**IPCEI HYDROGEN – GUIDANCE ON FUNDING GAP CALCULATION AND REPORTING (RDI, FID)[[1]](#footnote-1)**

1. The excel template requires companies to report the following information:
	1. Cost, revenues and capital expenditures that the company incurs because of the project, from its start (typically R&D phase in this case) to the last period the product is on the market (end of mass production phase). This is the standard approach to calculate the NPV of a project, based on company-level cash flows;
	2. A breakdown of the financing sources of the project into loans, equity and grants or other aid instruments. Companies must demonstrate that the private and public funding ensure the implementation and subsequent financial sustainability of the project. If companies have not yet secured financing at the time of preparing the excel template, they can fill in lines 150-154 based on their intended sources of financing for the specific project or the standard company-level financing policy.
2. Please note the following with regard to the attached template:
	1. In the case of a company’s project composed of multiple sub-projects, companies must report a separate template for each sub-project in addition to the aggregate one. By sub-project, the Commission services mean a group of RDI and/or FID activities leading to the production and commercialization of a certain innovative product/service or process. For each sub-project, the excel template must report the costs of these activities (e.g. capital investments, RDI expenditures, operating costs) as well as all the revenues from the commercialization of the final innovative product/service and or process (see 4.b.v and 4.b.vi for the duration of the planning period). To facilitate the understanding of a company’s project, the Commission services expect companies to fill in an additional template reported in the Annex to this document. This additional template aims to identify:
		* Which FID work package follows from which RDI work package;
		* Which final product or service follows from which FID work package;
		* The duration of each work package as well as the commercialization phase of the final product or service or process;
	2. The length of the planning period reported in the template, as well the duration of the R&D, FID and mass production phases, are just examples and not suggestions. Companies must adjust these parameters depending on the characteristics of their own projects, which have to be duly justified (see also 4.b.v and 4.b.vi);
	3. The excel template contains input data, input formula and built-in formula cells. Company must insert their own data in the first type of cell, their own formulas in the second type, while the third type will automatically populate once the necessary data become available. Please do not alter this cell classification.
3. In addition to the information to be reported in the project portfolio, please accompany the excel template with:
	1. Authentic and genuine internal company documents (should these documents contain sensitive information, please rest assured that they will be treated strictly confidentially) to justify:
		* Costs, revenues and capex (e.g. internal business plan, minutes of board meetings, presentations to the board, etc.)
		* Quantities of products sold and sales prices (e.g. market studies and analysis, own market intelligence, company surveys to customers, etc.)
	2. A text (e.g. an additional annex to the project portfolio), as well as additional documents if necessary, providing explanations on the following
		1. Depreciation criteria;
		2. WACC. The Commission expects companies to use their own internal WACC and to justify it. The justification consists in demonstrating that the internal company WACC results from the following formula:

$WACC= \frac{E}{D+E}\*\left(r\_{f}+β\*ERP\right)+\frac{D}{D+E}$\*($r\_{f}+DP)\*(1-T)$

In addition, companies must also provide all the parameters in the formula above (E = equity, D = debt, $r\_{f}$ = risk-free rate, β = equity beta, ERP = equity risk premium, DP = debt premium and T = tax rate), together with their sources and the methodology to determine them.

We note that the use of the WACC formula above rules out the possibility to add a “top-up” risk factor to the discount rate to account for the specific characteristics of the project.

If companies do not sufficiently justify their own WACC, the Commission services may construct a benchmark WACC based on publicly available data (at sectoral level) and use it to verify the reliability of the WACC provided by the company;

