

Mutual learning exercise (MLE) on national practices in widening participation and strengthening synergies

Topic Report:
Skills development, information,
communication and training
(Topic 4 Widening)



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MLE Widening participation and strengthening synergies: Topic Report: Skills development, information, communication and training (Topic 4 Widening)

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Mutual learning exercise on National practices in widening participation and strengthening synergies

Topic Report:

Skills development, information, communication and training

(Topic 4 Widening)

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FOREWORD

This document has been prepared under the auspices of the Policy Support Facility (PSF) set up by DG Research and Innovation under H2020 to support countries in reforming their research and innovation (R&I) systems. It is one of a series of reports drafted as part of a Mutual Learning Exercise (MLE) on 'Widening Participation and Strengthening Synergies' (WPSS).

Widening participation in the Framework Programme (FP) can help countries tap into their unexploited R&I potential and improve overall R&I system performance.

Ensuring and strengthening synergies between activities supported by the FP and those supported by European Structural and Investment Funds (ESIF) can improve the overall efficiency and effectiveness of public funding for R&I and enhance the performance of R&I activities.

Thirteen countries (Belgium, Bulgaria, Cyprus, Croatia, Hungary, Latvia, Poland, Portugal, Slovenia, Sweden, Spain and Turkey) are actively participating in the MLE, with Germany participating as an Observer.

The schedule for the MLE called for Challenge Papers covering different aspects of 'Widening' and 'Synergies' to feed into discussions at a series of four workshops, prior to the production of Topic Reports based on these discussions and relevant material contributed by participating countries.

The aspect of 'Widening' covered by this Topic Report is Topic 4: 'Skills development, information, communication and training'.

1 Introduction

Participating in the EU Framework Programme (FP) brings many potential benefits to the research actors involved and ultimately to the whole research system of a country:

- a) Accessing complementary expertise or infrastructure not available domestically;
- b) Getting additional funds for carrying out research that cannot be funded domestically;
- c) Pooling forces to address research questions that require a critical mass of resources beyond what is available domestically;
- d) Developing the skills and capacity of researchers to access external expertise and cooperate across borders;
- e) For companies, monitoring new S&T developments and accessing new knowledge and technologies that can lead to product or process innovation;
- f) Fostering interaction between public and private actors to facilitate knowledge transfer; and
- g) Improving the visibility and reputation of domestic research on the international scene.

Low participation rates, especially, but not only, for 'Widening' countries, mean missed opportunities to capture such a wide range of benefits.

The High Level Expert Group on the Ex-post evaluation of FP7 mentioned the following hindering factors for participation in FP: *"information and language barriers; lack of professional contacts and research networks; lack of leading Universities and Research organisations leaders in proposal matters; limited understanding of FP7; weak training in preparing successful proposals; insufficient motivation to participate in FP7; lack of practice in project management; little experience in cross-country cooperation; generally low focus on R&D in policy and in business; few options for exploitation of research results at the national level."*

Two overarching determinants of the intensity of a country's participation in FP can be singled out: on the positive side, the quality, relevance and levels¹ of endowment of domestic research; on the negative side, the (often much) lower success rates in FP compared to national/regional programmes. Besides these factors, there are important entry barriers into the FP of another nature: the difficulty of accessing relevant 'tacit' information on FP, and the lack of skills to participate. In other words, there is a difference between excellence in research and innovation as such, and excellence in designing, acquiring and implementing research projects within the FP. There is a need to pay attention to the latter to break a vicious circle of low participation-low experience-low success in FP. Solutions cover strategies, incentives, schemes and mechanisms to increase both the demand for FP participation and success rates.

The focus of this report is on solutions, to be developed at a national level, to address those barriers to entry into the FP that relate to information shortage and skills deficits.

¹ High levels (and easier accessibility) of national public funding of R&D can also, the other way around, generate the unwanted effect of decreasing the attractiveness of FP for domestic researchers. A similar effect does exist in situations where ESIF funds dedicated to R&D are widely accessible.

The report is the result of a workshop held in Madrid on 10-11 January 2018 as part of the EU Policy Support Facility (PSF) Mutual Learning Exercise (MLE) devoted to widening participation to the FP and enhancing synergies between the FP and the European Structural and investment Funds (ESIF). The focus of this report was identified as a priority issue when the MLE was designed by the participating countries. A background 'Challenge Paper' was prepared before the workshop as a basis for discussion. During the workshop, MLE participants from Member States (MS) and Associated Countries (AC) presented and shared good practices that attempted to overcome informational and skills barriers to participation in FP.

The scope of the 'Skills development, information, communication and training' topic is detailed in section 2. An overview of the landscape of existing practices under the topic is presented in section 3. Lessons learned from exchanges at the workshop and from evidence on existing practice are exposed in section 4. The final 5th section concludes with the main findings from the MLE and suggests ways forward in terms of solving informational and skills deficits and enhancing participation in FP.

Contributions from participants from MS and AC, as well as contributions on Ireland from Helena Acheson, an expert in this MLE, are gratefully acknowledged, as are the helpful comments provided by the other experts involved in the MLE process. All workshop presentations as well as additional information on the cases referred to in this report can be found on the PSF website:

<https://rio.jrc.ec.europa.eu/en/policy-support-facility/mle-widening-participation-and-synergies-between-horizon-2020-and-esif>

2 Scope

2.1 Definition of the topic

The 'Skills development, information, communication and training' topic focuses on all means and instruments implemented by national and regional authorities with the aim of better equipping the national research community with information and skills to participate in the FP. The ultimate goal is to get more research actors involved, to increase their chances to submit and become involved in successful proposals, and also to increase the proportion of those actors who act as coordinators. The target group covers both researchers in the public sector (academia, public research centres) and in the private sector (SMEs in particular).

In the scoping and kick-off workshops, participants to this MLE mentioned issues that they want to consider under this topic. As a result, the topic is defined along five dimensions:

- 1) **Information, advice and guidance:** potential participants to FP face difficulties in getting the right information, at the right time, on existing opportunities in the FP that are relevant to them, as well as on the EU R&I policy context of the area of the call for proposals. An 'FP watch' (anticipatory function to work programmes or calls) function is a demanding exercise, in particular when the interests of potential participants span a broad range of programmes, and for SMEs that are not well equipped to undertake such strategic work. When potential participants are aware of opportunities, a further need arises to obtain technical information on many issues, including eligibility criteria, financial rules, evaluation criteria, etc. While those elements are all available in a codified form, unexperienced participants often require help in interpreting the rules, understanding them properly and linking them to their internal rules and practices. Also, participants need to be enabled to understand call topics as part of the wider R&I policy context of the FP activity. Composing consortia that include relevant partners is another tricky issue for those would-be applicants that are not yet well integrated into existing networks. All the difficulties mentioned above are further compounded for small organisations (in particular SMEs), and for those lacking internal resources to deal with them. These are present also in countries with high success rates in FP participation. Thus, potential participants need not only support to find information but also advice and guidance if they are to interpret and use the information to develop high quality proposals.

