

**Consultation on Communication on State Aid for Innovation**  
**Reply from EECA (European Electronic Component manufacturer's Association) through ESIA, EDIA and EPCIA.<sup>1</sup>**

*Question 1) Do you think that it is appropriate not to create a separate Framework for Innovation and that the new possibilities for State aid target selected innovation-related activities?*

Yes. It is appropriate to only target selected innovation-related activities, in order to avoid aiding regular business activities not related to innovation. Because these selected innovation-related activities will often be closely and indistinguishably be related to other activities (e.g. R&D) covered in the existing Frameworks, it is better not to create a separate Framework for innovation. This is also consistent with the Commission's recent integrated innovation/ Research Action Plan

*Question 2) Do you think that the problems presented in Annex and the market failures identified by the Commission as hampering the innovation process are accurate? If so, why? If not, why not?*

The Annex of the Communication identifies some of the aspects negatively affecting the climate for R&D and innovation in Europe. It also observes that the US, Japan and emerging technology competitors in East Asia are improving their ability to put together major resources, infrastructure and funding to attract researchers and investments for innovation, whereas the EU is becoming less attractive for the location of R&D and innovation is not so much due to fragmentation and insufficient policy coordination, as stated in the Annex of the Communication, but to the very existence of strict State aid rules and controls in the EU, whereas these don't exist elsewhere. This global dimension is completely lacking in the Commission's State Aid Action Plan.

Actually, EU rules on state aid for R&D should foster a level playing field, not only within the EU, but also worldwide. In the face of global competition, companies in the EU should not suffer – as they currently do – from a disadvantage vis-à-vis their competitors outside the EU, where rules and controls on R&D subsidies generally do not exist and generous incentives schemes often apply (*See incentive comparison table in annex from ESIA's Competitiveness Report*). Therefore, while ensuring the efficient functioning of the single market, the Commission should avoid imposing state aid rules on companies within the EU that hinder fair competition at the global level. At the same time, the Commission should seek to establish a global level playing field through the WTO.

*Question 3) The measures described in this Communication provide ex-ante criteria on the basis of which State aid for innovation would be approved. Do you think that such an approach is adequate?*

Yes. However, whereas an economic approach and an analysis of market failures may be appropriate for determining such ex-ante criteria, they are – as the Commission rightly acknowledges – in practice not workable for assessing individual aid schemes and projects notified to the Commission.

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<sup>1</sup> See back for descriptions

*Question 4) Stakeholders are invited to provide empirical evidence about the appropriateness of authorising State aid to large companies, in particular in connection with the objective of developing clusters around poles of excellence in the EU. Do you think that the Commission should develop ex-ante rules allowing State aid for Innovation to the benefit of large companies, or that such type of aid should always be subject to a case-by-case stricter analysis on the basis of a notification to the Commission? As far as support to innovation (or other state aid) is concerned, would it be appropriate to distinguish between different categories of large companies? If so, on the basis of which criteria? And for which purpose?*

There are several reasons for allowing aid for large companies and SMEs alike for the selected innovation-related activities, just as for R&D:

- The basic economic rationale for State aid for innovation applies equally to large companies and SMEs: due to the public good characteristics of innovation and its positive externalities, which don't allow private enterprise to reap the full benefits of its actions<sup>2</sup>, industry will invest less in innovation than desirable for Europe's economy and society.
- Large firms have increasingly become conglomerates of smaller units that are being held accountable for their financial performance. Due to the tough business climate and the pressure for profitability, they are subject to the same short-termism that leads many SMEs to under invest in innovation.
- An important new paradigm in Open Innovation<sup>3</sup>. It refers to the trend of companies increasingly building on internal and external sources of ideas to create value from innovation. Firms that can harness outside ideas to advance their own business while leveraging their internal ideas outside their current operations will likely thrive. For this purpose, large firms, SMEs, universities and research institutes will need to work together in ecosystems for Open Innovation. Actually, SMEs often flourish in the slipstream of large companies, in particular in regional clusters.
- Large firms play a pivotal role in national innovation systems and regional clusters by mobilising the significant financial and human resources typically required for successful innovation, by accumulating and disseminating knowledge, and by bridging that knowledge to innovation to economic value, growth and competitiveness. For many major innovations such as GSM and the CD and DVD systems, the sheer clout of the large companies involved has proven a key success factor. Similarly, the investments needed for the latest semiconductor R&D and fabs require the involvement of major companies. Furthermore, they bridge local innovation systems to global technological developments and markets. Therefore, it would be counterproductive and in practice unworkable to exclude large firms from aid schemes promoting collaborative R&D and innovation and the establishment of regional clusters and Open Innovation ecosystems around Poles of Excellence. In fact, such exclusion would weaken Europe's global competitiveness. With large firms often acting as the engines of collaborative R&D projects and the catalysts of innovation networks, pulling in SMEs as partners or subcontractors, also SMEs would suffer from an exclusion of large firms from state aid for innovation.

