**Project Portfolio**

**FEV Group GmbH**

Aachen, Germany

[](https://info.fev.com/)

**Work streams “XXX”, “YYY”, etc. in the strategic value chain**

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1. Project Outline
   1. Company Presentation

*Please give a brief description of your company and type of company*

**e2 additional recommendations:**

* Don’t use too many words like “number one”, “leader”, “best in the market”, etc.
* Identify existing markets
* Explain R&D strategy
* Don’t use “we” but explicitly mention the company’s name in all the document

FEV is a … (start with homepage)

* 1. Objectives of the company in the IPCEI in all technical fields it’s involved

*Please give a brief description of the overall objectives of activities in all technical fields you’re involved, linking objectives between technical fields.*

**e2 additional recommendations:**

* Clarify the market intended to be served by the company through the IPCEI in terms of products, potential customers, applications, geographical coverage
* Mention the key potential suppliers impacted by the company’s planned production
* Use a table to summarize the information at the end of the section

[please primarily describe the objectives of the project from the R&D + industrial + commercial point of view; please already make clear that the project is highly innovative]

[as a short complement, please outline the impact of the project in terms of CO2 reduction]

* 1. R&D Projects Before IPCEI

*Description of the R&D-parts which were necessary for the IPCEI project and that were carried out before start of the project (background).*

**e2 additional recommendations:**

* Indicate in which projects (name, dates, partners, objective, funding) the company was involved before the IPCEI in the same scientific and technological fields as well as its role / contribution / main results
* Indicate in which projects (name, dates, partners, objective, funding) the company was involved before the IPCEI in the same scientific and technological fields as well as its role / contribution / main results
* Use a table to summarize the information at the end of the section

FEV has developed a complete fuel cell system and integrated it into a vehicle (Breeze) as one main partner. This project helped to increase the know how of fuel cell stack development, but also on system layout, balance of plant and vehicle integration. The fuel cell system was tested, calibrated and is running with FEV own control software. Partners: Graebener, ZBT, etc.

Other projects:

HIFI-Elelments (EU / virtual development of electric vehicles)

…

* 1. Technology and Challenges – R&D&I Activities within IPCEI in all technical fields it’s involved

*For each WP describe the state of art, the technical locks, the objective and the technical challenge to solve de technical locks.*

* + 1. State of the art

**e2 additional recommendations:**

* For each WP, describe what is the current state of the art as well as the relevant technical KPIs (not costs-related)
* Use a table to summarize the information at the end of the section

Work packages:

1. Fuel cell test equipment

Equipment development and validation

1. Testing methodology / Testing standardization

X in the loop testing approach for stack, components, systems and vehicles

1. Testing strategy ( add description of EU proposal )

Test cycle development and optimization to minimize testing time and maximize reliability of test results

1. Global test center energy optimization

Intelligent control and energy management including energy transfer back into hydrogen for minimized energy losses of the test field

1. Development of a passenger car optimized underfloor fuel cell and tank layout for future upgrade of e-vehicles for longer range

(Task with BMW)

1. Validation of testing strategies on prototype fuel cell applications (part of FID?) (BMW)
2. Start-up of integrated H2-production in a combined energy and H2 management system of the total center (FID?)
3. Start-up of the vehicle testing equipment including the fueling station (FID?)
   * 1. Technical locks that prevent improvements in the field

**e2 additional recommendations:**

* For each WP, specify what technical obstacles the sector encounters that prevent further improvements in the field (current limits of the state of the art)
* Use a table to summarize the information at the end of the section

[the description of technical locks must be drafted in technical terms, not market terms]

* + 1. Objectives and technical challenges in the project

**e2 additional recommendations:**

* For each WP, describe in sufficient detail the objectives / innovations that the company aims at in the IPCEI with the associated technical KPIs (the “what?”)
* For each WP, prove that these objectives / innovations have never been met on the market so far (new to the world)
* For each WP, describe in sufficient detail what activities will be carried out to reach the objectives (the “how?”); they have to bring about fundamental novelty in the light of the state of the art
* Use a table to summarize the information at the end of the section, for example:

Reduce test bench installation time

Reduce fuel cell in bench installation time reduction

Reduction of development time

Reduction of development and validation cost

Faster market introduction of a wide variety of FC applications

|  |  |  |  |
| --- | --- | --- | --- |
|  | **What?** | **KPI** | **How?** |
| WP1 |  |  |  |
| WP2 |  |  |  |
| …… |  |  |  |
| …… |  |  |  |

