“Global Review of Innovation Intelligence and Policy Studies”

Innovation Policy Workshop #7

“Review of the Framework for State Aid for Research and Development and Innovation”

Report

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Summary

I/ Background and objectives of the workshop

In November 2006, the European Commission adopted the new Community Framework for State for Research and Development and Innovation (2006/C 323/01) (hereafter: the R&D&I State Aid Framework). In this framework, as well as the Commission maintaining its favourable approach to State Aid to R&D in general, it included measures for innovation for the first time in the framework of State Aid. This inclusion is made *implicitly* through an extended definition of the experimental development phase of an R&D project. It is also made *explicitly* through the inclusion of precise activities, which are clearly intended to address some of the market failures that can hamper innovation. The innovation measures covered by the framework are aid for:

- industrial property rights costs for SMEs;
- young innovative enterprises;
- process and organisational innovation in services;
- advisory services and innovation support services;
- the loan of highly qualified personnel, and;
- innovation clusters.

The R&D&I State Aid Framework entered into force on 1 January 2007, and a General Block Exemption Regulation was adopted in July 2008. This gives automatic approval for 26 categories of aid measures including aid to SMEs, research, innovation, regional development, training, employment and risk capital. These concern several components of the R&D&I Framework, especially those related to innovation such as aid for:

- industrial property rights costs for SMEs;
- advisory services and innovation support services, and;
- (partially) young innovative enterprises.

Further, other aid measures for SMEs can also be used for innovation purposes (aid to investment, aid for consultancy costs).

A mid-term review of the R&D&I Framework is foreseen in 2010. The results of this workshop will be used to contribute to this reviewing exercise. In addition, the workshop discussions will be relevant for the preparations of the Future European innovation plan.

The general objective of this workshop was to examine experiences of the application of the R&D&I State Aid Framework for innovation measures from the perspective of national administrations / agencies and enterprises (or other beneficiaries). The aim was to explore how well adapted the rules of the R&D&I State Aid Framework actually are to the needs of innovation stakeholders in the Member States. Thus the workshop aimed at gathering experience on developing and implementing schemes under the categories set out in the State Aid framework - especially innovation categories - and including those in the general block exemption. (Therefore, it has not focused on individual notifications.)

II/ General thoughts on the framework

Rationale & regulatory approach

It can be stated that the general State aid regulatory framework is based on two underlying rationales:

- Competition: ensuring fair and sufficient competition, setting a level playing field and rules of the game and eliminating barriers;
- Addressing / correcting market failures by State intervention and favouring activities which are likely to produce public good.

The EU framework is quite unique compared to what is currently implemented across the world, due to the experience of establishing a single market involving several states. In most countries, state aid is assumed to pursue public goods (related to a specific challenge) and thus is not subject to global regulation. Most national regulations are programme specific; for example the *Small Business Innovation Research and Technology transfer programmes* (SBIR / STTR) in the US, the *Innofund* in China or the *Grant for Application of Industrial Technology Innovation* (for start-up companies) in Japan. In these countries, competition regulation can be extended to cover State Aid but only in multinational agreements.

The European Union is not a nation state, but a co-operation between states, that is why we state aid rules have been adopted. The EU needs to articulate governments support activities towards private companies in order to prevent protectionism and major market distortions while addressing socio-economic challenges.

Hence the Community framework encompasses four main aspects:

- Notifications based on common guidelines (R&D and innovation, environment, etc.)
- Application of various block exemptions (GBER, Structural funds, etc.)
- General exemption of non-economic activities and services of general economic interest, SGEI (education, health care, defence, etc.)
- Common activities targeting European interests (Public good), and thereby exempt by default (ESA, EU FP7, etc.)

These reflect the nature of the European Union, which has features both that of a multinational agreement and that of a State.

It should be remembered that a worldwide regulation could be considered through multinational agreements. In this respect, there used to be rules at WTO level but they disappear leading to a blurry situation. Could the EU be more active on the global scene to define international rules for R&D and innovation aids (and thereby ensuring a levelled playing field for undertakings operating in and from Europe)?

It was argued during the workshop that if the EU argue in the WTO for a level playing field, that might result in stronger rules. It is not implausible that, in the long run, the WTO may contradict EU R&D schemes.

Clarity vs Flexibility

It has often been argued that the current framework required some improvements in terms of definition and clarifications. Clarification of various current rules and their interpretation would ensure visibility and stability.

