

Non-Paper on Market/Systemic failures

1. Disclaimer

This non-paper has been drafted for the sole purpose of facilitating the pre-notification process of the IPCEI Advanced Semiconductor Technologies. Statements and opinions given in this document 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.

2. Introduction

According to point 3 of the IPCEI Communication (C 528/12), Important Projects of Common European Interest (IPCEIs) “*make it possible to **bring together knowledge, expertise, financial resources and economic actors from across the Union, in a bid to address important market or systemic failures or societal challenges that could not otherwise be addressed***”.

Therefore, an IPCEI “*must demonstrate that it is designed to **overcome [these] important market or systemic failures**, preventing the project from being carried out to the same extent or in the same manner in the absence of the aid, or societal challenges, which would not otherwise be adequately addressed or remedied*” (refer to point 15 of the IPCEI Communication (C 528/12)).

A **market or systemic failure** is an **inefficient market outcome** (from the point of view of maximising social welfare and not only benefit to an individual company) due to **specific features of a market for goods and services**. As part of demonstrating the market/systemic failures affecting the whole IPCEI and the participating individual projects, it is important to justify **why the market on its own would not provide the desired outcomes** from the point of view of maximizing social welfare. **It is important to note**, that a **distortion of the market by other political actors**, e. g. by dispersing extensive aid, **does not** constitute a market failure.

In this regard, **participating Member States have to choose the aid instrument** (e.g. grant/interest rate subsidy, loan/repayable advances/reimbursable grant, guarantee, tax advantage or tax exemption, risk finance or other) with a view to the identified market failure(s) or other important systemic failures.

For each **individual project** participating in an IPCEI, it is **mandatory to provide information**, in the respective section of the project portfolio (here Chapter 6), which of the **market failures** listed and briefly described below **affects the individual project**. After explaining the specific market failure that affects the specific project, it is **necessary to specify respectively how the state aid** for the specific project as part of the IPCEI **would be appropriate to address them**.

It is important to note, that the mere existence of market failures is not sufficient to prove the necessity of State aid.

3. Types of Market/Systemic Failures

3.1 Negative externalities

Negative externalities may occur, e.g., when **a company does not bear the full cost of the harm** they impose on society.

An example includes **negative environmental externalities** where companies do not bear the full cost of pollution they impose on society, which leads them to the use of more polluting/energy consuming/etc. technologies. In this context, the objective of State aid would be to promote 'cleaner'/less energy intensive/'less polluting highly innovative' etc. technologies.

It is important to note, that here it is necessary to demonstrate how **the technology or solutions developed** by the individual project **would lead to a use of a 'better' technology** than what would otherwise be used in terms of, for instance, environmental effect. This must **be duly justified**. In this regard, the simple support for the reduction of CO₂ emissions by modernizing production processes/regular updates cannot be addressed in an IPCEI (see point 23 IPCEI communication), but may fall under other set of rules (e.g., Guidelines on State aid for climate, environmental protection and energy - CEEAG¹).

3.2 Positive externalities

Positive externalities may occur, e.g., when a **company provides benefits to society**, which it does not fully internalize.

An example of positive externalities is when a company's **innovation efforts may benefit other companies because new knowledge diffuses outside the company** providing R&D, through social and business interactions, for instance in the form of regional development, or because of employees moving across companies.

However, neither are all benefits of R&D&I activities externalities, nor does the presence of externalities alone justify state aid. In general, users/consumers are willing to pay for the direct benefit of new products and services while companies can appropriate the benefits from their investment through other existing instruments, such as intellectual property rights. In some cases, however, those **means are imperfect and leave a residual market failure** that may be corrected by state aid.

It is important to note, that positive externalities are different from positive spillover commitments as mentioned in the IPCEI communication: **positive externalities are the wider social benefits inherent to specific individual project**, not just the actions the aid beneficiary commits to share the outcomes of its project.

3.3 Coordination failures

Coordination failures **may prevent the development of a project or its effective design due to diverging interests and incentives among investors**. As an example, this is the case when **multiple actors must simultaneously invest and ramp up production** in order to commercialize a new technology.

Coordination failures may also stem from the **need to reach a certain critical mass of investors** before it is commercially attractive to start a project. As an example, this is a particularly relevant aspect in (cross-border) infrastructure projects.

The strategic interaction between the various necessary actors may then require state intervention to coordinate actions and align incentives, in order to deliver R&D&I or to accelerate investments.

¹ https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.C_.2022.080.01.0001.01.ENG&toc=OJ%3AC%3A2022%3A080%3ATOC

It is important to note, that organisational complexity, managerial issues and firm-specific inefficiencies are not in itself a coordination market failure.

3.4 Asymmetric information

When **companies or potential innovators are better informed than investors (or banks)** about the true prospects of their projects, companies may **face difficulties to convince investors (or banks)** about the prospects of their projects and ultimately lack access to capital.

It is important to note, that it is necessary to **provide project-specific arguments of why the investors and banks may not be able to appropriately assess the value of the individual project**, thus providing for the financing necessary for it on market terms. Each claim has to be supported with appropriate evidence (e.g.: correspondence and refusal to grant a loan / guarantee from a commercial bank). The threshold for demonstrating a lack of access to capital is anticipated to be more stringent for large companies in comparison to SMEs.

In addition, in case state aid takes the form of direct grants, it is necessary to justify how loans instead would not be sufficient to alleviate asymmetric information.

3.5 Other market failures

The above described market/systemic failures are not exhausted. Thus, other significant market failures that the specific project may be experiencing and addressing can be added in the according section of the project portfolio.

However, **organisational complexity, business difficulties, technical complexity, uncertainty, or company-specific inefficiencies are not in themselves a market failure.**