* 1. First Industrial Deployment (FID)

*For each WP describe the FID investment and linked Opex insisting on the description of beginning of FID (after R&D phases) and the end of FID (before mass production).*

*Cf. FID definition in Guidelines.*

* + 1. Purpose of the FID phase

**e2 additional recommendations:**

* According to the footnote (1) to the annex of the IPCEI Communication, “First industrial deployment refers to the upscaling of pilot facilities, **or** to the first-in-kind equipment and facilities which cover the steps subsequent to the pilot line including the testing phase” (our emphasis); please make your choice in one of the two possibilities
* Explain in detail what the objectives of the FID phase are (the “what?”), provide the start date and the end date
* Explain in detail what activities will be carried out to reach these objectives (the “how?”)

Start-up of the test field, validation of the testing strategies and test methods in close to series conditions, validation of the energy management and system interaction including electricity recycling into hydrogen

Validation of reliability of results between different test benches and different test objects using close to series ramp up fuel cell stacks and systems (BMW/ElringKlinger)

Start-up of integrated H2-production in a combined energy and H2 management system of the total center

* + 1. Technical challenges in the FID phase

**e2 additional recommendations:**

* According to letter (g) in the annex of the IPCEI Communication, “the industrial deployment [must] follow on from an R&D&I activity and itself contain a very important R&D&I component which constitutes an integral and necessary element for the successful implementation of the project”; prove that the FID phase has a strong R&D content, i.e. explain and quantify as far as possible the RDI efforts needed to overcome the technical challenges expected during the FID (without a strong R&D content, the FID costs will not be eligible to public funding)
* Use a table to summarize the information at the end of the section, for example:

|  |  |  |  |
| --- | --- | --- | --- |
|  | **What?** | **KPI** | **How?** |
| WP3 |  |  |  |
| WP4 |  |  |  |
| …… |  |  |  |
| …… |  |  |  |

* + 1. Transition from the FID phase to the mass production / commercialisation phase

**e2 additional recommendations:**

* Define which KPIs will be used and the associated values to decide that the FID phase is over and the Mass production / commercialisation starts

Repeatability of tests is in the range of deviation of x%

Test set-up and test bench start up with new test object is achievable in 2 days

Etc.

If the revenue of the test center is reaching x (60) % of commercial testing the FID phase would be finished.

* + 1. Revenues in the FID phase

**e2 additional recommendations:**

* If the company decides to have revenues during the FID phase, provide detailed, convincing explanations why the company consider that the amount of sales during the FID phase should not be viewed as normal sales / commercial activities; explain the nature of these sales during the FID phase: what kind of products will be sold, to whom and for what purposes?
* Note: typically, samples and testing or feedback sales can be reconciled with the concept of FID under the IPCEI Communication; however, important volumes and revenues of sales typically correspond to commercial activities under the IPCEI Communication; the sales shall not be larger that 20% of steady state commercial sales

Validation of testing equipment and validation of testing methodologies and repeatability will engage close to series fuel cell validation work with high risk of testing failure and fuel cell (system) damages. Therefore, FEV will ask for reduced payment of testing time to share the risk of failures and damages with the customer.

Certain tests will be possible to start on commercial basis which will not be expected to be more than x% of the total revenue.

* 1. Intellectual Property Rights

*IP management principles*

*IP protections principles*

*IP exploitation principles*

* + 1. IP management principles

**e2 additional recommendations:**

* Briefly describe here the company’s general IP management principles

To be written by Maximilian?

* + 1. IP protection principles

**e2 additional recommendations:**

* Describe here the IP protection principles that will be followed in the IPCEI

To be written by Maximilian?

* + 1. IP exploitation principles

**e2 additional recommendations:**

* Describe here the IP exploitation principles that will be followed in the IPCEI; please note that the company will be requested to commit to grant licences on IP protected results from the IPCEI on FRAND conditions if it requires a large State aid amount (see below chapter 3 on Spillovers)

To be written by Maximilian and Marius?