National authorities are aware of the above barriers and have implemented support activities to reduce the costs of acquiring and exploiting relevant information for FP participation. Providing information is the first level of support; the second level involves delivering advice; and the third level necessitates in-depth support in the form of (tailored) guidance. These solutions have to take into account the differences in target groups with respect to their mentality, objectives, the main distinction being between researchers in public research organisations (PROs/HEIs) on the one hand, and research actors in the private sector companies (in particular SMEs) on the other hand.

- 2) **Establishing national strategies to maximise participation in FP:** closely linked to the previous strand, another relevant issue is the national capability to influence the design of FP's work programmes and to know how these documents evolve during the definition process. This is a key element for early positioning and, if possible, for including some relevant topics at the national, regional or institutional level. Alignment strategies can also bring benefits from the perspective of developing human capital, thanks to synergies achieved between EU and national R&D programmes. While the very issue of alignment of national strategies with EU priorities goes beyond the scope of the present topic (and has been dealt with in another MLE), the development of effective institutional strategies for increasing the involvement of national research communities in the FP is an important pre-

condition for raising the attractiveness of FP to domestic actors. These strategies ensure that the impact of the specific measures aimed at breaking informational and skills barriers towards the FP is maximised.

- 3) **Skills development and training for research managers:** both existing and would-be FP participants face challenges in getting people with the necessary skills to design proposals and implement projects funded from the FP. Unexperienced actors' staff face shortages of both skills and experience. This barrier is higher when developing skills and capacities for entering into multinational research projects is not a priority in PROs/HEIs: in this case, researchers are left to themselves and have to learn all the rules and find time within their work to enter into European partnerships. This skills shortage problem is particularly acute in those SMEs for which research is not a strategic activity.

Remedies to this problem are offered by governmental strategies aiming to train managers regardless of the position they will occupy in public or private entities. They are also developed within research performing organisations themselves. In PROs/HEIs, this often takes place through the combination of advice units at groups' level and in departments such as legal units and technology transfer offices (TTOs). Some companies also have established dedicated functions or departments to ensure the internal availability of such skills. The focus here is on actions to support skills development and the training of research managers supported by national level authorities. Such actions take place on the domestic scene, but also on an international basis, involving training or exchanges between research managers on a transnational basis.

- 4) **Incentives:** to alleviate entry barriers into FP, national authorities have developed financial incentives to cover the costs involved in developing research project proposals involving transnational partnerships. This concerns both actors in the public and private research sectors. These incentives are developed firstly on the premise that actors, and in particular those that are not yet experienced in FP participation, and those who are in organisations where this is not part of the institutional strategy, face sunk costs to prepare their proposals; and secondly on the premise that the low average success rate of proposals in FP acts as a deterrent to engage into such endeavours. The costs include in-house time needed for working out the details of proposals, as well as travel costs to meet partners and develop the partnerships behind the proposals.

Another issue, of particular relevance for PROs/HEIs, relates to the difficulty of getting co-funding for those awarded FP projects, which do not fund costs on a 100% basis. This can act as a deterrent to considering participation in FP projects. As a response, national authorities have developed systems that provide financial rewards for researchers or organisations that are beneficiaries of FP funds (or even for those involved in projects that are not funded but are evaluated positively – the Seal of Excellence mechanism).

- 5) **External Communication:** the information barrier with respect to FP access works both ways: it is also difficult for national actors to become visible – and, more importantly trustworthy – on the European scene and be invited to join proposals. In less R&D-intensive countries, there are many centres of excellence that have the capacity to act as good partners in research consortia, but which suffer from a lack of visibility and a limited history of participation in such endeavours: this is an obstacle to their participation. For SMEs, this is a big barrier unless they are well integrated into global value chains and used to working with larger companies that are themselves FP participants.

While becoming known outside national borders is chiefly the responsibility and result of actors' own initiatives, possibilities for joint action are also being taken by national authorities, or by groups of PROs and HEIs if they agree on joint strategies, or by public-private partnerships. The aim of such actions is to ensure, on a

collective basis, the external promotion of domestic fields of excellence and their actors². This type of activity also falls under the present topic as they contribute to the surmounting of information barriers as seen from the outside.

2.2 Complementarity with other topics covered by this MLE

The challenge of enhancing participation to FP will not be met through the provision of solutions to information and skills deficits only: these are necessary, but by far not sufficient conditions. Other significant conditions will be addressed in other 'widening' topics covered in this MLE:

- **Topic 1: mobility of researchers:** brain circulation associated to FP participation is a good way to help national institutions to enter into, and maintain, their presence in EU partnerships. Mobile researchers can contribute to the information function by connecting their original home institutions with foreign institutions in a targeted mode, i.e. enhancing people-to-people links in domains of joint interest. In addition, mobility could be seen as a mechanism to develop skills and competences also with respect to applying and managing FP funded projects, which is very relevant to the present topic.
- **Topic 2: improving science – industry relationships and cooperation:** this is a precondition for preparing national agents for FP participation, which often require that research actors from the public and private sectors are also closely cooperating on a national scale. Such cooperation broadens the possibility of national actors entering into the European networks to which their national partners belong. In particular, it has proven difficult to involve SMEs in FP projects: promoting connections between SMEs and HEIs/PROs may be a good way to stimulate the engagement of the former in FP.
- **Topic 3: improving networking at EU level:** the phenomenon of 'closed' networks makes it difficult for newcomers to enter into partnerships for FP projects. The provision of information, incentives and guidance from support agencies alone will not solve this problem: national research actors need to tap into the opportunities offered by existing trans-European networks, such as e.g. ERA-Nets or COST networks, as stepping stones to FP participation.

The range of discussions under the theme of synergistic use of Structural Funds and FP funds (Topics 5, 6 and 7 of this MLE), at strategic and operational levels, is complementary to the present topic. For example, Structural Funds are used to support information and skills development initiatives such as the ones considered in the next sections of this report; and smart specialisation strategies adopted within the framework of Structural Funds provide a frame to focus internal and external communication around specific national strengths.

² Even if the emphasis in the MLE is on national actions, it should be noted that such promotional activities could also be carried out on a trans-national basis.

3 Landscape

3.1 Information, advice and guidance

In every MS and AC, the National Contact Points (NCP) network is at the core of the FP information, advice and guidance activity. However, there are several other networks which also perform such functions. NCPs and those other bodies often co-exist and their missions and activities need to be well articulated and to complement each other. Web portals and R&D liaison offices in Brussels, mentioned under section 3.5 below, also play a role in information provision.