On the other hand, some level of uncertainty (lack of definition) is acceptable as it leaves a certain room for manoeuvre and good judgement. Otherwise, the framework would transform into a strict EU regulation where the Commission would just give orders. Current rules already give consequent power to the Commission and exemptions barely aim at limiting this power. A more definite framework might also lead to an infertile harmonisation of national schemes in the EU.

Still, flexibility is positive but involves further work in terms of justification and notification. It was also argued that because of this, Member States, for safety and practical reasons have already harmonised their schemes.

The implementation of new schemes and instruments is a delicate process that requires not only evaluation ex ante but real experimentation within a secured environment for national agencies.

This uncertainty and workload also leads to a possible overuse of *de-minimis*[1] whereas the objective of this specific measure is not to facilitate the implementation of sectoral or thematic aid scheme.

III/ Implementing the framework: some feedbacks

The following reports various feedbacks from participants on experiences of the application of the R&D&I State Aid Framework.

The initial remark related to the risk of was to wonder whether because of the crisis, state aid is captured by companies' rescue.

Another main observation is that despite criticism on ceilings, most programmes and schemes apply levels of aid below current maximums allowed. Several explanations are proposed.

First, agencies work with limited funds so cannot apply high levels of funding. As budgets are limited, and tend to reduce, there is little risk of overspendings. The second reason is related to the issue of uncertainty as addressed in the previous section. It is stated that the lack of clarity and possible wrong interpretations, especially about limits and ceilings, lead to excessive precautions from the implementing organisations. Some policy makers are enticed to limit themselves below the official levels in order to avoid notifications. There is actually room for manoeuvre in the existing framework and limits have not been pushed yet.

In some countries, single notification is not used at all but only thematic and sectoral schemes, clusters, etc. Also, grant to R&D projects is the most frequently used instrument (sometimes the only one). Aid for innovation support services is also often implemented, but in many cases national agencies use *de-minimis* for support services instead of block exemption because it is easier and entails lower administrative costs (the same apply for technical feasibility study).

Skills development is not financed through state aid for R&D&I as it seems that agencies are able to implement such actions with basic R&D funding. As a consequence, National support agencies don't use many training / loans for mobility types of instruments.

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[1] Ceiling below which aid is deemed not to fall within the scope of Article 87(1) and is therefore exempt from the notification requirement laid down in Article 88(3). Aid of no more than EUR 200 000 granted over a period of three years is not regarded as state aid within the meaning of Article 87(1).

Some Member States tend to abandon subsidies type of State Aid in favour of lighter instruments (loans, vouchers, etc.). In this respect, they wonder whether these should be treated more favourably than genuine grants through the framework.

Justification and notification of State aid requires appraising R&D market prices and potential distortion; however a proper research market does not exist in Europe, which makes this task difficult to carry on. This is particularly problematic when assessing the market price of a collaborative project including public and private organisation as some might apply a margin and others not (see next section).

IV/ Exploring new aspects of innovation

The main issue addressed here is to better recognise and address new and emerging R&D and innovation activities.

One of the first assertions made during the workshop is that dealing with novelty with a 10 year framework could be considered as a contradiction. It could hardly help managing novelty because it is too directive. The main issue here is to make sure that framework is “up to date” and relevant for all Member States’ needs and priorities, and enable them to find new paths and share it with other countries (and the European Commission).

The definition of R&D and its relevancy is still a key question. As an example, it was noticed that in the UK, R&D survey or UK tax credit regulation only consider technical research (related to natural and physical sciences) which is very different from the Frascati manual. Many aspects of innovation have been highlighted in the last couple of years, such as interactions design, user-driven innovation, Knowledge Intensive Business Services (KIBS), creative industries & entertainment, organisational innovation, business models, distributed innovation, etc.

However, the framework for State Aid for R&D&I is still working with a linear definition of innovation processes (research, experimentation, piloting, demonstrators, etc.). Sometimes research and experimental development are carried out in parallel or innovation even starts from the market (survey, finding IPR, etc.). During the 2006 State Aid reform discussions, this question was addressed but it seems that the Member states did not support the idea of leaving the linear innovation process approach.

Dynamic aspects of innovation activities are very important. New innovation processes may require a new time horizon for state aid schemes. Accordingly, should we allow high levels at the beginning of projects and then to go back to the more strict rules? Although this is an enticing suggestion, time limits can be quite hard to implement.

