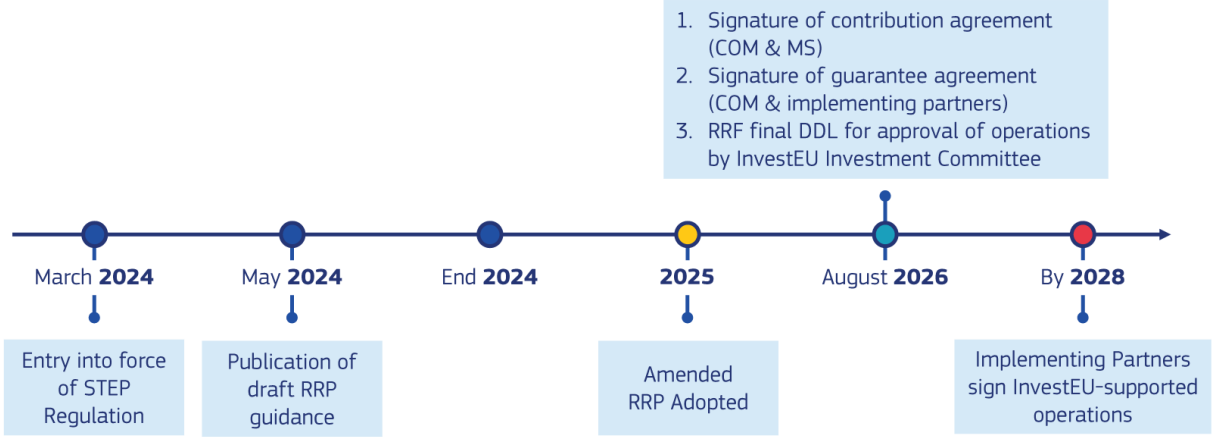
Considering the time constraints under the RRF, Member States are encouraged to start discussions with the relevant Implementing Partner and the Commission as early as possible. Moreover, the use of existing InvestEU products, particularly those implemented by the EIB Group under the EU Compartment, is highly recommended for such transfers because of time efficiency and lighter state aid procedures⁷.

⁷ When a Member State transfers funds to the InvestEU Member State Compartment to 'top-up' existing InvestEU financial products to be implemented in indirect management under the EU Compartment, designed by the European Commission with implementing partners that are International Financial Institutions and where the Member State attaches no conditions other than territorial earmarking to the contribution, the use of such funds can be seen as not imputable to the contributing Member State and be thus subject to State aid consistency requirement only, as per Article 209(2) of the Financial Regulation.



Once the transfer to InvestEU is made, and the operations are approved by the Investment Committee, underlying operations can be signed **until the end of 2028**, which can provide some flexibility for Member States with implementation.

Key milestones





4 STEP and State Aid

Disclaimer: This leaflet constitutes non-exhaustive guidance on State aid measures potentially applicable for projects which have been granted the STEP Seal. It is the responsibility of Member States to design State aid measures which are compatible with the Union's State aid rules, including the GBER, when the latter is applicable. Compliance with provisions of the GBER is the responsibility of the Member States.

This guidance has been drafted by the services of the European Commission for information purposes and it is not intended to constitute a statement of the law. It is without prejudice to the interpretation of the Treaty provisions on State aid by the Union Courts and does not create any new rights in addition to those laid down in the Treaty, the State aid Procedural Regulation and the Implementing Regulation and their interpretation by the EU Courts. Any State aid relevant questions should be addressed to the national State aid authorities. For detailed and case-specific questions on State aid, Member States should initiate pre-notification discussions with DG Competition.

The purpose of this section is to provide information to Member States' managing authorities for both Recovery and Resilience funds⁸ and cohesion policy funds on State aid rules potentially applicable for projects which have received the STEP Seal.

STEP Seal and State aid rules. As per Art. 4(8) of the STEP Regulation, the award of a Sovereignty Seal (referred to as "STEP" seal in what follows) and the provision of cumulative funding is without prejudice to applicable State aid rules. When support to projects holding a STEP Seal constitutes State aid within the meaning of Article 107(1) TFEU, Member States must comply with the relevant State aid rules as required for any State aid measure. State aid rules provide a number of possibilities to support projects holding a STEP seal but provide at the same time important safeguards to protect the Single Market from harmful distortions.

STEP and State aid rules both aim to enhance competitiveness, ensure a level playing field, and promote cohesion as well as environmental objectives. STEP aims at directing investment towards three key technological sectors: (i) digital technologies and deep-tech innovation, (ii) clean and resource-efficient technologies, and (iii) biotechnologies. Projects in these technological realms are to be deemed critical where they meet either of the following conditions: they bring to the internal market an innovative, emerging, and cutting-edge element with significant economic potential; or they contribute to reducing or preventing the strategic dependencies of the Union. State aid rules provide a harmonised framework for assessing national public support, ensuring State interventions address market failures efficiently while minimising cost to what is necessary and limit distortions to competition. Both frameworks work together to support European industry and boost investment in critical technologies, considering cost efficiency, cohesion and environmental objectives, and the goal to maintain the level playing field in the Single Market.

Potentially applicable State aid rules for STEP Seal holders. The existing State aid toolbox has a variety of tools that can support various aspects of the respective value chains of (i) digital and deep technologies, (ii) clean and resource efficient technologies, and (iii) biotechnologies. These

⁸ Please note that the Commission has already provided extensive guidance in relation to RRF projects constituting State aid, available here: https://competition-policy.ec.europa.eu/state-aid/legislation/rrf-guiding-templates_en. This document is intended as complementary but does not alter this guidance in any way.



tools can thus be relevant for projects awarded a STEP seal and seeking additional funding from nationally managed EU resources (i.e. RRF and cohesion funds):