* + 1. Tax rate (line 105 of the excel template);
		2. Changes in net working capital (line 106 of the excel template), if any;
		3. Product lifecycle, from its launch to the projected last year of sales (including the duration of the R&D, FID and mass production phases);
		4. Calculation of the terminal value. Since the Commission services expect companies to report the cash flows of the project for its whole lifetime (from the start of R&D to the last year of sales), the terminal value can be calculated as the value of long-term assets at the end of the planning period. Companies may use the residual book value of assets as a proxy. If the cash flows in the excel template do not cover the entire lifetime of the project, for example because companies find it difficult to make credible forecasts at long horizons, the Commission services may also consider as appropriate the use of a project terminal value instead of the asset terminal value indicated above. The project terminal value is the result of the following formula (Gordon’s growth formula):

$$TV= CF\_{T}\frac{(1+g)}{WACC-g}$$

Where TV is the project terminal value, $CF\_{T}$ is the after tax cash flow in the last year of the business plan, g is the perpetual growth rate of cash flows starting from the last year of the plan and WACC is the company’s internal WACC used to calculate the funding gap.

* + 1. Link between the internal company documents in 3.a and the data reported in the excel template. The company must elaborate on how to translate their own documents, such as the internal business plan and market studies, into the costs, sales and capex figures reported in the excel template.
1. Since the Commission services expect the figures in the excel template to result from internal company documents prepared for the decision to undertake the IPCEI project, subsequent changes to the numbers in the excel template will not be accepted except in case of genuine errors.
2. The maximum amount of aid according to the IPCEI Communication is equal to the funding gap, subject to the eligible costs cap. If Member States intend to grant aid through instruments different from grants (e.g. loans, repayable advances), they must demonstrate that the gross grant equivalent of these aid instruments (GGE) is not higher than the maximum aid amount according to the IPCEI Communication. Member states must also explain the calculation of the GGE.

**ANNEX: TEMPLATE SHOWING THE LINK BETWEEN RDI, FID AND FINAL PRODUCT**

The templates below aim to facilitate the understanding of a company’s project, especially when it is composed of multiple work packages (WPs) and leads to multiple final products. The Commission services expect companies to show the structure and timeline of their projects, from the RDI phase to the commercialization of the final product. To illustrate the template, please consider the three examples below.

Example 1: Company with one RDI and FID WPs and one product

|  |  |  |
| --- | --- | --- |
| **RDI** | **FID** | **PRODUCT** |
| WP1 (2020-2022) | WP2 (2023-2026) | A (2027-2035) |

Example 1 refers to a company with just one RDI work package (WP1) and one FID work package (WP2), which result in a final product that will be in mass production phase from 2027 to 2035.

Example 2: Company with two RDI WPs, one FID WP and one final product

|  |  |  |
| --- | --- | --- |
| **RDI** | **FID** | **PRODUCT** |
| WP1 (2020-2022) | WP3 (2023-2026) | A (2027-2035) |
| WP2 (2020-2022) |

Example 2 refers to a company with two RDI work packages (WP1 and WP2) whose outcomes are aimed to be used for one FID work package (WP3). This FID work package will then result in a final product that will be in mass production phase from 2027 to 2035.

Example 3: Company with four RDI WP, two FID WP and two final products

|  |  |  |
| --- | --- | --- |
| **RDI** | **FID** | **PRODUCT** |
| WP1 (2020-2022) | WP5 (2023-2026) | A (2027-2035) |
| WP2 (2020-2022) |
| WP3 (2020-2022) |
| WP4 (2020-2024) | WP6 (2025-2028) | B (2029-2037) |

Example 3 refers to a company with two sub-projects. The first consists of three RDI work packages (WP1, WP2 and WP3) followed by a FID work package (WP5) and resulting in product A. The second sub-project consists of one RDI work packages (WP4) and one FID work package (WP6), which will lead to final product B. For this type of company, the Commission services expect a separate template for each of the two sub-projects.

Please note the following:

* The template must include all the work packages described in the project portfolio;
* The final innovative product/service or process (whichever is applicable) must be described in sufficient detail;
* The duration of the work packages and commercialization phase are only for illustration purposes. Companies must fill in the template based on the characteristics of the work packages they intend to carry out. With regard to the mass production phase, its duration must correspond to the whole expected lifetime of the product (see 4.b.v and 4.b.vi above).
1. Based on “GUIDANCE AUTUMN IPCEI BATTERIES -Update Nov 2019” [↑](#footnote-ref-1)