As was observed in the previous section, grants to R&D projects are most frequently implemented within the State Aid framework. Thus, one could wonder whether design activities, user-driven innovation etc. are best integrated into the R&D framework? Or maybe another category? The risk with the current use of the framework is that, in order to have full support from public authorities, companies may oversize their R&D activities instead of carrying out other key business activities (marketing, design, etc.). In this respect, there is a need to think more commercially when considering public support activities to innovation.

Some development agencies such as TEKES are willing to develop schemes integrating research, product development, marketing and new competences /organisation. This however can lead to legal problems because the supported activities would be too close to the market. For example, how to bring end-user into state aid (especially problematic when considering service innovation[2])? This issue would probably need some clarifications or new interpretations of the framework. It would also probably involve impact analysis.

More integrated schemes would allow financing new ways of thinking, models, etc. rather than specific / individual projects which are less relevant as regards new aspect of innovation. Organisational innovation is maybe the most difficult to be supported through State Aid. It appears that the provision is too restrictive (ICT) and public organisations are facing difficulties finding relevant projects. Actually there are few projects proposed that cannot be financed. This would involve giving higher more money on a longer term (check book instead of single voucher).

There is also some political reluctance to finance (non technological) organisational innovation as it is known for leading to employment reduction (even though this can be the case for industry but not for services).

Lastly, mobility loans should focus more on non-technological competencies (but knowledge management, project coordination, etc.). Professional mobility and skill development should be seen as targets for the EU and not as exemption.

Another issue raised during the workshop was the role and scope for intervention for creative industries. Because of the crisis, industries such as multimedia etc. might want more public support than they used to. However, targeting creative industries can be difficult for State Aid for R&D&I as they see themselves as artists and not always as entrepreneurs. In this respect, they often pay no attention to funding opportunities in terms of R&D and other type of public financing. Creative industries look for one shot funding, not new models.

V/ New organisational settings & collaborative arrangements

One of the main difficulties that have been underlined during the workshop was related to R&D activities conducted in various collaborative and open innovation environments. It appears that new organisational settings are blurring the lines between public and private, between small and large enterprises, between public good and private benefits, etc. which can complicate their implementation and justification in accordance to the framework for State Aid for R&D&I.

It is first important to notice that we are not operating into a genuine open innovation environment but a combination of closed innovation systems. In this respect, it is important to keep in mind that state Aid should not support collaborative initiatives that may reinforce barriers to entry or result in oligopolistic situations.

The impact of Networks, alliances, etc. should be evaluated in terms of market distortions but with the right scope of analysis (national, EU, world).

One of the most significant sorts of collaborative arrangement is the cluster which is covered by the current framework through a specific measure (*Aid for innovation clusters*). The framework definition of a cluster is much broader than the ones used by various Member States. The reason is that there are numerous forms of cluster type of arrangement, some are well structured but some have no legal entity or no physical facilities. Clusters are often acting as inno-platforms and provide innovation services, enhanced mobility, etc which are

[2] To be supported, services need to fulfil three criteria: replicability, market scalable, planned separate activity (even if not specific R&D division)

eligible to be financed by State Aid. This raises the issue of complementarities between various funding and cumulation of State Aid.

One of the main problems is that implementing such arrangement can take one year of consultation with the Commission which is quite a lot when considering a 5 year project (the same applies when structuring a JTI / Alliance). Instead of clusters, the Framework could include dispositions for permanent types of collaborative arrangements.

Other forms of platforms such as Living-labs or KICs seem to be more easily financed through public funds because they hosted by public organisation (universities) and can solicit other forms of state (for example regional funds).

It is obvious that the framework could not define each sort of arrangement, especially when collaboration involves public and private stakeholders (what is market based and what is not, etc.). This issue of economic versus non-economic is a real concern for implementing agencies and beneficiaries (even if defined in the treaty, so very difficult to change).

The initial statement was to consider that activities carried out by public research organisations should not fall into state aid rule. But more and more, these organisations are carrying economic activities. For example, if a university offers paying services, then they are part of the market and should not be supported (licensing and spin-off are also economic activity). Also, research contracts should be considered as economic activity. In most cases, collaborative research includes research and economic activities and the boundary is sometime difficult to identify.

Public procurement is another matter discussed during the workshop. It appears that buying R&D services from private sector should not always be considered as State Aid. There is an official statement but difficult to find and would benefit from clarification (needs clarification / compilation of existing rules and guidelines).