- **Regional Aid Guidelines (RAG) and regional aid section of General Block Exemption Regulation (GBER):** to provide investment support for manufacturing, in the three STEP key technological sectors, up to certain aid intensities, if the project takes place in assisted areas.
 - **For investments covered by the STEP Regulation, the Commission has increased the maximum aid intensities** by 10 percentage points in ‘a’ areas and 5 percentage points in ‘c’ areas. Member States need to notify an amendment to their regional aid map if they intend to apply the bonus to the maximum aid intensities already applicable.
- **State aid Framework for Research, Development and Innovation (RDIF):** to support research and development in all three key STEP technological sectors up to and including Technology Readiness Level (TRL) 8 as well as related infrastructures used to carry out such research and development activities by the scientific community and undertakings. The RDIF also includes support for innovation measures, such as support for innovation clusters, which can be set-up to stimulate innovation activity in the key STEP technological sectors.
- **Guidelines on State aid for Climate, Environmental protection and Energy (CEEAG):** to support projects a) aiming at reducing carbon emissions of energy generation or industrial processes using STEP clean technologies; b) aiming at reducing resource consumption in production, by using resource-efficient technologies. CEEAG is relevant for the deployment of the technology, not for developing the technology or manufacturing it.
- **Sections 2.5 and 2.6 of the Temporary Crisis and Transition Framework (TCTF):** to cover support for projects targeting the acceleration of (i) deployment of renewable energy and energy storage; (ii) decarbonisation in industry through switching to the use of hydrogen or hydrogen-derived fuels, electrification, or energy efficiency measures (use of STEP clean and resource-efficient technologies). These temporary rules are applicable in their current form until 31 December 2025.
- **Section 2.8 of the Temporary Crisis and Transition Framework (TCTF):** to provide investment support for manufacturing on a temporary basis and targeted to several of the STEP clean and resource-efficient technologies for the acceleration of the net-zero transition, i.e. batteries, solar panels, wind turbines, heat-pumps, electrolysers and carbon capture usage and storage. The TCTF also makes possible the provision of investment support for production and recycling of related critical raw materials. Higher aid intensities are allowed in assisted areas. In case of a concretely proven risk of diversion of an investment away from the Union due to third country subsidies, the aid amount can even match the amount of subsidy available in that other jurisdiction, up to a proven funding gap. These temporary rules are applicable in their current form until 31 December 2025.
- **State aid General Block Exemption Regulation (GBER) provisions:** for research and development projects, environmental protection and resource efficiency covering all three STEP key technological sectors, mainly for SMEs. The GBER also includes provisions for training aid and reskilling of employees. STEP projects addressing shortages of labour and skills in support of the STEP objectives could be financed under those provisions if they involve State aid.
- **Risk finance provisions of the General Block Exemption Regulation (GBER) and the Risk Finance Guidelines:** for facilitating access to finance for SMEs and small or innovative mid-caps active in the three STEP sectors, especially in the early stages of their



development. Support can also be provided on market conditions in compliance with the Commission's guidance on market-conform risk finance investment.

- **Important projects of common European interest (IPCEIs):** projects of a major innovative nature or that constitute an important added value in terms of R&D&I in the light of the state of the art in the sector concerned in the three STEP areas can be part of an IPCEI designed by several Member States up to the level of first industrial deployment (no mass production or commercial activities).

▶ These possibilities and the relevant legal basis will be further detailed in an upcoming Annex.

Notification templates. A series of documents is already available to provide guidance, guiding templates for the Recovery and Resilience Facility⁹, and notification templates destined to facilitate the work of managing authorities¹⁰.

The De Minimis Regulation¹¹ is a support instrument ideal for smaller grants to undertakings (in particular individual SMEs) which does not require a notification pursuant to article 108 TFEU. Member States need to verify that the amount of aid provided to a beneficiary does not exceed the De Minimis ceiling of EUR 300 000 per Member State per undertaking over any period of 3 years. Member States will have to register de minimis aid in a central register set at national or EU level as of 1 January 2026.

⁹ Available at: https://competition-policy.ec.europa.eu/state-aid/legislation/rrf-guiding-templates_en

¹⁰ Available at: https://competition-policy.ec.europa.eu/state-aid/legislation/forms-notifications-and-reporting_en.

¹¹ Commission Regulation (EU) 2023/2831 of 13 December 2023 on the application of Articles 107 and 108 of the Treaty on the Functioning of the European Union to de minimis aid, OJ L, 2023/2831, 15.12.2023



4.1 Annex – Potentially applicable State aid rules for STEP Seal holders

The State aid assessment of the projects holding a STEP Seal depends on their very nature (i.e. sector of the economy in which they operate, the nature of the R&D&I activities to be supported, the type of public support needed, etc.), which corresponds with the specifications of the different calls under the 5 eligible funding programmes¹². Based on the type of projects and the corresponding calls under the 5 STEP funds, it is possible to identify the most relevant State aid provisions for each fund. These are listed below. Beyond these State aid provisions, more could be relevant in specific cases.

4.1.1 Innovation Fund¹³

4.1.1.1 For decarbonisation projects

General Block Exemption Regulation

The General Block Exemption Regulation (GBER)¹⁴ sets out the conditions under which certain categories of aid may be exempted from the obligation to notify such aid to the Commission. Under the GBER, State aid does not have to be notified if it (i) does not exceed a notification threshold expressed in the form of a maximum aid amount and (ii) complies with all relevant general and specific GBER provisions including any additional limit to the maximum level of aid. For industrial decarbonisation projects, the most relevant is Section 7 on Aid for environmental protection, which, as a general rule, allows to grant aid up to EUR 30 million per undertaking per project. The national authorities are responsible for designing and implementing schemes fulfilling the conditions of the GBER.

In particular:

- Article 36 GBER on “Investment aid for environmental protection, including decarbonisation” allows State aid for investments to increase the level of environmental protection resulting from the beneficiary’s activities either in the absence of Union standards for environmental protection, or beyond Union standards. In addition, aid may be granted to comply with adopted Union standards, provided that the investment will be finalised at least 18 months before their entry into force.

Aid for investments in equipment, machinery and industrial production facilities using fossil fuels, including those using natural gas, is not exempted from the notification obligation under Article 36. However, granting of aid for the installation of add-on components improving the level of environmental protection of existing equipment, machinery and industrial production facilities using fossil fuels, is allowed provided that the installation of such add-on components result neither in the expansion of the production capacity nor in higher consumption of fossil fuels.

Investments in CO₂ capture and transport are eligible for support provided the investment is integrated into a complete CCS/CCU (‘carbon capture and storage/carbon capture and use’)

¹² Innovation Fund, Horizon Europe, Digital Europe Programme, European Defence Fund and EU4Health.

¹³ The Commission has adopted a Staff Working Paper on the combination of Innovation Fund grants with other public support, i.e. EU funds or State aid. It explains, among others, the rules which apply when cumulating an IF grant with State aid.

¹⁴ Commission Regulation (EU) No 651/2014, as amended and in force.



chain and the net present value of the project, taking into account the avoided costs of CO₂ emissions, is negative.

The eligible costs are the extra investment costs compared to the costs of a counterfactual (less environmentally friendly) scenario that would occur without the aid. In case of add-on components to an already existing facility, for which there is no less environmentally friendly counterfactual investment, the eligible costs shall be the total investment costs. The costs not directly linked to the achievement of a higher level of environmental protection shall not be eligible.

In principle, the aid intensity shall not exceed 40% of the eligible costs (30% in case of investments in CCS/CCU) and may be increased with SME and regional aid bonuses. The aid intensity may be increased to 100% where the aid is granted in a competitive bidding process, provided certain conditions are complied with. To note that the regular calls for proposals of the Innovation Fund do not constitute a competitive bidding process.

Should no competitive bidding process take place and no counterfactual scenario be identified, the default aid intensities of 40% or 30% and the applicable bonuses are halved.