* 1. Work Plan

*Please describe your work plan in respect to the described work in the Technical Fields (TF) annex.*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **TF no.** | **WP no.** | **R&D / FID** | **Title** | **Person Months (global)** | **Person Months (R&D&I)** |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  | Total PM |  |  |

Table 1: Work Packages (WP) vs. Person Months (PM)

**e2 additional recommendations:**

* Please remember that FID “must allow for the development of a new product or service with high research and innovation content and/or the deployment of a fundamentally innovative production process”; FID costs will be eligible only if FID activities have a strong R&D content
  1. Investment
     1. Tools and Equipment

*Please cluster your investment by technology classification. Please provide also a brief and simple description of 1 or 2 sentences to the table (what is the purpose of the investment?).*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Technology**  **Classification** | **No. of Tools** | **Examples of Tools** | **Investment Cost [EUR]** | **Year\*** | **TF no.** | **WP no.** |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  | Total |  |  |  |  |

\*Investment year

Table 2: Overview of investment in tools and equipment

**e2 additional recommendations:**

* The costs of plug & play equipment (i.e. not modified by R&D activities) are not eligible because they are considered as part of mass production equipment (no R&D content)
* Only the depreciation corresponding to the use of the instruments / equipment for the IPCEI activities will be considered eligible cost (R&D or FID)
  + 1. Construction of Buildings/Laboratory

*Please provide a brief and simple description of 1 or 2 sentences to the table (what kind of building? for what purpose?). Please cluster your investment so that the table does not exceed 1 page.*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Technology**  **Classification** | **No. of Tools** | **Examples of Tools** | **Investment Cost [EUR]** | **Year\*** | **TF no.** | **WP no.** |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  | Total |  |  |  |  |

\*Investment year

Table 3: Overview of investment in buildings or laboratories

**e2 additional recommendations:**

* Please explain whether the building would be used only for the IPCEI activities or also for other activities / activities carried out after the period covered by the IPCEI

Building might be sized to take some additional test benches after the IPCEI program is finished and the market develops positive

* Only the depreciation corresponding to the use of the building for the IPCEI activities will be considered eligible cost (R&D or FID)

1. Budget
   1. Eligible Costs

*Eligible costs only cover costs made for the purpose and the time span of the IPCEI:*

*• The following costs should be listed in a disaggregate manner:*

*• Costs for each of the R&D activities*

*• Costs for each of the FID activities*

*• And, within the FID costs, the costs of R&D carried out in the FID phase should be mentioned; this could give an idea of the overall importance of the R&D*

*• The cut-off date of the R&D and FID phases should be provided explicitly by each company (The template Excel contains vertical lines, showing these cut-offs, these should be adapted per company)*

*• Eligible costs cover costs up to the end of the FID phase (even if the FID phase goes beyond the national granting period for some companies)*

*• The end result of this step should be one figure: the total amount of eligible costs at the end of the IPCEI, including the FID phase*

*Note: all costs mentioned in the Excel sheet are considered by the Member States as eligible costs under the IPCEI Communication.*

* 1. State Aid

*Indicate the State aid requirement in nominal terms and discounted terms, as well as the anticipated yearly instalments.*

1. Spill-over Effects

Different dissemination levels, ranging from awareness to exploitation, are proposed by FEV to ensure the translation of developments and outputs into new findings and market opportunities. The objective is to reach the fullest range of potential users and uses among research, social, investment and policy makers. FEV developed a specific Work Package in the project’s global Work Plan for planning all dissemination actions.

* 1. Spill-over by non-protected results diffusion

*Publications and communication on IPCEI results*

FEV commits to undertake the following dissemination actions of non-IP protected results from the IPCEI on Hydrogen:

* Share results with the scientific & technological community through conferences / workshops
* Share results with the scientific & technological community through publications
* Share results with the scientific & technological community through the participation to large European research projects (Horizon Europe)
* Share results with the scientific & technological community through R&D collaborations with universities and public research organisations
* Share results with the scientific & technological community through actions in industry associations
* Promote / fund the completion of doctoral work in the field
* Promote / fund the completion of post-doctoral work in the field
* Set up / participate in courses & training
* Set up / participate in apprenticeship programs
* …
  1. Spill-over by IP protected results diffusion

*Kind of licences (rec. Non exclusives FRAND)*

*FEV will indicate all its IP as open for granting licences non-exclusive and on FRAND conditions.*

The IPCEI on Hydrogen is about the development of a complete European supply chain for green hydrogen supply and applications. Each IPCEI partner will develop technological building blocks to develop this European supply chain. Some of them will be IP protected typically through filing patents. FEV is committed to develop Intellectual Property (IP) such as patents. IP creation will range from process technology, general architecture, software and hardware development.