National Contact Points (NCPs), established in all MS and AC, play a key role in promoting participation to FP through their roles as providers of information and assistance to potential applicants and project beneficiaries. They are funded by national authorities and implemented under various architectures and modes of operation in every country. The NCPs differ in terms of³:

- *Degree of centralisation/decentralisation*: this is an issue that is notably related to the institutional setting in the country and the role of the regions. At one extreme, France, Finland and Ireland have highly decentralised NCP systems, with many thematic NCP coordinators and a large number of organisations involved. At the other extreme, centralised NCP systems are found in the Czech Republic (where the Technology Centre of the Czech Academy of Science - Department National Information Centre for EU Research – NICER - takes the leading role and acts as a one-stop-shop); the Netherlands (where the EG Liaison office takes the central role); or Portugal (where the NCP functions are located in a single organisation, Fundação para a Ciência e a Tecnologia -FCT). In other countries, the NCP system is hybrid. The system in Belgium, with 5 NCP organisations, reflects the federal nature of the country in that each region and community has its own NCP. Austria has both a central NCP office (the Department for European and International Programmes [EIP] at the Austrian Research Promotion Agency) and 5 regional NCP 'contact points'. Denmark also combines a central function with its EuroCenter located at the Ministry of STI and 5 regional NCPs. Switzerland follows a different hybrid pattern with a central NCP structure, Euresearch, which coordinates a network of 15 members acting as regional NCPs and located at universities. The system in Turkey is centralised and affiliated to TÜBITAK, but because of the size of the country there are also 73 'information multipliers' all over Turkey, who mostly work at universities and technology transfer offices.
- *Size in terms of staff*: Switzerland's NCPs have 18 FTE centrally and 20 FTE in regions; France 34 FTE; the Netherlands 29 FTE; Turkey 23 FTE; Portugal 20 FTE; the Czech Republic 14 FTE; Denmark 14 FTE; Sweden 12 FTE; Finland 4 FTE centrally and 8 FTE in organisations; Slovenia 21 individuals and Hungary 19 individuals. In many cases, individuals work part-time on NCP missions, and hence the number of individuals acting as staff in NCPs is usually much larger than the FTE number. The size of NCP is related to the size of the national research system but it also reflects choices made regarding the role and importance of this structure.
- *Degree of professionalism⁴*: related to the part-time/full-time distinction is the issue of professionalism. Some NCP staff are highly specialised and very knowledgeable about FP issues, while others only conduct their FP-related activities as side activities, sometimes leading to a lack of resources to invest in acquiring a deep

³ Part of these data are extracted from NCP Academy: *NCP Systems – benchmarking on micro and macro level & gathering future needs*. http://www.ncpacademy.eu/wp-content/uploads/2017/08/20170531-NCP-Academy-Helsinki-Experience-Report_FINAL_sep17.pdf

⁴ See section 4 for a discussion of the relative merits or the different NCP models and lessons learned.

understanding of the possibilities and modes of operation of the various elements of the FP, and to develop the capacity to support (would be) participants.

- *Activities*: the Commission has defined a minimum set of activities for NCPs⁵: 1) Informing and raising awareness about FP; 2) Assisting and advising clients; and 3) Signposting and cooperating with other networks such as EEN whenever necessary. The range of services delivered in practice under these three themes varies quite a lot. In particular, some NCPs are more reactive while others adopt more pro-active missions, such as acting as consortium facilitators and undertaking pro-active partner searches. The task of targeting audiences is also implemented with different levels of intensity. Some NCPs focus on the widespread transmission of information to broad audiences while others focus on the provision of customised services to smaller, targeted audiences. The extent and depth of assistance during the proposal drafting stage is another differentiating factor: some NCPs limit their intervention to a quick check of project ideas while others provide in-depth mentoring and coaching to potential EU project partners or even training to (potential) EU project managers.
- *Target groups*: the NCP's information, advice and guidance services are tailored to two broad target groups: PROs/HEIs on the one hand, and companies, mostly SMEs, on the other hand. The balance between these two groups varies, and depends on the existence of other services dedicated to these groups in the national setting.

In addition to the NCPs, the landscape of advisory and information services includes **initiatives managed by PROs/HEIs themselves and by SME support bodies or industry organisations**. While they can be seen as grassroots initiatives, they also fall under the scope of this MLE due to the fact that they often benefit from public funding in the form of programmes or grants (sometimes funded by ESIF) to implement these missions:

- The European Projects Office at the Technical University of Madrid in **Spain** ([see case description on PSF website](#)) was created as a consequence of the national Euroingenio programme (see section 3.2 below). It has a team of 14 persons managing 100 projects and 250 proposals per year. The funding was granted to hire new staff and to partly cover operating costs (travel, training, consultancy etc.). The volume of funding depends on the performance of the Office. This Office was instrumental in the preparation of an internal Strategic Plan for participation in EU programmes: the plan is funded by the national Ministry in a performance-based mode. Since the creation of the Office, the university has doubled its financial income from the FP.

University technology transfer offices or R&D liaison units play a (sometimes crucial) role in informing and raising awareness of university researchers with respect to international cooperation possibilities. In some countries, such as **Sweden**, FP support for university researchers is mainly available on a university basis rather than through NCPs. In **Flanders**, each university and PRO has such an office, and they have all different ways of working. These university offices offer their services mostly on a free basis, although there are exceptions. Some do a great deal to alleviate the burden on researchers involved in FP projects, taking on administrative and financial management tasks. Through their participation in international networks such as the LERU, staff at these units gets access to knowledge and potential partners to support their job. Some of these offices have developed a wide range of support activities:

⁵ European Commission (2006) Guiding principles for setting up systems of national contact points. for the Seventh Framework Programmes for Research and Technological Development (FP7).

- ERIO⁶ – the European Research & Innovation Office of the University College of London has a staff of 17 people and its services include: FP funding information and advice (including workshops); proposal support services; project management and finance; project costings; contract negotiations. ERIO receives 1% of the FP funds received by the university.
- The Danish Central Support Offices (CSOs) in universities offer support along the whole project proposal cycle. This includes: advice on ideas for research proposals (screening); review of draft proposals; dedicated assistance with drafting the management, administrative and financial elements of the proposals; and compliance checking. In addition, CSOs offer guidance material as well as training sessions.

Business Innovation Centres (BICs) are at the frontline to diffuse information and provide guidance to SMEs, their main target group. Stimuli to participate in FP can be given through their usual innovation support activities or through dedicated activities:

- An example is that of BIC Asturias⁷, which promoted the creation of a commercial pilot 'R+TD Unit', and developed a structured and effective methodology to position Asturian companies as partners in R&D projects financed by the FP.

Finally, information and advice for participation in FP is also provided by **European networks** operating at EU level:

- One example is provided by the European Regions Research and Innovation Network (ERRIN). In 2017, ERRIN is organising an entire week of Horizon 2020 project development workshops at multiple venues in Brussels, involving over 200 participants and more than 50 FP project ideas.