As an alternative to determining the aid amount as a fraction of the eligible costs, the aid may achieve the difference between the investment costs directly linked to the achievement of a higher level of environmental protection and the operating profit of the investment (i.e. the difference between the discounted revenues and the discounted operating costs over the economic lifetime of the investment, where such difference is positive). In such situations a claw-back mechanism has to be applied to verify these projections.

- Article 41 GBER on “Investment aid for the promotion of energy from renewable sources, of renewable hydrogen and of high-efficiency cogeneration” allows Member States to support certain investments in the production and storage of renewable energy and in high efficiency cogeneration. Under this article, aid may reach up to 45% of the total investment costs for the production of renewable energy sources and high-efficiency cogeneration based on renewable sources, up to 30% of the total investment costs otherwise. Higher aid intensities are available for projects developed by medium-sized undertakings. Where a competitive bidding procedure is used to allocate the aid, the aid intensity may be further increased to 100% of the total investment costs.

Climate, Energy and Environmental State Aid Guidelines

State aid for industrial decarbonisation which exceeds the thresholds provided for in the GBER has to be notified for ex ante approval to the Commission. In particular, State aid may be granted under the Climate, Energy and Environmental State aid guidelines (CEEAG)¹⁵. Section 4.1 lays down the compatibility criteria for measures whose primary objective is decarbonisation. These include measures to support the production of energy from renewable sources, the promotion of energy efficiency, as well as measures involving a wide range of other technologies that can contribute to the achievement of the Union’s climate targets.

Support measures must in principle be designed to include all technologies that can contribute to the reduction or removal of greenhouse gas emissions from the environment. Limitations of the scope of a measure may be possible but need to be justified. Aid for reducing greenhouse emissions should in general be granted through a competitive bidding process that is open, clear, transparent and non-discriminatory, based on objective criteria, defined and published ex ante in accordance with the objective of the measure and minimising the risk of strategic bidding. In this case, the aid amount is limited to the bid of the selected bidders. As already

¹⁵ Guidelines on State aid for climate, environmental protection and energy 2022 (2022/C 80/01).



mentioned, the regular calls for proposals of the Innovation Fund do not constitute a competitive bidding process.

Exceptions from the requirement to allocate and determine the aid level through a competitive bidding process is possible subject to conditions and a justification. In that case, the aid amount is limited to the so-called 'funding gap', i.e. the net extra costs necessary to meet the objective of the measure compared to a realistic counterfactual scenario. Limits to profitability and/or claw-backs linked to possible positive scenarios of the business plan may be required to avoid overcompensation, in particular if there is uncertainty concerning relevant future market developments related to a large part of the business case. The potential claw-backs provisions would only be activated with respect to the part of the financial contribution which constitutes state aid.

Aid for the decarbonisation of industrial activities must reduce the emissions directly resulting from that industrial activity, and aid for improvements of the energy efficiency of industrial activities must improve energy efficiency of the beneficiaries' activities. The aid must moreover result in an overall reduction of greenhouse gas emissions and not merely displace greenhouse gas emissions. This entails that reductions in direct greenhouse gas emissions from the supported activity must not be outweighed by parallel increases in greenhouse gas emissions in other sectors (relevant for example for projects based on electrification or hydrogen-based technologies). The aid should contribute positively to the achievement of the Union's climate targets. Measures that incentivise new investments in energy or industrial production based on the most polluting fossil fuels are unlikely to meet this condition. For the same reason, investments in natural gas must credibly explain how a lock-in of natural gas reliance is avoided.

A public consultation on the competition impacts and proportionality of decarbonisation measures is mandatory in some specified cases, and for each project the subsidy per tonne of CO₂ equivalent emissions avoided must be calculated.

Temporary Crisis and Transition Framework

The Temporary Crisis and Transition Framework (TCTF)¹⁶ aims at fostering support measures in sectors which are key for the transition to a net-zero economy, in line with the Green Deal Industrial Plan. In particular:

- Section 2.5 TCTF on "Aid for accelerating the rollout of renewable energy and energy storage relevant for REPowerEU" lays down the compatibility criteria for support to accelerate and expand the availability of renewable energy in a cost-effective way with a view of quickly reducing dependency on fossil fuel imports and accelerate the energy transition. Under this section, Member States may provide investment and operating support on the basis of a scheme with an estimated volume and budget. Schemes may cover one or more of the following categories of projects: (i) energy from renewable sources, including the production of renewable hydrogen and renewable hydrogen-derived fuels but excluding the production of electricity from renewable hydrogen; (ii) electricity and thermal storage; (iii) storage for renewable hydrogen, biofuels, bioliquids, biogas and biomass fuels that obtains at least 75 % of its content from a directly connected renewable hydrogen, biofuels, bioliquids, biogas or biomass fuels production facility, on an annual basis. Specifically:
 - o Investment aid (section 2.5.1) may be granted in various aid forms on the basis of a competitive bidding procedure up to 100% of the total investment costs or,

¹⁶ Communication from the Commission: Temporary Crisis and Transition Framework for State Aid measures to support the economy following the aggression against Ukraine by Russia (OJ C 101/3, published on 9.3.2023), as amended and currently in force.



alternatively, the aid amount can be determined administratively by the Member State, on the basis of data on the investment cost of each supported project, up to 45% of the total investment costs (higher aid intensities are available for projects developed by medium-sized undertakings).

- Operating aid (section 2.5.2) may only be granted in the form of two-way contracts for difference (CfD) with a duration of up to 20 years after the aided installation starts operations. The strike price of the CfD can be determined through a competitive bidding procedure or, in certain cases, administratively by the competent energy regulatory authority to cover the expected net costs of supported projects.

In both cases, State aid may only be granted until 31 December 2025 and supported projects must be completed and in operation within 36 months after the date of granting with the exception of offshore wind technologies for which no such deadline is set. In order for this timeline to be respected, Member States need to have in place an effective system of penalties in case of non-compliance. In addition, Member States should ensure compliance with the “do no significant harm” principle in the implementation of supported projects.

State aid for industrial decarbonisation can also be assessed and approved under Section 2.6 of the Temporary Crisis and Transition Framework (TCTF). To be eligible under Section 2.6, the aid measure must be granted on the basis of an aid scheme. Aid can be granted to support the following three types of projects: (i) switch to the use of hydrogen (renewable or electrolytic, fulfilling certain minimum environmental conditions) or to the use of fuels deriving from renewable hydrogen; (ii) electrification; (iii) energy efficiency. The aid can concern only investments aimed at reducing emissions in existing industrial installation and may not increase production capacity.

The projects must ensure a reduction of at least 40% in greenhouse gas emissions or of at least 20% in energy consumption of the industrial facility concerned. In addition, in case of investments relating to activities covered by the EU Emission Trading System (ETS), the aid must lead to a reduction in the beneficiary installation’s greenhouse gas emissions going below the relevant benchmarks for free allocation set out in Commission Implementing Regulation (EU) 2021/447¹⁷. The projects must not merely ensure compliance with applicable Union standards.