Regarding the exploitation of IP-protected results, only a very low number of exclusive IP licenses deriving from the IPCEI on Hydrogen results is expected. Indeed, the patents that will be licensed will be related mainly to generic technological building blocks; therefore, they will not be blocking for the final products or processes because alternative processes and solutions could be implemented.

In the exceptional case of a request for an exclusive license for commercial exploitation of results from the IPCEI on Hydrogen, the domain and the duration of the exclusivity will be limited. In addition, in case of non-exploitation of the technologies for the application purposes provided for in the license within a reasonable contractual period (in the light of the tests to be carried out), the exclusivity will fall automatically in order not to block the diffusion of new technologies in the involved domain.

Moreover, dissemination policies will be implemented in order to promote and stimulate new approaches regarding the licensing of generic IP building block (avoiding any blocking issues for final product), with a view to serve other application fields through different value chains in order to get wider societal impacts. The IP will be generated with the intent to be as open as possible in order to facilitate the best possible uptake of new technologies from the IPCEI on Hydrogen.

FEV’s IP strategy will also allow for the cross-industrial use of its IP protected results from the IPCEI on Hydrogen.

FEV commits to grant FRAND licences on its IP-protected results to [please name some companies / universities or group of companies].

* 1. Spill-over in FID phases

*Open infrastructures for SMES, RTO, start-up.*

*All build and developed methods tools and infrastructure will be open to be used by SMES, RTO and start-up on a cost share basis if those acitivies contribute to FEV’s FID goals and supports the improvemtn of the installations and methodologies and after the FID phase FEV will give access to the*

Within the project timeframe, FID activities in the IPCEI on Hydrogen will lead to significant spill-over effects in downstream markets, among IPCEI partners but most importantly also beyond them. In general words, downstream markets parties will benefit in many ways from the FID phase. The IPCEI on Hydrogen will enable them to develop new product applications and designs and to acquire specific skills as well as knowhow, which again can be used in cooperation with third parties (inside and outside the IPCEI).

A key asset of the IPCEI on Hydrogen is to embed many players from all along the hydrogen value chain. Additional cooperation programs will bring even more players inside and outside the Members States which fund the IPCEI. This is a strategic advantage that will make easier access to them inside the European Union. FEV’s strong implantation in Germany will attract many actors such as research labs, SMEs, start-ups… in the context of innovation proposals around advanced fuel cells engineering, designs and developments.

The IPCEI on Hydrogen will provide access to next generation fuel cells as well as to new technologies issued from the FID phase to partners, large companies, SMEs and PROs. This will be very helpful for SMEs and PROs (e.g. as listed in the Chapeau document as direct or indirect partner in all Work streams) which want to develop new applications considering the entire lifecycle of high-performance fuel cells. These partners will benefit of an early access to the latest engineering methods and the most innovative testing equipment and will be able to shorten their development time.

Downstream market players (here, mainly car manufacturers) tend to be the main contributors initiating new fuel cell developments: new designs, new technology, new testing equipment, new product. Once the need is known by an OEM, through market studies or direct market request, a feasibility study is launched. Eventually, a decision is made in order to start R&D&I phase. But during the R&D&I phase, the new methods / technologies / testing equipment are not reliable enough. The downstream market is usually not interested to test such innovations at this stage.

Conversely, when entering the FID phase, the innovative methods / technologies / testing equipment have demonstrated their intrinsic value: functionality and reliability and a minimum level of repeatability. Then, some engineering methods / technologies / testing equipment can be translated to downstream markets. Sampling with prototypes, while sharing the risks between the potential end user and the technology provider, can start and continuously involve R&D&I phase in downstream markets: mock-up conception, measurement and testing campaign, additional specification request, data gathering and processing, several generations of prototyping, reliability at application level, are some examples of typical R&D&I activities of downstream market partners.

The FID activities from the engineering companies and the R&D&I from the downstream markets progress in the same time. This is a decisive phase to assess the new technologies and make the downstream markets ready to use them. A successful final stage is when downstream markets initiate their own FID while using the engineering companies’ innovative technologies.

The FID phase will also generate spill-over effects to other industrial partners such as equipment manufacturers present all over Europe. Indeed, in order to support the FID phase, some technological progress will be needed from these industries (e.g. [please provide some examples]). Therefore, they will benefit from their own “Feedback R&D” improving their own equipment, materials and processes.