3.2 Establishing national strategies to maximise participation in FP

All MS, as well as most AC, have developed strategies to increase the involvement of national research communities in the FP. These incorporate: the adoption of overall national goals with respect to FP participation; the allocation of complementary tasks to various Ministries and institutions; the definition of targeted policy mixes; and the organisation of exchanges of information and the creation of synergies between key national actors concerned with FP participation.

- In **Spain**, there has been a continuous effort by successive Spanish governments to obtain a positive return from the Spanish contribution to the EU FP budget ([see description of this case on the PSF website](#)). This high-level political will is translated into a set of Key Performance Indicators (KPI) embedded in the national R&D and innovation plans and also at an institutional level. In 2007, the Spanish government launched Euroingenio, a plan designed to increase Spanish involvement in FP and international research. The challenge was to get an economic return from FP7 equivalent to Spain's economic weight in the EU25 (in 2007 the Spanish GDP represented 8.4% of the EU25). The economic target was to increase Spain's participation from the 6.5% achieved in FP6 to 7% in 2008 and 8% in 2010 within EU27 (considering only funds allocated to Member States). Another target was to increase the Project Coordination Rate (number of projects coordinated by Spanish entities) to 6% in 2008 and 7% in 2010. These targets were eventually reached. The plan included elements that aimed to:

⁶ <http://www.ucl.ac.uk/research-services/euro-funding>

⁷ <http://www.ceei.es/pgceei.asp?pg=95>

- Include all stakeholders: business, universities, research groups, innovation agencies, etc.;
- Support the creation of offices for international projects;
- Establish structural measures to provide a way for Spanish R&D actors to participate in a different fashion with an international long-term approach (e.g. by professionalising the management of international projects);
- Introduce for the first time the concept of 'funding for results': financial aid was made conditional to, on the one hand, the excellence of an Action Plan for participation in FP7, and on the other hand, the compliance with some indicators established in that Action Plan.
- Turkey has ambitious STI targets that it hopes to attain by 2023 and participation in the FP is an important element of national plans ([see description of this case on the PSF website](#)). Turkey, as an AC that is not part of the ERA, faces challenges additional to those faced by MS. The H2020 National Coordination Office (NCO) under the Scientific and Technological Research Council of Turkey (Tübitak) is in charge of a wide range of actions aiming at increasing and widening Turkey's participation to H2020; these are deployed in the frame of a 'H2020 Roadmap' built on 5 objectives:
 - Objective 1: increasing awareness at national level through enhanced training activities. Numerous training sessions, information days, project writing camps and brokerage events are organised and aimed at a wide target group; individual face-to-face support is also provided. An information multiplier system with 73 multipliers around the country is established to ensure broad coverage;
 - Objective 2: development of initiatives that aim to encourage participation in FP. These include a range of financial incentives and awards;
 - Objective 3: identifying capabilities in the Turkish Research Area, increasing international visibility and developing cooperation with ERA. This takes place through a mapping exercise and workshops and thematic meetings with a large variety of stakeholders;
 - Objective 4: increasing cooperation among national institutions. Notably, very strong cooperation is established between NCPs on the one hand and TTOs, technology parks and EENs on the other hand;
 - Objective 5: developing synergy between national and international R&D programmes.
- **Norway** has developed an overarching strategy to maximise its participation in FP. The strategy for FP7 included the following responsibilities:
 - The Norwegian Ministry for Education and Research and the Research Council Norway (RCN, responsible for NCPs) are responsible for facilitating the development of objectives and strategies for FP7 participation among HEIs;
 - The RCN and Innovation Norway (IN) are responsible for strengthening the coordination of their information and counselling services;
 - The RCN and IN are responsible for implementing activities to enhance FP7 participants' capabilities in terms of project management, proposal writing, etc.;
 - The Norwegian Ministry for Education and Research is responsible for adapting and strengthening programmes to co-fund FP7 proposal writing and project implementation.
- **Denmark** has established a range of complementary measures to enhance Danish participation to FP:
 - Strengthening of the EuroCenter (NCP) within the Ministry of Science, Technology and Innovation;

- Direct financial incentives to universities based on FP participation;
- Financial incentives for SMEs and researchers in the public sector;
- Reinforcement of support offices at universities;
- Improving recognition and reward for FP participation within the university system.
- The **Austrian** Research and Promotion Agency offers comprehensive information and assistance services on FP and is responsible for the dissemination of information as well as assistance for researchers from academia and industry about FP in Austria. One of the important activities of the Agency is the organisation of strategic talks to explore the potential of universities, research organisations and private firms to participate in FP and discuss strategies that might increase overall national participation in FP.
- **Flanders** has the general goal of increasing Flemish participation in FP but does not have a specific overarching strategy to do so. The Flemish EU concertation platform acts as a dissemination and discussion platform for government and stakeholder representatives (from the quadruple helix), in particular EU 'liaison officers' at PROs, regional official advisory bodies representatives, and others such as industry federations. The main efforts are geared towards creating synergies: besides the creation of a 'one-door' NCP, a positive feature is that several structures are gathered under the same roof (the Flemish Innovation and Enterprise Agency): the ERDF MA authorities and contact points; the H2020 technological NCPs; the RIS3; provincial front offices; and EEN collaborators. Their combined expertise, in particular on SMEs, proves a valuable stimulus to participation in FP. ([see description of the case on the PSF website](#)).

An important element in terms of national strategic positioning in FP concerns **the role of universities**. First, national universities can play an instrumental role in providing inputs for national authorities in work programme negotiations with the EC. They can act individually, but also under common umbrellas such as Conferences of Rectors or similar bodies. Second, the extent to which national universities are engaged in transnational research partnerships, possibly formalised in Conventions or Memoranda of Understanding at the level of university boards, faculties, or broad research groups, can help to better position national research communities in FP. The development of structural research partnership agreements can take various forms: establishment of joint transnational institutes that can be physical or virtual institutes; establishment of overseas offices of universities; joint research projects and of course mobility schemes (covered under another topic of this MLE). When such initiatives are in place, they form a good base on which informational support services can build.

- The **Baltic Sea Region University Network** (BSRUN)⁸: 27 universities in the region are committed to develop a mutually beneficial and equal partnership by strengthening collaboration in university governance, management and administration. The aim of the network is to ensure the implementation of the full potential of the region in science, research and education, as well as further strengthen its position as a renowned European hub of innovation.
- The partnership between 5 northernmost **Swedish, Finnish and Norwegian** universities under the leadership of Luleå University of Technology (RECOLL)⁹, provides a good platform to better position the Northern part of Scandinavia in the FP.

⁸ <http://bsrun.org>

⁹ <https://www.keep.eu/keep/project-ext/11072/RE-COLL?ss=9362daff096189b7a27a709925b61a3&espon=>

3.3 Skills development and training for research managers

A **training programme for NCP managers** exists: the **NCP Academy**¹⁰. It aims at enhancing the performance of NCPs by bringing together NCP Coordinators and Legal and Financial advisors and implementing training on cross-cutting issues for NCPs while addressing quality standards and good practice. Conclusions drawn from the action of the NCP Academy point towards the reduction of ineligible proposals and an increase in quality of proposals.