The aid amount can be calculated under three alternative methods: (i) up to 40% of the project’s eligible costs, defined as the difference between the costs of the aided project and the cost savings or additional revenues, compared to the situation in the absence of aid; the aid intensity may be increased for SMEs, for higher emission reductions/energy savings (ii) up to the bidding price offered by the beneficiary in a competitive bidding process (if the scheme entails such a process); (iii) up to 60% or 30% of the project’s investment costs, for switch to the use of hydrogen and hydrogen-derived fuels, as well as for electrification and energy efficiency, respectively. The maximum aid amount per beneficiary cannot exceed either EUR 200 million or 10% of the scheme’s total budget.

Aid can be cumulated with other aid for different eligible costs. Aid calculated under the methods (i) and (ii) can be cumulated with other aid or with support from centrally managed funds for overlapping eligible costs provided that the maximum aid amounts as provided in the TCTF are respected. Aid calculated under the method (iii) can be cumulated with other aid or support from centrally managed funds for overlapping eligible costs provided that the highest

¹⁷ Commission Implementing Regulation (EU) 2021/447 of 12 March 2021 determining revised benchmark values for free allocation of emission allowances for the period from 2021 to 2025 pursuant to Article 10a(2) of Directive 2003/87/EC of the European Parliament and of the Council (OJ L 87, 15.3.2021, p. 29).



aid amount or intensity under any of the applicable rules is respected. The total aid amount cannot exceed 100% of the eligible costs.

Finally, the projects need to be in operation within 36 months after the granting of aid; the scheme must include a system of penalties in case this deadline is not met.

4.1.1.2 For clean tech manufacturing projects

Regional aid Guidelines (RAG)

Investments in clean tech manufacturing can be supported by regional investment aid which can be granted to large companies as well as to SMEs in assisted areas¹⁸ ('a' areas and 'c' areas), subject to the conditions of the Regional Aid Guidelines. Each Member State has a regional aid map in which the assisted areas are defined. Almost half of the EU qualifies as assisted area. For aid not going beyond certain notification thresholds¹⁹, Article 14 of the GBER could be applied (see below).

In 'a'-areas, regional investment aid can be granted to large enterprises and SMEs not only for investments related to new establishments, but also for investments to extend and/or modernise existing establishments.

In 'c' areas, the same types of investment can be supported when they are carried out by SME's. Also, large enterprises can benefit from regional investment aid in 'c'-areas for their investments relating to new establishments (greenfield investments) and new economic activities (in principle falling into a different class (four-digit numerical code) of the NACE Rev.2 statistical classification of economic activities).

Regional investment aid is expressed as a percentage of the total (eligible) cost of an initial investment ('regional aid intensity') and can be granted up to the maximum aid intensity applicable in the respective assisted area (as specified in the regional aid maps). For STEP projects, those maximum aid intensities can be 5 percentage points (in 'c' areas) and 10 percentage points (in 'a' areas) higher than for other types of investments, if the respective Member State has notified such an amendment of its regional aid map. In principle, the more disadvantaged the region is, the more regional aid can be granted. For Large investment projects (with eligible costs exceeding EUR 50 million) a "scaling down mechanism" applies²⁰). Under the Regional aid guidelines, the Commission will also verify whether the aid amount does not exceed the net extra costs of implementing the investment in the area concerned.

If Member States consider granting regional investment aid for clean tech manufacturing projects under the Regional Aid Guidelines, the aided project must: (i) contribute to economic development of the area (e.g. taking account of direct and indirect jobs created, sustainability (duration) of the investment in the region, transfer of technology and knowledge spill-over in the region); (ii) have an incentive effect (i.e. the aid must change the behavior of the undertaking concerned in such a way that it engages in additional activity which it would not carry out without the aid or it would carry out in a restricted or different manner or location); (iii) be limited to the minimum necessary and in any event below the maximum aid intensity for the region; and (iv) potential negative effects on competition and trade between Member States should remain limited (e.g. aid for manufacturing of

¹⁸ 'Assisted areas' means areas designated in an approved regional aid map, valid at the time of award of the aid in application of Articles 107(3)(a) and (c) TFEU.

¹⁹ See Article 4 GBER

²⁰ See paragraph 19(3) RAG. For further details, see also the section on the regional aid guidelines below. 'Assisted areas' means areas designated in an approved regional aid map, valid at the time of award of the aid in application of Articles 107(3)(a) and (c) TFEU. An initial investment in favour of new economic activity includes, among others, an investment in tangible and intangible assets related to the setting up of a new establishment, or to the diversification of the activity of an establishment, under the condition that the new activity is not the same or a similar activity to the activity previously performed in the establishment.



innovative products for new growing markets would be less harmful than extension of capacities for existing products in declining markets, aid for an undertaking with lower market power is less harmful than for undertakings with significant market share).

In line with the provisions explained above, the Commission will first establish whether the notified investment project is eligible for regional aid. To show that the project is eligible for aid under the Regional Aid Guidelines, the Member State must demonstrate i) that the project will be located in an assisted area in the respective Member State and ii) that it qualifies as an initial investment project. It is for the notifying Member State to define the category of the initial investment project. The Commission will then verify the compatibility of the notified aid in application of the conditions laid down in the Regional Aid Guidelines. A balancing of the positive and the negative effects of the aid needs to ensure that the contribution to regional development outweighs the negative effects on trade and competition.

The Commission checks whether minimum requirements regarding the credibility of the counterfactual scenario, appropriateness, incentive effect, and proportionality of the aid and its contribution to regional development are met. The Member State will be required to provide detailed information on the counterfactual scenario (including the decision-making process). There are two possible “counterfactual scenarios”: the investment decision scenario (the (additional) investment would not be sufficiently profitable) or location scenario (the project would be located elsewhere in the EEA or outside EEA). The Member State should explain the impact of the aid on the investment decision or location decision to demonstrate the need for State intervention (“incentive effect”) and should (taking into account all sources of funding) demonstrate that the aid is proportionate.

General Block-Exemption Regulation

Article 14 GBER (regional investment aid) allows granting State aid for investments that take place in an assisted area, up to certain notification thresholds. If the relevant conditions are fulfilled, Article 14 GBER could cover investment aid, for undertakings of all sizes, in all assisted areas, for clean tech manufacturing investments, if this is an initial investment in favour of a new economic activity in the area concerned (an investment related to the set-up of a new establishment or related to a new activity).

In existing establishments, regional investment aid could also be provided for investment in clean tech manufacturing, if the investment takes places in an ‘a’-area, or is carried out by a SME in a ‘c’-area, and qualifies as an initial investment related to a fundamental change in the production process, an expansion of the capacity, or a diversification of the output of the establishment into products not previously produced.

