

IPCEI ON MICROELECTRONICS II – INFORMAL GUIDANCE ON SPILLOVER EFFECTS

Disclaimer: this Guidance has been drafted for the sole purpose of facilitating the pre-notification process of the Autumn IPCEI on Batteries but may equally be used for the forthcoming IPCEI on Microelectronics II. Statements and opinions given in this note are tentative and do not necessarily represent the only possible interpretation of current EU legislation. This Guidance does not bind the Commission services and does not prejudice any future Commission assessment.

The Commission services have been thoroughly assessing the important IPCEI requirement for substantial spillover effects and dissemination activities as presented in the individual project portfolios and the Chapeau. In order to facilitate the coordination of the IPCEI in this regard and speed up the process of submitting a complete Chapeau, we hereby provide certain recommendations, based on the principles enshrined in the IPCEI Communication, concerning the way spillover effects and dissemination activities can be presented in the Chapeau.

Although this Guidance is addressed primarily to the German authorities, given their role as IPCEI coordinators, all participating Member States are strongly encouraged to provide the necessary support and information to the German authorities, if needed, for the purpose of finalising the Chapeau.

As the assessment of the project portfolios under the pre-notification phase is still on going, this Guidance is based on the information currently available.

1. Point 17 of the IPCEI Communication requires: “[th]e benefits of the project must not be limited to the undertakings or to the sector concerned but must be of wider relevance and application to the European economy or society through positive spillover effects (such as having systemic effects on multiple levels of the value chain, or up- or downstream markets, or having alternative uses in other sectors or modal shift) which are clearly defined in a concrete and identifiable manner”.
2. In this regard, in the context of the spillovers section of the Chapeau, we assess the nature and scope of the dissemination activities as such and how they contribute to creating spillover effects stemming directly from the overall project. That said, any macro-economic (spillover) effects, namely job creation or any environmental benefits do not constitute part of this analysis but they should nevertheless be assessed separately either as part of the section on the contribution of the IPCEI to EU objectives or as part of the section on the importance of the IPCEI.
3. The following segments must be presented and elaborated in a concrete and identifiable manner:
 - a. Dissemination activities for the IP non-protected results of the research;
 - b. Dissemination activities for the IP protected results of the research;
 - c. Dissemination activities during the FID phase; and

- d. Dissemination activities beyond the targeted sector.
4. The direct participants at company level and the Chapeau at integrated level must show a significant level of commitments in undertaking the dissemination activities envisaged. No legal evidence of such commitments is needed (at this early stage). The IPCEI governance structure will verify implementation of the undertaken commitments and those activities will be reported, as appropriate, in the annual general reports on the IPCEI and/or in the annual reports to the Commission by the participating Member States.

Dissemination activities for the IP non-protected results of the research

5. The direct participants must show the increased value of their dissemination activities with the IPCEI as opposed to a situation without the IPCEI. The following table can be used as a template in the Chapeau to provide aggregated data:

KPI	Target value per year without <i>EuBatIn</i>	Target value per year during <i>EuBatIn</i>	Direct Participant
Industrial publications			
Papers and presentation for conferences			
Collaborations with end-users			
Company internal events (workshops, seminars)			
Exhibitor at Conferences			
Organizer of external Events			
Funding of Ph.D Studies			
Funding of Master Thesis			
Financed University Chairs			

6. Participation in external events (such as conferences, fairs and exhibitions) must be concrete (e.g. names of the events) and quantifiable. Direct participants must explain whether they participate as contributors (presenting the type and results of their research) or as organisers. Events that are organised on ad hoc basis, as a result of the IPCEI are looked at favourably. The Chapeau shall provide a list of all events mentioned in the different project portfolios, the topics discussed and the names of the companies contributing or attending. In addition, in percentage and aggregated terms the Chapeau shall provide the level of companies' participation in such events inside and outside their Member State.
7. The same applies to workshops and seminars organised (throughout Europe and not only in the participating Member States) within or by industry associations (such as the European Battery Alliance) or to the participation of the direct participants in various clusters with the aim of sharing acquired skills and information.
8. The collaborations of direct participants with the academia and research organisations merits a separate focus. Such collaborations must be specific and quantifiable, displaying a national as well as an international dimension. The Chapeau shall provide

a list of all these organisations, the names of the direct participants involved in each collaboration and a short description thereof. Moreover, in percentage and aggregated terms the Chapeau shall provide the level of companies' participation in such collaborations inside and outside their Member State.