VI/ State Aid to support growth and SMEs

The main rationale for enhancing support to SMEs and economic growth through State Aid relies almost certainly on the current incapacity to reach the Lisbon target fixed in 2006 (3% of GDP allocated to R&D spending, 9% growth for industry, etc.). It was even argued that this matter best characterizes a major market failure in Europe.

The main issue here is to define the role of public funding in this 3% objective and how State Aid rules can be used to influence companies' investments.

It is also important to remember that public spending, considered as citizen's money, is deemed to look for substantial social impact. In this respect, limiting the justification to technological failure may not be sufficient and causality (leverage affect) between research, innovation & growth should be more explored, especially when considering SMEs. Also, such money should only be used as additional funding.

In terms of support to SMEs & innovation, the General Block Exemption Regulation *Young Innovative Enterprise* (YIE) is considered as a useful tool for supporting SMEs' innovation activities. Considering that small grants to SMEs do not distort market even less bureaucracy or control could be envisaged.

Defining a Young Innovative Enterprises is somehow an intricate exercise. Actual guidelines only apply to small companies (under 50) so not all SMEs are covered by this specific measure. Should YIE be small? This is not so obvious...

In the US, YIE start with 5 to 10 people and after 5 years often 50 people (but these enterprises face a high kill rate). As a comparison, Finnish start-up companies gather 1 or 2 people after five years 5 people (it is similar on most EU countries). This phenomenon may be caused by a certain risk aversion and a predisposition to start small and gradually grow without massive investment.

The 6 year timeframe can also be challenged. In many cases, after 6 years, a YIE should have more than 50 employees and would not considered as young anymore (otherwise it means that the project was not a success / innovative). On the other hand, some specific sectors require more staff and more than 6 years to create a mature enterprise.

The difficulty for policy-makers / implementers is identifying ex ante which company is innovative and potentially high growth. How to ensure the company is innovative, especially in services? Actually, money should go where there is place for experiment and growth and this is not always YIE.

Another observation is that most young innovative enterprises carry out very little technological research activities but still present a high potential for growth. Biotech is different because it requires big starting investment and long term returns (Pharmaceutics industry is out of the scope). In order to improve their impact in terms of growth & development, State Aid for SMEs may better not target high-tech sectors. YIE GBER would be matched with more classic R&D funds if the company is carrying high level of research.

After 6 years, or earlier if a sector is particularly dynamic, the supported companies should progressively turn towards more risk capital type of funding.

Case study: TEKES project for private incubators

The initial statement was that funding was only part of the solution and that knowledge, skills and experience could not merely come from collaboration with universities or counselling.

In order to stimulate a core experience, a new program is being developed for private incubators where, in addition to seed funding, serial entrepreneurs are invited to provide services to young enterprise (competence scheme).

A third stage consists in risk capital type of investment. A fourth programme would relate to internationalisation (need more private investors which are often outside Finland).

This plan illustrates the need for a combination of several schemes and milestones when tackling with SMEs creation and development.

Which instruments?
No equity from TEKES (as another agency does) just grants and soft loans
Bank are solicited to providing bridge funding
Stop funding intermediaries but companies who choose their provider in a list of certified service providers (demand-led policy)
An alternative is to open tender or provide directly the service

One last remark concerned the fact that very little policy or schemes are specifically targeting microenterprises. Some of the biggest challenges are:

- Legal framework for microenterprises to hire specialised personnel, etc.
- Lack of community patent
- Weight of bureaucracy (filing applications, files, etc.)

- Legal framework in universities, spin-offs, etc.

VII/ Recommendations & conclusive remarks

The following assertions have been gathered during the last session of the workshop. They have not been endorsed by every participant.

Need for clarification / decision practice:
(But avoid losing flexibility and the opportunity to find new types of initiatives, arrangements, etc.)

- Cluster / long term arrangement concepts
- Indirect state Aid (especially collaborations)
- How to deal with IPR (especially SMEs)
- Legal certainty (final beneficiaries, independent undertaking): how much required?
- Relation to public procurement, especially pre-commercial procurement
- Economic vs non economic activities
- Problem related to user-involvement
- Research organisation & Company boundary
- Modalities for shared facilities
- Clarify through experience / examples in practice / frequently asked questions
- Remove misapprehensions

Potential changes:

- Flexible innovation support
- Openness on clusters
- Intensity level for IPR Shared infrastructure
- Carrying impact assessment prior to changing rules
- Cumulation clause vs YIE
- Feasibility studies to be broaden beyond technical studies
- Higher ceils for grand societal challenges?
- More tracking system / statistic data for state Aid
- Simple, low administration equivalents to *de minimis*
- Specific provision for micro, small, medium, etc.
- Article 5: certification by external auditor. Could the agency do this directly for beneficiaries
- Types of Aid
- Time of instruction and shift ex post evaluation
- Evidence on market failure?