For aid granted under regional aid schemes, the incentive effect is met if the beneficiary has submitted a written application for aid to the Member State concerned before start of works (Article 8 GBER). The maximum aid intensities of the regional aid maps and the scaling down mechanism also apply for regional aid granted under the GBER.

Article 17 GBER allows granting investment aid to SMEs (in both assisted and non-assisted areas), not exceeding the threshold of EUR 8.25 million per undertaking per investment project. Eligible investments mainly include investments in tangible and/or intangible assets relating to the setting up of a new establishment, the extension of an existing establishment, diversification of the output of an existing establishment into new additional products or a fundamental change in the overall production process of an existing establishment. The maximum aid intensity is 20 % of eligible costs for small enterprises and 10 % for medium-sized enterprises.



Temporary Crisis and Transition framework (TCTF)

Section 2.8 of the TCTF allows for investment aid for the manufacturing of strategic equipment for the green transition, namely batteries, solar panels, wind turbines, heat-pumps, electrolysers and carbon capture usage and storage. This section also allows to support the production of key components of such strategic equipment and for production and recycling of related critical raw materials. It is applicable until 31 December 2025.

Member States may design simple and effective schemes, providing support capped at a certain percentage of the investment costs up to specific nominal amounts, depending on the location of the investment and the size of the beneficiary. For example, a grant for an investment by a large enterprise in a 'c' area can go up to 20% of eligible costs, with the overall aid amount not exceeding EUR 200 million per undertaking per Member State. Member States must verify the concrete risk of the investment not taking place in the EEA without the aid.

In exceptional cases, Member States may provide higher support to individual companies, where there is a real risk of investments being diverted away from Europe, subject to a number of safeguards.

Important Projects of Common European Interest (IPCEI)

Assessed and approved under the **IPCEI Communication**²¹, IPCEI are single or integrated cross-border projects, which entail an important contribution to the Union's objectives; as such, IPCEI may be organised in the energy or environmental field (e.g. technologies related to renewable hydrogen), or in other fields, in line with the Union's relevant objectives.

Projects participating in an IPCEI may be research and development projects, including their first industrial deployment, and/or infrastructure projects, for instance in the environmental, energy or transport sectors. Research projects must be of a major innovative nature and go beyond the global state-of-the-art in the relevant technical field. First industrial deployment projects must allow for the development of a new product or service with high research and innovation content but cannot entail any mass production or commercial activities. Infrastructure projects must either be of great importance for the environment, energy, including security of energy supply, or transport strategy of the Union or contribute significantly to the internal market.

An integrated IPCEI is a group of individual projects inserted in a common structure, roadmap, or programme, aiming at the same objective and based on a coherent systemic approach. Integration is decisive for an IPCEI and must be clearly demonstrated. Each individual project of an integrated IPCEI must demonstrate its value and contribution to achieve the IPCEI objectives and has to fulfil all eligibility and compatibility criteria.

Apart from the eligibility conditions described above, an IPCEI project must fulfill some additional compatibility conditions: it must address a market failure, involve significant co-financing by the beneficiaries, generate positive spillover effects across the EU, and comply with the principle of "Do No Significant Harm"; moreover, the IPCEI must involve at least four Member States and must be designed and implemented in an open and transparent process, by giving all Member States the opportunity to participate and by selecting the individual participating projects through calls for expression of interest.

²¹ Communication from the Commission: Criteria for the analysis of the compatibility with the internal market of State aid to promote the execution of important projects of common European interest, OJ C 528/10, 30.12.2021.



The amount of aid can cover up to 100% of the individual project's funding gap; if justified by the funding gap, the amount of aid can cover the project's eligible costs (as they are defined in the Annex to the IPCEI Communication). The funding gap refers to the difference between the positive and negative cash flows over the lifetime of the investment, discounted to their current value based on an appropriate discount factor reflecting the rate of return necessary for the beneficiary to carry out the project, notably in view of the risks involved.

4.1.2 Horizon Europe

4.1.2.1 Testing and Experimentation Facilities / pilot lines used for R&D activities (up to and including TRL8)

State aid for Testing and Experimentation Facilities and pilot lines should normally fall under State aid rules.

Article 26a GBER allows granting State aid for investment costs linked to the setting up of open access testing and experimentation infrastructures, on the basis of which services are provided to undertakings for upscaling innovative technologies, up to and including Technology Readiness Level 8 activities. These testing and experimentation infrastructures are facilities, equipment, capabilities and resources, such as test beds, pilot lines, demonstrators, testing facilities or living labs, and related support services that are used predominantly by undertakings, especially SMEs, which seek support for testing and experimentation, in order to develop new or significantly improved products, processes and services, and to test and upscale technologies, to advance through industrial research and experimental development. Access to publicly funded testing and experimentation infrastructures is open to several users and must be granted on a transparent and non-discriminatory basis and at market terms. Aid for testing and experimentation infrastructure can be granted with a maximum aid intensity of 25% of the investment costs. The aid intensity can be increased to 60%, 50%, and 40% for testing and experimentation infrastructures respectively managed by small, medium, and large undertakings, when certain specific compatibility conditions are met (e.g., if the TEIs are funded by at least two Member States and primarily offer services to SMEs, dedicating at least 80% of their capacity to this purpose). State aid of up to EUR 25 million per testing and experimentation infrastructure can be implemented under Article 26(a) GBER without the need to notify the support to the Commission.

State aid for Testing and Experimentation Facilities and pilot lines above EUR 25 million per infrastructure should be notified to the Commission for an assessment in line with the compatibility conditions set out in the State aid Framework for RDI²².

Under the R&D&I Framework, large R&D projects and testing and experimentation infrastructures will be assessed in detail to establish whether all the relevant compatibility criteria are met, notably necessity, appropriateness and proportionality of the aid. If that is the case, higher aid intensities than under the GBER can potentially be allowed based on the so-called detailed assessment to make sure that the aid amount is necessary, has an incentive effect and is limited to the minimum needed for carrying out the aided activity.

Testing and experimentation infrastructures co-funded by Union funding, agencies, joint undertakings or other bodies of the Union, could benefit from public support up to 100% of eligible investment costs, provided that the necessary amount of total public funding (i.e. State aid and other sources of public funding) for the project is demonstrated on the basis of a credible funding

²² Communication from the Commission Framework for State aid for research and development and innovation 2022/C 414/01



gap assessment to ensure that the total amount of public funding does not lead to overcompensation.

4.1.2.2 Support for Chips Act JU pilot lines (to carry out R&D activities up to and including TRL8)

Pilot lines set up under the Chips Act JU are facilities used for R&D activities.