Some **NCPs** also include formal training activities in the scope of their services:

- The Agenzia per la Promozione della Ricerca Europea (APRE)¹¹ in **Italy** provides training for a) researchers and other potential beneficiaries of European funds (including webinars on how best to approach European calls and write project proposals); b) other NCPs. APRE has developed a number of NCP handbooks, distributed at the European level and beyond.
- The NCP network in **Ireland** is coordinated by Enterprise Ireland, which organises mutual learning events, training and exchanges of good practices between all the organisations that are part of the network in order to ensure professionalisation and the continuous learning of research administrators.

National experiments pursue the aim of formalising the training process through specific 'specialisation degrees' (even expanding them to master degrees):

- The **Spanish** training course 'Specialist on international R&D programmes' (part of EUROINGENIO) pursues the objective of building capacity for research managers and advisors in RTOs, universities, businesses, public administration, associations, etc. Beyond FP, *stricto sensu*, the goal is also to identify opportunities in EUREKA, ESA, INTERREG, etc., where participants can also have other opportunities depending on the type of activity or proposal.

Learning networks for research administrators are active in providing support and guidance, based on good practices, at national or international levels:

- The **COST BESTPRAC Targeted Network**¹² is a network of officers in administrative, finance and legal services in universities, research organisations and related entities supporting researchers involved in developing international (in particular European-funded) research projects, with the aim of exchanging experiences and sharing and developing best practices, encouraging knowledge sharing, and promoting knowledge transfer and increased efficiency. It organises meetings, training schools, summer schools, workshops and workplace exchange to train those officers in a variety of matters related to the management of internationally-funded research projects. Good practice guides have been produced based on the mutual learning activities.
- **EARMA, the European Association of Research Managers and Administrators**¹³ dedicates its activities to the lifelong learning and professionalisation of those administrators in charge of research management. It organises conferences, workshops, exchanges of experience sessions, training courses, and mentoring activities. It also offers small grants (e.g. travel grants, mobility grants for short term study visits, and grants for activities such as

¹⁰ <http://www.ncpacademy.eu/>

¹¹ <http://www.apre.it/>

¹² <http://www.bestprac.eu/en/home/>

¹³ <http://www.earma.org/>

conferences). Similar associations also exist at a national level. One example is the Danish Association for Research Managers and Administrators (DARMA).

- **The Informal Group of RTD Liaison Offices (IGLO)**,¹⁴, is an informal association of Brussels-based non-profit R&D Liaison Offices. The aim of IGLO is to facilitate and enhance the interaction, information exchange and co-operation between Members of IGLO, their national research systems and European institutions on issues related to EU RTD, in particular, the Framework Programme. It notably provides training sessions to research managers in R&D liaison offices on practical issues related to the Framework Programme, such as proposal preparation, financial management, contractual issues, IPR, etc.

3.4 Incentives

National incentives for fostering participation in FP are popular and usually take the form of **small scale subsidies for FP project preparation** (grants for exploring project feasibility and validation of project ideas, grants to seek advice from specialised consultants) and/or travel costs for transnational exchanges. Depending on the schemes, they target either HEIs/PROs or companies, or are open to both types of research actor.

Examples are:

- **Turkey:** TÜBİTAK Support and Award Programmes provide financial incentives for travel, pre-evaluation or writing of proposals, attending trainings and organising meetings. Four types of support are available to cover costs for: travel (max €1.5k), coordinator (max €33k), ERC Principle Investigator (several grants), MSCA Pre-evaluation. Three types of financial awards target: applicants that are not funded but have evaluations that exceed the threshold; successful applicants; and COST Actions ([see full description on PSF website](#)).
- **France:** €30k grants are available to coordinators to prepare a consortium and a proposal; Trampoline ERC grants can be used to improve a failed application.
- **Denmark:** one programme provides grants for proposal preparation – €10k for project coordinators and €7k for project partners. The budget of this programme is €3M per year. The success rate of proposals supported by these grants is 30% compared to 15% for those without support.
- **Hungary:** a dedicated scheme supports the preparation of H2020 projects (funds are available for travel, participation in brokerage events, organising consortium meetings, and using legal advice).
- **Poland:** 'Grants for grants for SMEs' are offered to SMEs to support the cost of preparation and submission of applications to an international innovation programme (including FP). A maximum of €18.75k is available to potential coordinators and €8.75k for potential partners. The programme is funded by the Ministry of Science and Higher Education and co-funded from Structural Funds.
- **Norway:** Support for FP proposal preparation is provided by Research Council Norway (RCN) within its PES scheme. A dedicated yearly budget (average €4.89m)¹⁵ covers up to 50% of eligible costs. Grants vary in relation to role, type of project, presence of Norwegian actors etc. For a large-scale project, the amount available can rise to €42.8k.

¹⁴<http://www.iglortd.org/>

¹⁵ <https://www.forskningsradet.no/en/Funding/PES2020/1253991614799>

- **Ireland:** Enterprise Ireland provides grants for FP project preparation to academics acting as project leaders (€12.5k) and to domestic companies, as well as providing travel grants to applicants. The Inward Investment Agency supports the costs of project preparation for multinational companies.
- **Spain:** CDTI provides grants to cover proposal preparation expenses (up to €40 k per proposal).
- Region of Murcia in **Spain**, through its Plan 'Europe-SME', offers an annual award to the best project idea not yet submitted by a company. This provides free assistance from a private consultant to help the company to write the proposal for an EU call.

There are also **indirect financial incentives** targeting intermediaries or support agencies, and sub-national entities:

- In **Spain** (see case description on PSF website), CDTI manages the Programa de Bonos Tecnológicos (PBT). This is an incentive programme targeting networks of agents (consultancy firms, universities, RTOs, etc.) experienced in FP projects, with the aim of supporting their effort to find newcomers or new project coordinators in FP (aimed at businesses, especially SMEs). The incentive consists of performance bonuses calculated on the grant obtained by the newcomer. As the case of the Technical University of Madrid shows, this incentive effectively enhances the collaboration of university researchers with national industry, helping to validate (and exploit) their research results. This money was also very useful to keep the contracts and structure of European Project Offices after the end of the EUROINGENIO programme. In addition, the central government, via the Euroingenio Competitive Fund, allocated money to Spanish Regions to create and run complementary instruments aimed at stimulating the participation of regional stakeholders in FP7 and in other international R&D programmes.