A general comment to these two lists is that there seems to be a lot of requests from implementing organisations, especially in terms of adjustments, whereas it appears that the limits of the current framework have not been reached yet. On the other hand, few proposals were made on IPR intensity and feasibility study.

One should also pay attention to the interrelation between Framework and GBER.

To conclude, there is an apparent need to continuously improve and especially clarify the interpretation of the current rules. The great challenge is to help people better understand the framework and learn lessons from practices in other member states (experience sharing). This could entail a collection of good practices published by the Commission but with the risk of formatting national schemes. Preferably, the EU would support continuous experimentation (and impact assessment) and the development of an open share platform animated by independent experts in order to avoid apprehension from stakeholders (i.e. not the European Commission).

There is also a need to undergo a more fundamental analysis of the current approach to evaluate and indentify possible long term alternative approaches. In this respect, a widespread stakeholder consultation is needed and appreciated.

VIII/ List of participants

Steen Frederiksen
Ministry of Economic and Business Affairs - Chief Counsellor

Michel Ganoote
OESO - International Department, European Delegate, Strategy and Development

Eoghan Hanrahan (cancelled)
Enterprise Ireland, Investment Services - Sustaining Jobs Unit

Alexander Hantosi
VINNOVA, The Swedish Governmental Agency for Innovation Systems

Lorenz Kaiser
Fraunhofer-Gesellschaft, Division Director Legal Affairs and Contracts

Elfriede Kober
Austria wirtschaftsservice Gesellschaft - Head of EU Affairs & International Consulting

Monika Konikowska-Wójcik
Polish Agency for Enterprise Development - Director of Legal Service Unit

Antonello Lapalorcia
Ministero de lo Sviluppo Economico - Directorate General for Productive Development and Competitiveness (DGSPC)

Elaine Morrison (cancelled)
Scottish Enterprise Innovation Systems Manager

Kaie Nurmik
Ministry of Economic Affairs and Communications – Innovation Division

Dave Pieters
Ministry of Economic Affairs Directorate-general Enterprise and Innovation, Policy Advisor

David Rose
Department for Business, Innovation and Skills - State Aid Branch Assistant Director

Jari Romanainen
TEKES - executive director

Michael Rothgang
Rheinisch-Westfälisches Institut für Wirtschaftsforschung - Deputy Division Chief "Enterprises and Innovation"

Margarete Rudzki
EUROCHAMBRES - Advisor European Affairs

Adrián Sánchez
Legal Counsel - Centro para el Desarrollo Tecnológico Industrial (CDTI)

Maarten Sileghem
Innovatie door Wetenschap en Technologie (IWT) - Directeur Strategisch en Europees Onderzoek

Adrian Toschev
Federal Ministry of Economics and Technology - Unit EA6 - State Aid

Jan van den Biesen
Vice President, Philips Research Public R&D Programs

<u>European Commission</u>

Davy Berghmans
DG RTD – Unit C2 Private Investment and technology platforms, Policy Officer State Aid and Competition policy

Richard Cawley
DG RTD – Unit C2 Private Investment and technology platforms, Policy Officer Economic analysis & fiscal incentives

Peter Dröll
DG ENTR - Unit D1 Innovation policy development, Head of Unit

Lennart Grundberg
DG ENTR - Innovation Policy Unit D1 - Innovation policy development

Almoro Rubin de Cervin
DG COMP – Unit A1 Private enforcement, Case Handler - State Aid - Administrator

Carlos Tenreiro
DG COMP – Unit H2 R&D, Innovation and risk capital, Deputy Head of Unit

Marie-Laure Wyss
DG ENTR – Unit B2 Industrial Competitiveness Policy, Policy Officer Competition and Industrial Policy - State Aids

<u>INNO-GRIPS Team</u>

Louis Lengrand
Louis Lengrand & Associés, Managing partner

Ian Miles
Manchester Institute of Innovation Research (University of Manchester), Professor

Alain Quévreux
Association Nationale Recherche Technologie (ANRT), Head of Europe department

Hugo Thénint
Louis Lengrand & Associés, consultant