<sup>2</sup> See paragraph 14 of the Commission's Communication.

<sup>3</sup> "Open Innovation; the new Imperative for Creating and Profiting from Technology", Henri Chesbrough, Harvard Business School Press, 2003.

- Europe is seriously falling behind the global competition in terms of R&D investments by the private sector, not only by SMEs, but also by large companies: three recent reports<sup>4,5,6</sup> on Europe's
- top companies in terms of R&D expenditure confirm that on average they not only lag behind their global competitors in the size of their R&D efforts, but also in the growth thereof. In the context of the Lisbon Strategy, the Barcelona European Council of 2002 agreed on the objective of increasing overall R&D spending to approach 3 % of GDP by 2010, with two-thirds of the investments to come from the private sector. With overall R&D spending in 2003 stagnating at 1.93 % of GDP, of which still only 55 % funded by the business sector, and with SMEs accounting for only 22 % of business R&D<sup>7</sup>, Europe cannot possibly expect to catch up with global competition and achieve the 2 % Barcelona objective for private sector R&D investments by only boosting R&D by SMEs, as this would require a fivefold increase of their R&D efforts by 2010. Clearly, also Europe's large companies will need to be stimulated by financial support and other measures to increase their expenditure on R&D, and likewise on innovation. For semiconductor manufacturing, the sector is largely made up of larger companies which act as enabler for other large business, with a clear benefit for the whole society<sup>8</sup>. In the semiconductor industry the R&D efforts required to stay in the business are huge. The EU needs to help the large enterprises in making the EU a strategic choice to invest in R&D and innovation.
- No distinction should be made between different categories of large companies, as technologies, industries and markets are increasingly converging (e.g. ICT-nano-bio-cogno), and the most interesting innovations tend to stem from multi- or cross-disciplinary cooperation. Therefore, it would be wrong to exclude certain categories of large companies from aid schemes aiming at collaborative R&D and innovation, or to treat them differently.
- If need be, substantial amounts of aid to large firms in single-company projects exceeding €100 M may be assessed on the basis of a notification to the Commission, rather than establishing separate ex-ante rules on State aid for innovation to the benefit of large companies. In that case, however, the Commission should not be too strict when requesting evidence in relation to the requirement that aid for R&D and innovation has a clear incentive effect and leads to activities in addition to a firm's normal day-to-day operations. The Commission's interpretation of this requirement should not put European companies at a competitive disadvantage *vis-à-vis* their competitors located outside the EU, who are not suffering from comparable constraints. In practice, it is very difficult to prove that certain R&D and innovation activities are carried out in addition to normal day-to-day operations. In any case, we strongly recommend that the Commission should not *a priori* disqualify aid for R&D and innovation projects that fall within a firm's core business or which have clear market potential.

*Question 5) Stakeholders are invited to provide empirical evidence about the appropriateness of authorising State aid to non-technological innovation, notably in services sectors*

Using a wider definition of innovation entailing also non-technological innovation would make it very difficult to define sufficiently precise and unambiguous State aid rules for innovation that would guarantee a level playing field within the Union.