Many countries offer financial **incentives within national R&D funding programmes**¹⁶ that support FP participation. They take five principal forms: Type 1) the allocation of budget funds to universities include a criteria linked to FP funds attraction; Type 2) the evaluation criteria for project proposals place a bonus on an international cooperation dimension; Type 3) a monetary incentive is awarded for projects meeting international cooperation criteria; Type 4) funding lines are open for projects that have been rated highly but not funded by FP (Seal of excellence)¹⁷; and Type 5) specific programmes offer top-up schemes to reward the acquisition of FP money. Examples are:

- Type 1): in **Flanders**, the two main channels for university funding (BOF and IOF programmes) use a performance-based system to allocate institutional funding, with the number of FP projects being one parameter in the yearly calculations.
- Type 5): the **Hungarian** BONUS-HU Grant provides supplementary funding for HEIs/PROs, non-profit organisations and SMEs that have successfully competed for collaborative research projects in the FP.
- Type 5): the **Danish** REWARD programme (DKK 65m/year, approx. €8.7m) provides top-up funding to universities that is distributed according to their success in acquiring FP funds.

At the **level of universities**, incentives are also provided to university researchers. These take the form of: inclusion of FP participation-related criteria – often distinguishing

¹⁶ Financial incentives also do exist at the level of universities or PROs, e.g. mechanisms for internal funds allocation which favour researchers or research groups which have acquired FP projects.

¹⁷ Seal of excellence schemes are covered in Topic 7 of this MLE.

between participation and leadership – in internal reward schemes (via enhanced remuneration or improved career paths e.g. relevance of coordinating projects or work packages to get a tenured position); and small-scale funding for FP proposal preparation, typically in the form of support to cover travel costs.

3.5 External Communication

Information Portals on the Web are used both to diffuse information on FP – first section above - (tailored to the country's needs) and also to publicise national research capacities to the outside world. The understanding of the added value of these portals (and probably the co-existence of some of them) would require an in-depth analysis.

- The ERA Portal **Austria**¹⁸ is a knowledge-sharing platform providing information on EU-related research policy and its implementation in Austria and in Europe. It supports decision-making by providing strategic intelligence. In addition, ERA Portal Austria serves as a promotion platform for EU initiatives from Austria.
- In the **Turkish** NCP website hosted by Tübitak, each thematic and horizontal area has its own page, which includes important related news, provides information on Turkish-funded projects and, additionally, leads to sub-pages that cover partner searches, call information and various other topics. There is also a dedicated page with information on national support and award programmes.

Well-organised knowledge bases are useful support tools for research managers and intermediaries in charge of informing and advising research actors, and thus contribute to the above training and skills function.

Some countries use **liaison offices in Brussels** to play different roles, supporting the various dimensions of this topic. Generally speaking, they can play an effective role in supporting FP participation when they actively engage in discussions with representatives from other countries to create links with potential project partners and also highlight key assets in the country (or region) on the European scene. Some of these offices also support national participants with information and advice, or through the provision of meeting facilities for project coordinators and participants. Some deploy also training actions for research managers (see above).

- The Region of Murcia in **Spain**¹⁹ funds project leaders from regional companies, research institutions or intermediaries to spend one month in the Brussels liaison office to receive customised training and assistance to prepare project proposals.
- **Spain** offers short-term stays in Brussels (six weeks at COST-CDTI Office), targeting experienced personnel of organisations with a special interest in H2020.

Finally, specialised national R&D-active organisations such as **competitiveness poles**²⁰, which gather actors from public and private research spheres around a dedicated theme, have the potential to play an active role in external promotion of the research assets of a country. Supporting their members in the development of projects and the acquisition of FP funds is often part of their mission.

¹⁸ <https://era.gv.at/>

¹⁹ http://www.greenavoid.eu/media/uploads/nova_magazine_march_2014.pdf

²⁰ The role of innovation-oriented public-private partnerships in supporting FP participation will be dealt with under Topic 2 of this MLE, "Encourage science-business cooperation".

4 Lessons

4.1 Lessons related to information, advice and guidance services

Lessons for information services²¹

Concerning FP-related issues, the debates in the MLE workshop demonstrated that **getting the right information at the right time** is highly valued in all countries. Research performers expect FP information to be easily accessible but also, as far as possible, tailored to their needs. Access to early, even non-official or 'grey' information, is seen as a value-added aspect of information services.

A general challenge for information services lies in the **visibility and take-up of these services, especially by companies**. The issue translates into practical questions about ways to stimulate appetites and publicise offers in a more pro-active fashion.

- The 2010 evaluation²² of **Danish** participation in FP found that the Central Support Offices at universities were very effective: the information and guidance needs of university researchers were well met by the CSOs. However, the evaluation also pointed towards a rather low level of take up of the CSO services on offer: this suggested that CSOs found it difficult to broaden their reach. The same evaluation found that Danish SMEs were less-well served by the national FP support system than university researchers, as the former target group had proved more difficult to reach.
- The EU **MIRRIS** project²³ (Mobilising Institutional Reforms in Research and Innovation Systems) set out to encourage better exploitation of European research and innovation programmes and greater participation in the European Research Area by EU-13 countries. It did this by setting up a process of analysis, dialogue and mutual learning among key concerned stakeholders, namely research, innovation and institutional actors. The project identified "*a reactive rather than pro-active attitude*" as one of the four main barriers to EU-13 participation in FP.

Participants at the MLE workshop were of the opinion that information and support services need **to become broader and delivered in a more pro-active mode**. Experience suggests several directions that could be explored in this respect:

- A **broadening of the scope** for information, advice and guidance, moving from a focus on open FP calls to participation in the internal calls of JTIs or FET Flagships, to mention just two examples.
- An **extension of the role of university TTOs** to better incorporate the 'promotion' stage. Usually, TTOs support researchers when they have been funded (i.e. during the implementation) or during the negotiation phase. Many of them fail to support researchers pro-actively during the promotion and preparation of proposals because these activities frequently require a different type of staff profile. The example of the Technical University of Madrid is testimony to this approach ([see description of the case on the PSF website](#)). The lessons learned highlight the value of having dedicated staff for each group of activities (Pre- and Post-award) with different profiles: Promotion/Commercial activities vs. Management/Administrative activities.

²¹ One topic not addressed here, but which would deserve attention, is the extension of these services in combination with non-European partners, for specific calls in FP.

²² Danish Agency for Science, Technology and Innovation (2010), *Evaluation of Danish Participation in the 6th and 7th Framework Programmes*, DASTI Research: Analysis and Evaluation 2/2010, Copenhagen.

²³ www.mirris.eu (see final conference report)

- The organisation of **matching events** between countries, such as the ones organised by **Turkey** within the frame of Science and Innovation Years (e.g. in 2014, 74 events involving 18000 researchers were organised in Germany).
- The **extension of promotional activities** through broad-based communication campaigns, such as the Action Plan on Communication, broadcast on Turkish television and Radio and in the national press (see description of the Turkish case on the PSF website).

Lessons for NCPs

The diversity in models adopted, as well as the variation in maturity and experience of NCPs across Europe, provides a good pool of experience for mutual learning exchanges. Participants in the MLE workshop emphasised that the crucial issue is to **increase effectiveness and professionalism of NCPs**. Regarding effectiveness, MLE participants acknowledged that there is a lack of knowledge on the impacts of NCPs²⁴, most data available being input or output data (even if, e.g. in Hungary, efforts are being made to use client satisfaction surveys). Regarding professionalism, a challenge was identified when NCP advisors are doing their work part-time and may not have enough resources and time to build capacity to perform this demanding function.