Beneficiaries setting up pilot lines are recipients of State aid if the public funding fulfils all conditions of Article 107(1) of the Treaty. Pursuant to the Commission Notice on the notion of State aid, and in accordance with the case-law of the Court of Justice, the beneficiary must qualify as an undertaking, but that qualification does not depend upon its legal status, that is to say whether it is organised under public or private law, or its economic nature, that is to say whether it seeks to make profits or not. Rather, what is decisive for that qualification as an undertaking is whether it carries out an economic activity consisting of offering products or services on a given market.

Pilot lines may be considered as research infrastructures or testing and experimentation infrastructures as defined under the R&D&I Framework or respective GBER R&D&I provisions. Research infrastructures are predominantly used by the scientific community while testing and experimentation infrastructures are predominantly used by undertakings (i.e. entities carrying out economic activities) to develop, test and upscale innovative technologies up to TRL8.

The **R&D&I Framework** provides guidance when support for R&D&I activities is not considered to fall under Article 107 (1) of the Treaty as it targets non-economic activities.

According to the R&D&I Framework, where a research organisation or research infrastructure is used almost exclusively for a non-economic activity, its funding may fall outside State aid rules in its entirety, provided that any economic use remains purely ancillary, that is to say corresponds to an activity which is directly related to and necessary for the operation of the research organisation or research infrastructure or intrinsically linked to its main non-economic use, and which is limited in scope. For the purposes of this framework, the Commission considers this to be the case where the economic activities consume exactly the same inputs (such as material, equipment, labour and fixed capital) as the non-economic activities and the capacity allocated each year to such economic activities does not exceed 20 % of the relevant entity's overall annual capacity.

The R&D&I Framework also provides guidance on the presence of indirect State aid to industry, in R&D-interactions with publicly funded research organisations, in particular as regards contract research, effective collaboration and research services on behalf of industry, as well as knowledge transfer in R&D-collaboration with industry. Where research organisations perform research on behalf of undertakings, those undertakings do not receive any advantage if they pay a market conform remuneration for the service. Likewise, in effective R&D-collaboration with research organisations, undertakings do not receive any advantage if they compensate the research organisation equivalently to the market price, for IPR that the research organisation has created.

When public funding for pilot lines falls under State aid rules insofar as it covers costs linked to the economic activities, such investments can be supported under GBER, as long as the relevant compatibility provisions are fulfilled. The following GBER articles can be used to grant support to pilot lines:

Article 26 GBER (investment aid for research infrastructures, as defined in article 2 (91) GBER) allows granting State aid for the construction or upgrade of research infrastructures that perform economic activities, subject to separate cost accounting of the economic and non-economic



activities, a monitoring and claw-back mechanism, open access to the infrastructure on a transparent and non-discriminatory basis, and the charging of a market price for its operation or use. Undertakings which have financed at least 10% of the investment costs of the infrastructure may be granted preferential access under more favourable conditions, whereby, such access shall be proportional to the undertaking's contribution to the investment costs and these conditions shall be made publicly available. The eligible costs shall be the investment costs in intangible and tangible assets. The aid intensity shall not exceed 50% of the eligible costs. The aid intensity may be increased up to 60% subject to at least two Member States providing the public funding, or for a research infrastructure evaluated and selected at Union level. The maximum amount of aid under this Article is EUR 35 million per infrastructure. It is important to note that research infrastructures are the infrastructures that are used by the scientific community to conduct research in their respective fields (see article 2 (91) GBER).

Article 26a GBER allows granting State aid for investment costs linked to the setting up of open access testing and experimentation infrastructures (as defined in article 2 (98a)), on the basis of which services are provided to undertakings for developing and upscaling innovative technologies, up to Technology Readiness Level 8 activities included. These testing and experimentation infrastructures are facilities, equipment, capabilities and resources, such as test beds, pilot lines, demonstrators, testing facilities or living labs, and related support services that are used predominantly by undertakings, especially SMEs, which seek support for testing and experimentation, in order to develop new or improved products, processes and services, and to test and upscale technologies, to advance through industrial research and experimental development. Access to publicly funded testing and experimentation infrastructures is open to several users and must be granted on a transparent and non-discriminatory basis and at market terms. Aid for testing and experimentation infrastructure of can be granted with a maximum aid intensity of 25%. That aid intensity can be increased up to 60%, 50% and 40% for small, medium and large testing and experimental infrastructures, respectively, when certain specific compatibility conditions are fulfilled (e.g. when the TEIs are funded by at least two Member States and provide services predominantly to SMEs, allocating at least 80% of its capacity for that purpose). State aid of up to EUR 25 million per testing and experimentation infrastructure can be implemented under Article 26(a) GBER without the need to notify the support to the Commission.

In case the notification thresholds provided by the GBER are exceeded or other GBER conditions are not met, Member States must notify the aid measures to the Commission for approval. The Commission will assess the State aid on the basis of Article 107 (3) TFEU, taking into account the compatibility assessment guidance set out in the R&D&I Framework. To this end, large R&D support for research infrastructures and testing and experimentation infrastructure will be assessed in detail in order to establish whether all the relevant compatibility criteria are met, notably necessity, appropriateness and proportionality of the aid. If that is the case, higher aid intensities than under the GBER can potentially be allowed based on the so-called detailed assessment to make sure that the aid amount is necessary, has an incentive effect on the beneficiary and is limited to the minimum needed for carrying out the aided activity by the beneficiary.

4.1.2.3 Support for R&D projects

Article 25 GBER (Aid for research and development project) allows granting State aid for R&D projects with high notification thresholds (EUR 55, 35 or 25 million per undertaking per project



depending on the research category²³) and generous aid intensities. The permitted aid intensities range between 100% and 25% depending on the closeness of the R&D activities to the market. When an R&D project is predominantly experimental development, aid of up to EUR 25 million can be granted without notification to the Commission with an aid intensity of 25 % of eligible costs. These include personnel costs, costs of instruments, equipment, buildings and land to the extent and for the period used for the project, costs of contractual research. The aid intensity of 25 % applies to undertakings of all sizes and can be increased when the aided project is carried out by an SME; when the aided project involves effective collaboration, or its results are widely disseminated, or the beneficiary commits to make available licences for IP-protected results; or the aided project is carried out in an assisted region. A bonus is also allowed for R&D projects delivering cross-border benefits in terms of effective collaboration and knowledge dissemination, where such projects have been selected following an open call to form part of a project jointly designed by at least three Member States or contracting parties to the EEA Agreement, presuming that all relevant conditions are fulfilled. Bonuses can in some cases be cumulated, up to a total maximum aid intensity of 80%. Nowadays, the vast majority of aid for R&D is granted under the GBER. Article 25 GBER may, if the conditions are fulfilled, be available for R&D projects on innovative cloud and edge infrastructures, middleware, and cloud and edge services.