<sup>4</sup> "2004 EU Industrial R&D Investment Scoreboard", European Commission; see <http://eu-iriscorboard.jrc.es/index.htm>

<sup>5</sup> "Global R&D Spend 2002-2004", Cientifica; see <http://www.cientifica.com/www/details.php?id=45>

<sup>6</sup> "2005 R&D Scoreboard", DTI, see [http://www.innovation.gov.uk/rd\\_scoreboard/](http://www.innovation.gov.uk/rd_scoreboard/)

<sup>7</sup> "Key figures 2005 on Science, Technology and Innovation – Towards a European Knowledge Area", European Commission, 2005; see [ftp://ftp.cordis.lu/pub/indicators/docs/2004\\_1857\\_en\\_web.pdf](ftp://ftp.cordis.lu/pub/indicators/docs/2004_1857_en_web.pdf)

<sup>8</sup> See ESIA 2005 Competitiveness Report, e.g. ps 27-29, under website <http://www.eeca.org/esia.htm>

*Question 6) Should the rules on State aid for innovation include regional bonuses for cohesion purposes? Should they differ according to the geographical situation of the region, irrespective of cohesion issues?*

The regional bonus system in the current Community Framework for State aid for R&D is too complex.

*Question 7) Are some types of aid more suited to specific situations and specific innovation activities (ex: tax rebates, R&D related tax credits, secured loans, repayable advances)?*

Because of the refund obligations, repayable loans will have much less of an incentive effect for taking on additional risks than grants, a generalized R&D-spending linked tax credit as part of a sectoral approach for semiconductors or tax rebates.

*Question 8) Do you agree with the proposed criteria to define innovative start-ups, with the approach of not defining eligible costs, with the amounts of aid and cumulation rules? Do you think that different eligibility criteria should be established for high-tech sectors like biotech and pharmaceuticals, which have long time-to-market and product development cycles?*

In allowing and granting aid to innovative start-ups, it should make no difference whether these start-ups originate from universities, institutes or (large) firms. In addition, no difference should be made between sectors, as technologies and markets are increasingly converging (e.g. ICT-nano-bio-cogno), and the most interesting innovations tend to stem from multi- or cross-disciplinary cooperation.

*Question 9) Beyond the proposed rules, empirical arguments are welcomed that demonstrate the need for State aid: i) for start-ups independently of the innovativeness criterion, and ii) for innovative SMEs established for more than [5 years].*

*Question 10) Do you think that other types of State aid apart from those currently granted in respect of risk capital are required in order to help European SMEs grow beyond the start-up phase? If so, which ones?*

*Question 11) Do you think that these provisions would produce the expected effects in terms of encouraging SMEs to launch innovative products in the market? If not, what changes should be made to these rules?*

An aid intensity of 15 % can only have a very limited incentive effect. To really encourage industry to launch more innovative products in the market, the aid intensity should be increased.

Actually, the current state aid rules for R&D are still based on the long outdated linear innovation model. To foster and reflect modern interactive, iterative and concurrent innovation processes with continuous feedback from the market and close interaction between knowledge creation and application, the obsolete, artificial distinction between “industrial research” and “precompetitive development” should be abandoned. Instead, a single category “industrial R&D” with an allowable aid intensity of at least 50 % should be created, including prototyping, software, testing and trials



*Question 12) Is there evidence that these provisions should be extended to large companies? Do you think that notification should be required for measures granting substantial amounts of aid to individual firms or individual sectors? If yes, above what amount? What empirical evidence should then be requested by the Commission?*

- Because of the same arguments as for question 4, no distinction should be made in these provisions between SMEs and large firms.
- If need be, substantial amounts of aid to large firms in single-company projects may be assessed on the basis of a notification to the Commission, with the same caveat regarding the assessment of the incentive effect as mentioned under question 4.

*Question 13) How would you regard specific support for innovation intermediaries which merge or develop a joint venture to reach critical mass in a technological field of specialisation? Should investment aid be permitted in this context? If so, on what conditions? What other measures could be envisaged?*

Any criteria on size would not lead to a disincentive to grow and reach critical mass. Actually, irrespective of their size, innovation intermediaries that provide open access to services and infrastructures contributing to the establishment of a fertile ecosystem conducive to Open Innovation processes are in the common interest and deserve public support, directly for the innovation intermediaries for any activities that are clearly not market-oriented, and indirectly for the users of the services provided by the innovation intermediaries.

*Question 14) Is there evidence that the recruitment by SMEs of other types of highly skilled personnel should be also aided?*

Exchanging and migrating researchers – as prime carriers of tacit knowledge – between the public sector and the private sector is a key instrument for Open Innovation. Therefore, schemes fostering the mobility of researchers between academia and industry should be aided and should apply to SMEs and large firms alike.