1. Other positive effect on the market

Increasing the level of R&D and innovations in Europe. *Description of how the project will increase the level of innovation and R&D in the sector and the European economy and society.*

* 1. Impact of the Project on Employment and New Investments in Europe

*Estimation of the quantitative and qualitative impact of your project on direct and indirect employment and training in European economy and society new investments in Europe.*

* 1. Environmental protection and reduction in energy dependence

*Description of the project influence on environment protection and on the reduction of energy dependence.*

* 1. Coordination problems

*Due to scale and complexity of the IPCEI explain the difficulty to work together particulary with:*

* *RTOs (not the same objective)*
* *SMEs, suppliers and customers (it’s easier to work in customer-supplier logic than in a cooperative)*
* *Competitors and sectors actors*

*Explain the difficulty due to the necessity to coordinate such a project with such divergent interests.*

* 1. Imperfect and asymmetric information

*Explain the risks of the project*

*Explain the difficulty to access to market finance*

*Explain the difficulty to recruit*

* 1. Adequacy of the state aid instrument

*Explain whether the state aid instrument is adequate to correct the market failure:*

* *Grant = coordination default and spill over*
* *Financial instrument = Imperfect and asymmetric information*
* *Recoverable advance = risks taken in the project prior to marketing*

1. Incentive effect
   1. Absence of similar projects

*Explain that there is no similar project in Europe.*

* 1. Start date of the project

*Explain that the project did not start before the aid application.*

* 1. Counterfactual scenario

*Describe explicitly the effect of the state aid incentive effect on your company.*

*Describe what will happen when funding will not be realized for the project. If you would not realize the project, how will your company maintain business capacity?*

*There should also be a counterfactual scenario at the overall IPCEI level, in order to understand what happens if the IPCEI would not take place. A counterfactual at IPCEI level could consist in technology developments taking place slower than with the aided IPCEI.*

*Description & substantiation of the counterfactual scenario at company level:*

*• The counterfactual scenario should be described in sufficient detail. E.g. a mere statement that "the company would not undertake the project as planned in its Member State without the aid" is not sufficient. It should be described in detail if it will not undertake the project at all, or will undertake it but in a different manner/extent, or will possibly undertake it somewhere else. As the IPCEI Communication requires, the intended change must be specified (the change in behaviour which is expected to result from the State aid, that is to say whether a new project is triggered, or the size, scope or speed of a project is enhanced; The change of behaviour has to be identified by comparing what would be the expected outcome and level of intended activity with and without aid).*

*• This description can be in the technological field documents, or, if confidential in nature, in the accompanying company level text document.*

*• It is vital to have sufficient substantiation of the counterfactual,* eg.via *authentic internal company documents, showing that the company faces a clear choice and how the decision on whether to carry out the project is taken. This requirement is in line with the documentary evidence required in RDI State aid cases.*

* 1. Increase in R&D and FID efforts

*Explain and quantify the increase in R&D and FID efforts that are triggered by the State aid (in terms of size, scope, speed, risk, collaborations, etc.).*

1. Elaboration on Terms of the Funding Gap Questionnaire
   1. Main hypothesis of the business plan

*Each company should provide all costs and revenues associated with the investment as a whole and the boundaries of investment should be defined from the perspective of the business investor: the calculation should include all (positive and negative) cash-flows for what the investor regards as the investment project, at the time these cash-flows are to be incurred. It is not enough to only submit the eligible costs. For the purpose of calculating the funding gap, what matters are all the costs (eligible or not) associated with the investment project and all the revenues over the entire lifetime including the mass production phase.*

* 1. Necessity of state aid

*Point 28 of the guidelines*

* 1. Proportionality of state aid

*Point 30 of the guidelines*

*Excel sheet calculations:*

*a) In the absence of alternative project:*

*• If the counterfactual scenario is that there is no alternative project, there is no need for a counterfactual project tab with calculations in the Excel sheet. The Commission will only assess the eligible cost and funding gap calculations for the basic scenario.*

*• Proportionality of aid amount per beneficiary company: two step check of the IPCEI Communication in case there is no alternative project:*

*1) Identify the eligible costs: The possible eligible costs are listed in the Annex of the IPCEI Communication. The aid amount for any beneficiary can in no case exceed 100% of the eligible costs;*

*2) Identify the funding gap.*

*In general, the discounted aid amount corresponds to the funding gap. The aid amount can in no case exceed the eligible costs established in Step 1.*