Articles 25a – 25d GBER provide additional legal basis for supporting R&D projects. These new articles introduce alignments with conditions under the Horizon 2020 or the Horizon Europe programmes and hence provide simplification and synergies by eliminating duplication in assessment and reducing administrative burden. These articles provide for aid for SMEs for R&D and feasibility studies (Article 25a GBER), aid for Marie Skłodowska-Curie actions and European Research Council Proof of Concept actions (Article 25b GBER) with regard to projects awarded a Seal of Excellence quality label under the Horizon 2020 or the Horizon Europe programme. Moreover, they allow for aid for co-funded R&D projects and feasibility studies (Article 25c GBER) and co-funded Teaming actions (aiming at creation of new or update existing centres of excellence, including investment aid for infrastructures) (Article 25d GBER), which have been independently evaluated and selected following transnational calls under the Horizon 2020 or the Horizon Europe programme. For these aids the rules to determine eligible activities, eligible costs and total public funding are the ones defined under the Horizon 2020 or the Horizon Europe programme. Similar to Article 26 GBER, investment aid for infrastructures under a co-funded Teaming action (Article 25d GBER) is subject to the following conditions: separate cost accounting of the economic and non-economic activities, a monitoring and claw-back mechanism, open access to the infrastructure on a transparent and non-discriminatory basis, and the charging of a market price for its operation or use. Undertakings which have financed at least 10% of the investment costs of the infrastructure may be granted preferential access under more favourable conditions, whereby, such access shall be proportional to the undertaking's contribution to the investment costs and these conditions shall be made publicly available.

If a project receives not only a Seal of Excellence quality label under the Horizon Europe programme but also a STEP (Sovereignty) Seal, Art. 25a GBER applies.

Article 26 GBER (investment aid for research infrastructures, as defined in article 2 (91) GBER) allows granting State aid for the construction or upgrade of research infrastructures that perform economic activities, subject to separate cost accounting of the economic and non-economic activities, a monitoring and claw-back mechanism, open access to the infrastructure on a transparent and non-discriminatory basis, and the charging of a market price for its operation or use. Undertakings which have financed at least 10% of the investment costs of the infrastructure may be granted preferential access under more favourable conditions, whereby such access shall

²³ There are three categories (stages) of R&D: fundamental research, industrial research, experimental development; see their definitions in Article 2 GBER, points 84-86.



be proportional to the undertaking's contribution to the investment costs and these conditions shall be made publicly available. The eligible costs shall be the investment costs in intangible and tangible assets. The aid intensity shall not exceed 50% of the eligible costs. The aid intensity may be increased up to 60% subject to at least two Member States providing the public funding, or for a research infrastructure evaluated and selected at Union level. The maximum amount of aid under this Article is EUR 35 million per infrastructure. It is important to note that research infrastructures are the infrastructures that are used by the scientific community to conduct research in their respective fields (see article 2 (91) GBER).

In case the notification thresholds provided by the GBER are exceeded or other GBER conditions are not met, Member States must notify the aid measures to the Commission for approval. In such cases, the Commission will assess these measures on the basis of Article 107(3) TFEU, taking into account the relevant guidelines, namely the R&D&I Framework.

4.1.3 EIC Fund / Risk finance investment

The access to finance State aid rules include, mainly, risk finance aid (Article 21 GBER and Risk Finance Guidelines) and aid for start-ups (Article 22 GBER). Block exempted risk finance schemes under Article 21 and 22 GBER do not require an individual notification.

The main conditions for risk finance schemes under **Article 21 GBER** are the following:

- The total outstanding financing amount for any final beneficiary is limited to EUR 16.5 million;
- The eligible undertakings can be only unlisted, early-stage SMEs, whereby the 'early-stage' criteria are differentiated amongst the following three stages of development: i. before operating in any market, ii. operating in a market for less than ten years following their registration or less than seven years after the first commercial sale, or iii. getting into a new economic activity requiring an investment which is 50% higher than annual turnover;
- The public investment must raise co-investments from private investors. This required co-investment depends primarily on the development stage of the SMEs, whereas unlisted SMEs require a private co-investment of at least 10% in stage i), 40% in stage ii), and 60% in stage iii).
- Member States cannot grant risk financing directly and must channel the financing through financial intermediaries²⁴. Grants are excluded.

Member States must notify risk finance measures that go beyond the scope of GBER. These can be approved under the **Risk Finance Guidelines**, which allow for the following parameters exceeding the GBER conditions:

- Financing amounts can be higher than EUR 16.5 million, when there is a demonstrable unmet demand for finance (funding gap) by eligible companies;
- Eligible beneficiary companies can also be small or innovative mid-caps, if the latter are afflicted by the market failure of asymmetric information, and may receive financing for a period exceeding the limits of the development stage ii)

For start-up companies, which are small unlisted enterprises up to 5 years following their registration, **Article 22 GBER** provides a simpler approach than that of Article 21:

²⁴ The EIC Fund can be considered as intermediary under Article 21 GBER and the Risk Finance Guidelines.



- Public authorities do not need to implement a scheme via financial intermediaries, they can also grant aid directly to beneficiary companies;
- There is no requirement for private co-investment;
- The financing to companies may also be provided in the form of grants and grant-equivalent instruments;
- Maximum financing amounts are significantly smaller than under Article 21 GBER and are differentiated by type of financial instruments.

4.1.4 Digital Europe Programme

If the financing of a DEP supported project involves State resources (budgetary resources from Member States or EU funds under shared management), on top of DEP/private funding, there is a need to assess if State aid is present, unless Member State funding can be considered De minimis or there are other circumstances that could exclude the presence of aid (e.g. Member States acting as market operators, support is provided for projects that are non-economic).

In cases where the presence of a State aid element is confirmed, its compatibility with the TFEU will have to be assessed. In many cases, Member State funding may still fall under one of the exemptions foreseen in the General Block Exemption Regulation (GBER, the applicable provisions depend on the nature of targeted investment). State aid which complies with the general and specific conditions of the GBER does not need to be notified to the Commission. It is the responsibility of the Member State to ensure State aid is implemented in compliance with the GBER. If State aid is not covered by the GBER, or in case the notification thresholds provided by the GBER are exceeded, a notification to the Commission is required and State aid cannot be granted by the Member State before the Commission decision. The Commission will assess these measures on the basis of Article 107(3) TFEU, taking into account, when applicable, the relevant guidelines, such as the R&D&I Framework.

Public funding awarded under the DEP programme is considered as Union funding centrally managed by the EU Commission that is not directly or indirectly under the control of the Member State. Although not constituting State aid as such, when combined with State aid to cover the same eligible costs, Union funding needs to be taken into consideration in the application of the aid cumulation rules (Article 8(2) GBER)²⁵. DEP, however, could finance costs that are not eligible under State aid rules. These non-eligible costs (i.e. costs which are not eligible under State aid rules) shall not be taken into account in the State aid assessment applicable to State resources used by Member States to fund projects.

The following GBER provisions could be applicable to support granted by Member States for investments co-financed under the DEP programme:

As in 4.1.2.3 above, **Article 25** can apply.