*Question 15) Should the Commission adopt specific rules for cases where a researcher chooses not to return to his/her home university or where the university no longer intends to hire him/her back?*

No.

*Question 16) What definition of cluster/clustering activities should be followed and what criteria should be used to distinguish clusters from the broader category of innovation intermediaries?*

According to Professor Michael Porter, “a cluster is a geographically proximate group of companies and associated institutions in a particular field, linked by commonalities and complementarities”<sup>9</sup>. In our view this constitutes an appropriate basic definition.

<sup>9</sup> “On Competition”, Michael E. Porter, Harvard Business School Press, 1998, p. 199.

*Question 17) Do you think that State aid should be allowed to promote European centres of excellence? If so, what type of State aid, for what reasons, and subject to what conditions? What other, possibly better, measures could be envisaged?*

In the case of clear European added value, the derogation foreseen in Article 87.3.b of the EU Treaty for major projects of common European interest should apply, in particular for centres of excellence in the context of European Technology Platforms, Joint Technology Initiatives, intergovernmental programmes such as EUREKA, or national programmes fully open to participation from other Member States.

*Question 18) Are additional criteria needed to avoid State aid being fragmented and to encourage the concentration of resources in a limited number of poles of excellence?*

Poles of excellence should have a clear focus and secure a critical mass, *inter alia* by providing fair chances to SMEs and large companies alike.

*Question 19) What are your views more generally about the need for additional provisions for infrastructure that supports innovation (e.g. in the field of energy, transport etc.)?*

- ICT – and in particular the semiconductor sector - is a key enabler of R&D in almost all areas of Science and Technology and of innovation in almost all sectors of the economy. With investments and R&D so much lagging with respect to the US and with so crucial for boosting productivity growth and addressing societal challenges<sup>10</sup>, stimulating investments in ICT infrastructure is of particular common interest for Europe and fully in line with the Commission's i2010 initiative<sup>11</sup>.
- The infrastructure of the future, the electronic highways providing broadband access, have often not been considered as eligible for support, since the commercial interest is so strong in urban areas. The European Union's more remote and rural areas thereby risk being left behind in a widening Digital Divide. It is important that state aid rules do not put any obstacles in the way of a critical upgrading of strategically important ICT infrastructure projects.

*Question 20) Do you think that large firms should be entitled to State aid, e.g. to establish research facilities in a European pole of excellence? Should the Commission try and develop specific criteria to control such State aid? What type of economic evidence should be requested to analyse the necessity of such State aid?*

- Innovation facilities and infrastructures contributing to the establishment of a regional ecosystem for Open Innovation in Europe are in the common interest and deserve public support, also when established by large companies. Actually, large firms often play a pivotal role in such regional innovation systems, for example by means of facility sharing and through Open Innovation centres, allowing for single-site execution of major collaborative industrial R&D projects.
- Public support for large firms is also in order for measures to promote subcontracting to and co-makerships with SMEs.
- Any ex-ante rules authorising State aid for collaboration and clustering should not be restricted to SMEs, universities or research institutes. Also large firms should remain fully eligible for aid for (collaborative) R&D, as in the current Framework for State Aid for R&D. See arguments under question 4.

<sup>10</sup> "Key figures 2005 on Science, Technology and Innovation – Towards a European Knowledge Area", European Commission, 2005; see [http://ftp.cordis.lu/pub/indicators/docs/2004\\_1857\\_en\\_web.pdf](http://ftp.cordis.lu/pub/indicators/docs/2004_1857_en_web.pdf)

<sup>11</sup> "i2010 – A European Information Society for growth and employment", COM(2005)229.

ANNEX: Tax & investment incentives comparison from: ESIA – 2005 *Competitiveness Report*, p. 47.  
See next page.

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*The European Semiconductor Industry Association (ESIA), the European Display Industry Association (EDIA) and the European Passive Component Industry Association (EPCIA) are represented under the electronic component umbrella of EECA. They represent respectively the European-based manufacturers of semiconductor devices, picture tubes and LCD industry, and passive components including capacitors, resistors, ferrites chokes, inductors and RFI components.*

*In 2004, EECA industries supported over 226 000 direct jobs in Europe, in a market valued at €47.7bn.*