

Important Project of Common European Interest (IPCEI) on Microelectronics

Non-paper on "Spillover effects"

Disclaimer: this non-paper has been drafted for the sole purpose of facilitating discussions within the Microelectronic IPCEI Working Group. Statements and opinions given in this paper are tentative and do not necessarily represent the only possible interpretation of current EU legislation. This non-paper does not bind the Commission services and does not prejudice any future Commission assessment.

IPCEI Communication

The IPCEI Communication mentions "spillover effects" twice.

In general terms, spill-overs are mentioned in the second paragraph of the Communication, which states that "*IPCEIs may represent a very important contribution to economic growth, jobs and competitiveness for the Union industry and economy **in view of their positive spillover effects on the internal market and the Union society.***"

More specifically, spill-overs are one of the general cumulative eligibility criteria under section 3.2.1 of the Communication. Paragraph 17 of the Communication stresses "*The 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.***"

Discussion and reference points

It derives from these principles in the IPCEI Communication that spillover effects must be identified:

- 1) beyond the participating Member States ("*European economy or society*");
- 2) beyond the aid beneficiaries ("*not be limited to the undertakings*");
- 3) beyond the sector(s) in which the aid beneficiaries are active ("*... or to the sector concerned*").

Each one of these 3 dimensions should be taken into account.

Also, the spillover effects must be positive (i.e. not negatively affecting non-participating Member States, undertakings, or sectors) and they must be defined precisely ("*concrete and identifiable manner*").

In order to achieve such results, it is likely that the aid beneficiaries will have to go the 'extra mile' as compared to their normal business activities, and commit to activities and initiatives that go beyond their routine or normal commercial relations or marketing activities¹.

It may be noted that the concept of spillovers, while in a different context, is mentioned in the R&D&I Framework ("*knowledge spillovers*" in paragraph 49, in the meaning of externality). The R&D&I rules and case practice provide useful reference points that could be considered in identifying ways to ensure spillover effects beyond the direct participants to a R&D&I project.

For example, the concept of '*dissemination*' is used in several occasions and can make reference to teaching, publication or knowledge transfer. Dissemination will be deemed to be 'wide' when it is carried out on a non-exclusive and non-discriminatory basis, for example through open-access databases or open publications. In the case of IPRs, access should be granted to third parties, for example by way of non-exclusive licenses, under market conditions.

Some practical examples concerning dissemination may be found in the Commission decision on case SA.39457 concerning a R&D project in the UK. Dissemination in that case was ensured *inter alia* through the sponsorship of PhD students and outreach activities such as conferences, public presentations, workshops and television interviews.

Other examples can be found in the Commission decision on case SA.37743 – a programme in France on micro-electronics, which provides for the dissemination of both IPR-protected and non-IPR-protected results.

Spillover in the R&D&I field can also be follow-on or parallel R&D&I activities that will be triggered by the IPCEI project beyond the partners and Member States in the IPCEI. Such spillover effects can be new project that are contingent on the IPCEI project. Although information on such spillover effects may be difficult to obtain at this stage, any estimation and some concrete examples of follow-on projects could be considered. In the same vein, estimations of the indirect jobs that may be created as a result of the IPCEI could be mentioned.

To sum up, while inspiration could be taken from the rules and practice in R&D&I, they should be **considered as a minimum** since the logic of the IPCEI Communication is different and the requirements are evidently more stringent due to the general rationale of IPCEIs and the fact that they can also cover the First Industrial Development phase and may benefit from the highest possible aid intensity. Hence, since the IPCEI Microelectronics provides for aid for First Industrial Deployment, there must be spillover effects specifically from the First Industrial Deployment also.

Useful elements in practice

In an IPCEI context, one has to consider different scenarios, due to the diversity of the partners involved and the wide-ranging nature of the Project, going beyond a 'normal' R&D&I initiative.

¹ Every cooperation or information-sharing must comply with existing EU antitrust rules

In general terms, the **best available approaches and methods to ensure wide dissemination** should be considered, taking into account the **3 dimensions** (Member States, undertakings, sectors) provided by the IPCEI Communication.

Examples of dissemination initiatives of the R&D results may include:

- participation in established international conferences, ensuring wide coverage – also taking due notice to geographical balance - in terms of Member States (beyond the notifying Member States) and sectors involved;
- organisation of dedicated outreach events, such as roadshows, also targeting SMEs;
- publications; both scientific ones and targeted at wider audiences;
- involvement of trade associations, chambers of commerce and other intermediary bodies, including at EU level;
- active involvement of research organisations (beyond those directly participating in the Project) and of the academic community, sponsorship of PhDs;
- promotion of results in the framework of standardisation bodies;
- access to IPR-protected results and technology in terms aligned as closely as possible with recognised Fair, Reasonable and Non-Discriminatory (FRAND) terms, also considering the need to facilitate use in different sectors.

The **First Industrial Deployment** in the IPCEI should also result in positive spillover effects, again taking into account the 3 key dimensions (Member States, undertakings, sectors).

In general, all specific initiatives to ensure that positive spillover effects will take place should be clearly defined, e.g. milestones, performance indicators and reporting arrangements should be duly considered.

Spillover effects in the IPCEI Microelectronics

In the IPCEI Microelectronics, there are strong indications that the Research Organisations, foundries and existing clusters will generate spillover effects throughout the Union, beyond the partners and Member States involved in this IPCEI, but each Industry participant should in principle also undertake additional actions in view of achieving positive spillover effects.

When it comes to knowledge spillovers, three different scenarios may be looked at:

- RDI knowledge that is not protected by Intellectual Property Rights (IPRs);
- RDI knowledge that is IPR protected;
- First Industrial Deployment.

RDI knowledge that is not protected by IPRs

RDI knowledge that is not protected by IPRs needs to be widely disseminated. In the Chapeau draft, is it mentioned *inter alia* that dedicated roadshows and workshops will be organised. It is important to provide, to the largest possible extent given the available information, relevant details on these

events, including the target audiences, and examples on the type of knowledge which will be disseminated in these occasions in order to show that they will be able to result in positive spillover effects. The same reasoning applies to other methods for disseminating knowledge, for example by the partner research organisations.

RDI knowledge that is IPR protected

An effort should be made, not only by foundries but all Industry participants, to ensure that knowledge and results that are IPR protected will be shared beyond their usual customers, beyond the usual IPR arrangements, across the specific value chain and across value chains in the whole EU. Member States should clarify how IPR protected knowledge will benefit other undertakings outside this IPCEI. To the largest possible extent, access to IPR protected technology should be granted under FRAND terms.

First Industrial Deployment

As regards First Industrial Deployment, possible suggestions of actions aimed at generating spillover effects beyond the partners involved in the IPCEI and beyond usual customers, may be the following:

- where possible, considering to serve companies that want to be customers, whatever their size (small potential customers tend to experience difficulties to be accepted), also outside the company's usual ecosystem;
- where possible, considering to give access to manufacturing facilities against a market fee;
- giving Product/Software Design Kits (e.g. to smaller design companies), which goes together with giving access to a manufacturing facility;
- disseminating timely information on the results of the testing phase;
- putting in place a form of one-stop-shop access to the manufacturing facilities, through the so-called "multi-project wafer" mechanism, which could stimulate the diffusion of the innovation developed in the IPCEI.