Article 26a GBER (Investment aid for Testing and Experimentation Infrastructures), which can be applicable to Testing and Experimentation Facilities supported under the DEP programme, allows granting State aid for investment costs linked to the setting up open access testing and experimentation infrastructures (as defined in article 2 (98a), on the basis of which services are

²⁵ In line with article 8(2) of the GBER “the total amount of public funding granted in relation to the same eligible costs can not exceed the most favourable funding rate laid down in the applicable rules of Union law”.



provided to undertakings for upscaling innovative technologies, up to Technology Readiness Level 8 activities included. These testing and experimentation infrastructures are facilities, equipment, capabilities and resources, such as test beds, pilot lines, demonstrators, testing facilities or living labs, and related support services that are used predominantly by undertakings, especially SMEs, which seek support for testing and experimentation, in order to develop new or improved products, processes and services, and to test and upscale technologies, to advance through industrial research and experimental development. Access to publicly funded testing and experimentation infrastructures is open to several users and must be granted on a transparent and non-discriminatory basis and at market terms. Aid for testing and experimentation infrastructure of can be granted with a maximum aid intensity of 25%. That aid intensity can be increased up to 60%, 50% and 40% for small, medium and large testing and experimental infrastructures, respectively, when certain specific compatibility conditions are fulfilled (e.g. when the TEIs are funded by at least two Member States and provide services predominantly to SMEs, allocating at least 80% of its capacity for that purpose). State aid of up to EUR 25 million per testing and experimentation infrastructure can be implemented under Article 26(a) GBER without the need to notify the support to the Commission.

Article 27 GBER (Aid for innovation clusters), which can be applicable to European Digital Innovation Hubs (EDIH) supported under the DEP programme, allows granting investment State aid for the construction or upgrade of innovation clusters subject to open access to the innovation cluster on a transparent and non-discriminatory basis, and the charging of a market price for its operation or use. Undertakings which have financed at least 10% of the investment costs of the infrastructure may be granted preferential access under more favourable conditions, whereby, such access shall be proportional to the undertaking's contribution to the investment costs and these conditions shall be made publicly available. The eligible costs for investment aid shall be the investment costs in intangible and tangible assets. The aid intensity of investment aid for innovation clusters shall not exceed 50 % of the eligible costs. The aid intensity may be increased by 15 percentage points for innovation clusters located in assisted areas fulfilling the conditions of Article 107(3)(a) of the Treaty and by 5 percentage points for innovation clusters located in assisted areas fulfilling the conditions of Article 107(3)(c) of the Treaty. Operating aid to innovation clusters can be granted for the operation of innovation clusters. Eligible costs of operating aid for innovation clusters shall be the personnel and administrative costs (including overhead costs) as defined in Article 27 (8) GBER i.e. i. animation of the cluster to facilitate collaboration, information sharing and the provision or channelling of specialised and customised business support services; ii. marketing of the cluster to increase participation of new undertakings or organisations and to increase visibility; management of the cluster's facilities, organisation of training programmes, workshops and conferences to support knowledge sharing and networking and transnational cooperation.

The aid intensity of operating aid shall not exceed 50 % of the total eligible costs during the period over which the aid is granted. It shall not exceed 10 years. State aid of up to EUR 10 million per innovation cluster can be implemented under Article 27 GBER without the need to notify the support to the Commission.

To facilitate access to the innovation cluster facilities or participation in the innovation cluster's activities access can be offered at reduced prices in accordance with other provisions of Regulation (EU) No 651/2014 or Regulation (EU) No 1407/2013.

Article 28 GBER (Innovation aid for SMEs) allows granting State aid for costs for innovation advisory and support services to SMEs with generous aid intensities. Such innovation advisory and



innovation support services²⁶ include e.g. the consultancy, assistance or training on the introduction or use of innovative technologies and solutions (including digital technologies and solutions), the testing and experimentation services provided for the purpose of developing more effective or technologically advanced products, processes or services, including the implementation of innovative technologies and solutions (including digital technologies and solutions). By default, aid of up to 50% of the eligible costs can be granted. Aid can be increased up to 100% of the eligible costs if the total amount of aid for innovation advisory and support services does not exceed EUR 220 000 per beneficiary within any three year period.

Some of the DEP funded projects (i.e. European Digital Innovation Hubs, AI competence centres) will be set up to serve their customers. They should be open to a wide range of users and access to them and their services needs to be granted on a transparent and non-discriminatory basis and on market terms, or on a cost-plus-reasonable-margin basis for large undertakings, while access “for free” or at reduced prices can be provided to SMEs. Access to such services at reduced prices or access “for free” granted to SMEs is considered to be State aid. However, such State aid may be compatible with the internal market if the conditions set out, for example, in Article 28 GBER are fulfilled.

Fees paid to access research infrastructures or for services provided by research and knowledge dissemination organisations, research infrastructures, testing and experimentation infrastructures or innovation clusters can qualify as eligible costs for innovation advisory and support services incurred by SMEs. Where the default/regular aid intensity of 50% is applied, a maximum amount of aid of EUR 10 million per undertaking and per project can be granted under this GBER provision.

De Minimis

Support to undertakings can also be granted on the basis of the De Minimis Regulation, which exempts small aid amounts from the scope of EU State aid control because they are deemed to have no impact on competition and trade in the internal market. The total amount of De Minimis aid granted per Member State to a single undertaking shall not exceed EUR 300 000 over any period of 3 years.

4.1.5 European Defence Fund

In view of [Article 346 TFEU](#), it is considered that the defence industry falls outside the scope of the State aid rules. However, such exception needs to be interpreted restrictively. In order to benefit from the derogation a measure must: (i) concern the production of or trade in arms, munitions and war material enumerated on the 1958 list; the 1958 list includes only equipment which is of purely military nature and purpose, (ii) be necessary for protecting the essential interests of a Member State’s security; (iii) not adversely affect the conditions of competition regarding products which are not intended for specifically military purposes. If those conditions are fulfilled, the special procedure laid down in Article 348 TFEU may apply.

For dual-use goods, i.e. goods which serve both a military as well as a civilian purpose, State aid rules apply to the civilian aspect of the goods.

[Article 25e GBER](#) (aid involved in the co-funding of projects supported by the European Defence Fund or the European Defence Industrial Development Programme) allows granting State aid to co-

²⁶ Defined in Article 2 (94) and (95) GBER



fund a research and development project funded by the EDF or the European Defence Industrial Development Programme, which is evaluated, ranked and selected in line with the EDF or the European Defence Industrial Development Programme. The total funding can reach up to 100% of eligible costs of the project, allowing that costs not covered by Union funding can be topped-up by State aid. State aid of up to EUR 80 million per undertaking, per project can be implemented under this provision without the need to notify the support to the Commission.