An important issue for NCPs is the **question of targeting clients**: there is a dilemma between focusing on the most advanced participants (with a view to raising the number of successful proposals) or on those that are less advanced and need more support (with the aim of producing learning effects, thus maximising behavioural additionality). This is balancing between short and long term impacts: the former ensures short term impact, whereas the latter aims at longer term impact.

- The **Irish and Swiss NCP** strategies, have taken opposite views on this question, the former targeting more advanced applicants and the latter less advanced ones.
- **Ireland** has developed a successful approach to target enterprises, with a view to raising their FP participation (see description of this case on PSF website) Enterprise Ireland (EI) has responsibility for co-ordinating the promotion of FPs. Through its staff of over 200 Development Advisers, it works directly with companies in Ireland to support their development and growth and to win export sales in global markets. Only a very small minority of EI staff are directly involved in promoting FPs, but the organisation seeks to ensure that there is a high level of awareness amongst all its Development Advisers of the role and opportunities provided by FPs. The Development Advisers, using a Technology Audit process to help companies to set an agenda for overall company development, are aware of the potential role that FP could play in developing the research capacity and international orientation and networking of their client companies. The Advisers make use of the National Technology Audit Programme, which offers financial support to the companies to find their way into an FP project consortium. Using the Technology Audit as a basis for identifying whether a company has an appropriate 'fit' for an FP project provides a very solid base for proceeding into a resource intensive and highly competitive call process. EI work in this area tries to target new clients, and the approach has proved to be successful: 80% of companies participating in the EU SME instrument are new players.

²⁴ Including indicators such as: success rate of proposals which received one or more type of support, compared to non-supported and/or those that received less support (adjusted by prior experience of the applicant); number of new FP applicant participants identified (and assisted) by support services; number of web-visits by those previously not engaged in FP applications or projects; etc.

Reaching SMEs was singled out by MLE participants as a particularly difficult objective to attain (e.g. this was identified as a major hurdle for NCPs in Poland), but one to which NCPs should pay more attention. There are many possible explanations to this hurdle and they differ for each country: NCPs might have a public sector or HEI/PRO background; NCPs might have administrators with little understanding of SMEs needs or inappropriate educational background; there might be a lack of collaboration between NCPs and agencies supporting SMEs, etc.

- The **Irish** experience of targeting SMEs and new players suggests that improving industry participation in FP is probably easier to achieve when an innovation or enterprise development-style agency is in charge. Such an agency should have a wide range of competence, a recognisable client base and a range of support measures at its disposal that are linked to company life-cycles. It should also have political responsibility for stimulating and supporting engagement with EU programmes.

One NCP network that has been mentioned as an example of good practice is the **Austrian NCP network**²⁵. An evaluation of 4 regional NCPs in Austria was conducted in 2013²⁶. These display considerable heterogeneity (e.g. in terms of types of customers targeted – companies versus researchers in PROs and universities; and in terms of depth of service). In addition to traditional NCP functions, they also have strategic tasks, such as providing strategy advice and strategic input to local governments. Overall, the NCPs were rated as effective in terms of meeting the goals assigned to them, primarily because they took a holistic approach to service delivery. Key findings from this evaluation are:

- Key success factors:
 - The client-centred approach rather than one of 'selling' (FP) programmes;
 - The presence of committed and well-trained advisors/staff;
 - The regional character of the service delivery.
- Problems:
 - The treatment of the European dimension needed to be deepened and the target group further defined in order to reach those actors that have the right profile to participate in the EU programmes.

Another important issue arises with respect to the **relationship between NCPs and university transfer offices**. The value-added of NCPs depends on the main features or specialisation profiles of PROs and HEIs. The background of NCPs and their relationship with the public system is another factor to be taken into account. When universities have implemented their own information and advisory structures internally, the relevance of external structures decreases and the issue of good synergies between the various structures become prominent:

- In the case of the **Swiss NCP**²⁷, a problem of potential conflict of interest was identified, since universities were members of the NCP network: it was difficult for these to serve their own university researchers as well as external actors, in

²⁵ See e.g. this reference: « *An example of a highly successful model from which others might learn is the Austrian NCP network* », p.8 in Commission analysis of September 2011, at the request of the Polish Presidency: "Analysis of low participation in FP7".

²⁶ Good, B. and A. Radauer (2013), *Zwischenevaluierung der vom BMWF beauftragten Regionalen Kontaktstellen (RKS)*, Technopolis.

²⁷ Arnold, E., P. Boekholt, B. Good, A. Radauer, J. Stroyan, B. Tiefenthaler, N. Vermeulen (2010) *Evaluation of Austrian Support Structures for FP 7 & Eureka and Impact Analysis of EU Research Initiatives on the Austrian Research & Innovation System*, Technopolis.

particular SMEs. This issue of conflict of interest is a relevant issue that should be better taken into account in the process of establishing NCPs;

- In the **Netherlands**, closer interaction between NCPs and university support offices is taking place alongside efforts to introduce a clearer division of labour, with the latter taking on more administrative tasks, while national NCPs take on 'strategic intelligence' tasks, providing information (e.g. maps of FP participation performance by university department) to senior management in universities and research centres that could feed into strategy development.

Another issue is to secure NCP's **effectiveness in opening access to international networks** for national researcher performers. Indeed the latter may use a variety of EU-level networks, either as stepping stones to 'big projects' in the FP, or as complementary activities (see also Topic 3 of this MLE). Hence it is important that NCPs develop a capacity to help research performers navigate within the whole range of networks within their scope of activities:

- A new NCP system has been established in **Flanders** ([see description of case on PSF website](#)) following requests by national research performers to improve NCP coordination while ensuring 'open access' to the FP. One improvement concerned the unification of different parts into a unified NCP front-end office: the goal is for NCP Flanders to be the main 'beacon' regarding Horizon 2020 for companies and research institutions in Flanders. Another avenue for improvement concerned NCP participation in NCP networks or NCP-related ERA-nets. A lot of interesting information circulates at an early stage inside these networks; hence the openness of the FP might be improved by the speedy circulation of information from these networks to local levels. For the moment, the Flemish NCP wants to focus initially on the 're-engineering' of the services offered to potential applicants, but entering as a late-comer to these networks might eventually become a problem (as they are currently set up as project consortia that have to write and submit a proposal – which implies that the Flemish NCP office has to be invited to join such a consortium). This situation echoes the 'closed clubs' complaint by the 'widening countries'. Hence a clear short-term goal has been assigned to NCP Flanders, namely to actively participate in international networks (in particular NCP networks (CSAs), IGLO) and events or workshops (in particular of COM).