*b) In case of a counterfactual alternative project:*

*• Where there is a counterfactual alternative project, there is a counterfactual tab in the Excel sheet with full calculation of the net present value of the positive and negative cash flows of the counterfactual project.*

*• Proportionality of aid amount per beneficiary company in the IPCEI Communication in case there is an alternative project:*

*Step 1) Identify the eligible costs in the basic scenario: The possible eligible costs are listed in the Annex of the IPCEI Communication. The aid amount for any beneficiary can in no case exceed*

*100% of the eligible costs;*

*Step 2) Identify the difference between the NPV of the alternative project and the NPV of the aided project in the basic scenario.*

*In general, the aid amount corresponds to this difference. In the Excel sheet, it would be convenient to insert this calculation at the bottom of the basic scenario tab.*

*The aid amount can in no case exceed the eligible costs established in step 1.*

*• The funding gap calculation is to be done consistent with the following methodology:*

*• For the purposes of this IPCEI, it is sufficient to provide the Excel sheet calculations for one scenario, the basic scenario (no optimistic and pessimistic scenarios and respective probabilities needed), provided the company is able to justify in the accompanying text document why this basic scenario is the most probable one.*

*• The funding gap that must be calculated is the funding gap of the investment project (i.e. all investment costs and operating costs) to be made by the company for the purpose of the IPCEI.*

*• The investments made for the IPCEI in R&D and FID by a company will generate revenues.*

*• The funding gap is the difference between discounted positive and negative cash flows over the entire economic lifetime of the investment project, i.e. covering the entire period during which the investments made generate revenues / the products that are produced thanks to programme. The investments are sold on the market. Hence, the funding gap must not be calculated only for the duration of the IPCEI project, which is up to the end of the FID phase, but must also cover the ensuing commercial/mass production phase.*

*• One option is to include in the excel sheet the best estimate projections that the company has for this entire period.*

*• Alternatively, companies could provide data for the explicit forecast horizon of the company and give a residual/terminal value (i.e. net present value of expected cash flow beyond the explicit forecast horizon for the remaining years of the economic lifetime), discounted to the current value. In that case, the number of years of mass production for which data are inserted should be realistic.*

*• Practically, in the Excel sheet, after the data for the FID phase and after the data for the reasonable number of years of mass production, a column should be inserted and contain the terminal value for the costs and for the revenues.*

*• Sales/revenues (positive cash flows): projected sales figures should be used by each company rather than a formula. These should be the figures actually used by the company in its business plan and decision making process. This can be best estimate figures. This data should overwrite the formula embedded in the Excel sheet which calculates sales/revenues as a function of costs, an assumption of idle share and an assumption of gross margin. Only if a company has no sales projections or any best estimate data, and only if it actually uses the formula embedded in the sheet (function of costs, idle share and gross margin) in its business plan and decision making process, should it apply the formula.*

*• Cash flows should normally be discounted using the weighted average cost of capital (WACC) of the company. The firm should provide evidence that the discount factor applied is the actual WACC used by the company (e.g. by internal documents showing the applied WACC for investment analysis). The reason to deviate from the WACC usually applied by the company should be explained in detail.*

*• The end result of this step should be one figure: the amount of the funding gap, labelled as such in the Excel sheet.*

* + 1. Firm’s hurdle rate
    2. Project’s funding gap

*Explain whereas the State aid (expressed in gross grant equivalent for non-transparent aid) is not exceeding the funding gap*

* + 1. State aid intensity
    2. State aid cumulation
    3. Open selection proceeding

1. Limitation of distortion of competition and trade
   1. Market affected by the state aid
      1. Definition of the relevant market(s)

*Describe the product / service that will be commercialised, the competing solutions, the targeted applications, the market segmentation, the geographical subdivisions of the market.*

* + 1. Current Industry Sector

*Description of the market situation (EU and worldwide) in this sector (market share, competitors) and recent trends / evolutions.*

* + 1. Market Situation / Share today and after IPCEI

*Estimate your market situation / share (EU and worldwide) and your competitors’ market situation / share (EU and worldwide) today and after the project will have been finished in a nominal scenario of success.*

* 1. No strengthening or creation of market power
  2. Limiting distortion of dynamic incentives
  3. No maintaining of an inefficient market structure
  4. No effect on location activities

1. Annex to the Portfolio
2. *Funding Gap Questionnaire*
3. *(If necessary) Internal Company Documents substantiating the counterfactual scenario*