9. In the case of scientific publications, the Chapeau shall provide a list of these publications and the names of the respective journals, which would be made available in Europe.
10. In the case of financing of MSc and Ph.D. theses and University chairs, the Chapeau shall provide details concerning the scope of this financing, a brief description of the domain concerned and whether such financing goes beyond the Member State of the aided company.
11. Most of the participants should also commit to inform the general public in Europe of the activities performed and the results achieved due to the IPCEI. The Chapeau shall provide a list of such activities (e.g. dedicated websites, informative press releases, social media, open days, promotional material, publication of articles, interviews etc.) describing also briefly their scope.
12. Some individual project portfolios refer to specific internal activities for the employees and stakeholders. The Chapeau shall provide the purpose of such activities and list the dissemination materials (e.g. internal training, newsletters, general meeting etc.).
13. Some project portfolios refer to participation in EU programmes. The Chapeau shall describe the scope of this participation and provide a short description.
14. Few project portfolios refer to collaborations with end users. The Chapeau shall describe the scope of these collaborations and provide a short description.

Dissemination activities for the IP protected results of the research

15. At this stage, there are insufficient commitments concerning the dissemination activities of IP-protected results. Although the majority of participants plan to patent some of the expected innovations, just over half clearly commit to license their proprietary findings with other actors, for example along the battery value chain. In addition, we see large discrepancies amongst individual projects on the consideration of these particular dissemination activities. Therefore, we suggest that the Chapeau considers to elaborate on the following (indicative list):
 - a. Refer to all direct participants committing themselves to non-exclusive licensing of their R&D results at FRAND conditions to all interested parties **in Europe** (e.g. partners, customers, SMEs, RTOs etc.);
 - b. In case of patent creation, point (a) equally applies;
 - c. Describe situations where direct participants choose to establish a partnership or a joint venture for specific applications;

- d. Describe situations where direct participants interact with academic institutions and RTOs for the use of the IP (e.g. in order to carry out research projects);
- e. Describe situations where direct participants enter into confidentiality agreements with other users of the IP (e.g. with SMEs for testing prototypes);
- f. Describe situations where the use of the IP protected results may lead to the development of standards.

Dissemination activities during the FID phase

16. As with the IP protected results, we observe many different approaches amongst the individual projects as regards the nature of the dissemination activities and the level of commitment. We suggest that the Chapeau considers to elaborate on the following (indicative list):

- a. Collaborations with SMEs, RTOs, start-ups and other indirect partners for knowhow exchange and other supporting activities in the development of a project idea, the validation of first results and the implementation of new solutions during the scaling-up of the project;
- b. Standardisation activities for SMEs and start-ups;
- c. Open infrastructure policy (access to SMEs, RTOs and start-ups, provision of pilot lines for R&D purposes, advocacy, research, touring, testing of prototypes etc.);
- d. Collaborations with academic institutions for validation of results, provision of training, provision of research contracts etc.;
- e. Collaborations with European OEMs, suppliers and customers and recycling companies (feedback loop and know-how sharing, testing, data gathering, sampling);
- f. Procurement of materials and components and access to of laboratory capacities at market conditions.

Dissemination activities beyond the targeted sector

17. As mentioned above under point 1, the benefits of the project must go beyond the sector concerned and have a wider relevance and application to the European economy. However, we observe that less than half the project portfolios clearly intend to generate spillover effects outside the targeted sector of the battery value chain. Even in the context of this low figure, the dissemination activities do not seem to have been described in a concrete and identifiable manner. Therefore, we suggest that the Chapeau considers to elaborate further in this regard and specify in concrete terms the dissemination activities that can be used to target other applications (e.g. showcase initiatives). This applies to the three categories of spillover-enabling activities described above. Indicatively, we have observed (amongst the project portfolios) the following applications outside the battery value chain: UPS, powertools, medical applications, telecom industry, high-tech industries, system integration companies,

energy storage devices, non-automotive applications, pharmaceutical industry, forestry and agriculture, food industry, mining, smart energy, raw material suppliers, chemical industry, equipment manufacturers, application of IoT combined to recycling, shipping and aviation etc.