In 2017, the **NCP Academy** carried out an extensive survey and thorough statistical analysis of NCP systems, services, activities and indicators²⁸. The survey identified **challenges for NCP structures**. These include:

- The need to search for more synergies and reduce duplications between NCP networks within different Member States (see 2016 Recommendations²⁹);
- The need to adapt the NCP structure to the country context. A main issue discussed in the NCP Academy is the comparative virtue of centralised NCP systems (which favour visibility, accessibility, pooling of resources, smooth communication and information channels, better opportunities for standardisation of practices, better possibilities for exchange of good practices, experiences and knowledge) versus decentralised systems (which favour closeness to beneficiaries, wider reach and territorial coverage, richness of the network with different actors and various NCP

²⁸ NCP Systems – benchmarking on micro and macro level & gathering future needs http://www.ncpacademy.eu/wp-content/uploads/2017/08/20170531-NCP-Academy-Helsinki-Experience-Report_FINAL_sep17.pdf

²⁹ NCP Academy Experience report, 6 June 2016, Copenhagen. http://www.ncpacademy.eu/wp-content/uploads/2016/09/07062016_ME_Impact_ExperienceReport.pdf

practices – innovative approaches). Discussions showed that the strength of each model are the weaknesses of the other and vice-versa.

No consensus was reached during the MLE workshop on the debate concerning **centralised or decentralised models for NCPs**, but success conditions were identified for each model:

- **Turkey** has a centralised NCP model ([see description on PSF website](#)). This is associated with effective ways of disseminating information and connecting with researchers and innovators across the country. Compared to the decentralised model, the centralised model is seen as a better way of acquiring, processing and disseminating accurate information. It also enables the exchange of information among different H2020 themes and NCPs; allows the information acquired from different data sources to be tested; and is more conducive to the accumulation of knowledge and experience. It also reduces management clashes and allows a faster response to the needs of H2020 applicants. Overall, Turkey's experience is that the centralised system brings vitality to NCP interactions and synergy. The centralised system helps to stimulate external actors and focus their efforts on streamlined objectives.
- **Flanders** has opted for a system that is halfway between a centralised and decentralised system. Such a model is costlier to run than a purely centralised system because of the time and resources that have to be devoted to expectation management and agreement on tasks, but it is also seen as more robust. The key to the effectiveness of the services lies in the establishment of good cooperation between actors in the broader system.
- In **Sweden**, the NCP structure is centralised within the central agency Vinnova. There are no regional NCPs, but good contacts with the regions are maintained via close relationships between NCPs and universities and other stakeholders. In terms of giving advice to stakeholders, the centralised model is seen as a way of increasing the quality, continuity and coordination of competences. It also facilitates the provision of guidance on broad societal challenges and cross-cutting themes in Horizon 2020, since this necessitates a broad combination of expertise.

4.2 Lessons related to the establishment of national strategies to maximise participation in FP

During the MLE workshop, two examples of **all-encompassing national strategies** to better position countries (**Spain** and **Turkey**) within the FP were discussed (see section 3.2 above). The overall conclusion was that such strategies are important in order to create leverage effects from all interventions. These span all types of issues covered under this topic: provision of information, advice and guidance; development of skills; development of NCP and other infrastructure; and provision of incentives. Putting all those elements into a single strategy ensures a good division of labour and the complementarity of interventions. In addition, it can focus efforts on solving bottlenecks in the overall research and innovation system, such as the difficulty universities sometimes face when implementing a third mission (this was noted as a particular barrier in Slovenia). In addition, the Spanish example is an interesting case of ESIF-FP synergies, since the national strategy is co-funded by ESIF. Also, the aim of raising H2020 participation was introduced in regional RIS3 in Spain.

An evaluation of the **Norwegian** strategy for FP participation³⁰ indicates that it has an important symbolic value, emphasising the importance of the Norwegian presence in the international research arena. Besides, according to several HEI and institute management

³⁰ Åström, T., T. Jansson, G. Melin, A. Håkansson, P. Boekholt and E. Arnold (2012), *On motives for participation in the Framework Programme*, report for the Norwegian Ministry for Education and Research, Technopolis Group.

representatives, national strategies influence the actions and prioritisation of research-performing institutions in the public sector. And the fact that internationalisation is integral to the strategies of research institutions has a positive influence on FP participation rates. On the other hand, such national strategies do not have a commensurate influence on the activities of the private sector.

A 2010 evaluation³¹ of **Denmark's** strategy to enhance FP participation found that a lack of prioritisation of FP participation in the past by national authorities was one explanation for the relatively low participation of the country. This evaluation also noted that Denmark deploys a very comprehensive range of mechanisms to ensure the relevance of the FP for national actors: "*provision of inputs to national representatives on the FP programme committees; the establishment of Reference Groups in seven FP7 priority areas to strengthen national consultation on draft work programmes and to advise on ways to enhance Danish involvement; participation in EU-level conferences, workshops and other network activities; participation in European Technology Platforms, Joint Technology Initiatives, Article 169 actions and other forums that are helping to set future FP research trajectories and priorities; participation on FP Advisory Groups; and range of 'lobbying' activities aimed at influencing Commission officials responsible for FP planning*". However, despite all these actions, the evaluation found shortcomings and provided recommendations for improvement. Some of them concern the greater involvement of the research community itself in EU-level activities and networks.

A review³² of studies of national support structures for FP participation came to the following conclusion: the **interaction and exchange of information between national actors charged with providing information to the research community** (e.g. policymakers who represent countries in programme committees or other representative bodies and NCPs) **is seen as sub-optimal in many countries**. Several pointers to synergies and good practice were mentioned during the MLE exchanges:

- In **Ireland**, programme delegates (Ireland's representatives on FP committees) also provide (more strategic) support to prospective participants; for some programmes, the NCP person also takes the role of programme delegate;
- In **Hungary**, NCPs are in most cases the Programme Committee (PC) delegates;
- In **Flanders**, efforts are made to create synergies between NCP and PC delegates (typically these are different people). A 'cooperation protocol agreement' between NCPs, PC delegates and Flemish stakeholders to frame expectations and work towards synergies is drafted. One main aim is to bring stakeholders closer to the Advisory committees. A common concertation platform (with stakeholders) is established to facilitate this.
- **Turkey** is also trying to improve ways of enhancing interaction and information flow: the participation of NCPs in PC pre-meetings and meetings; research actors working with delegates/experts to define Turkey's priorities in each technology field; expert group consultations and workshops at national level to gather inputs to WPs and scoping papers; cooperation with other country delegates to provide contributions on WPs, etc.

³¹ Danish Agency for Science, Technology and Innovation (2010), *Evaluation of Danish Participation in the 6th and 7th Framework Programmes*, DASTI Research: Analysis and Evaluation 2/2010, Copenhagen.

³² Åström, T., T. Jansson, G. Melin, A. Håkansson, P. Boekholt and E. Arnold (2012), *On motives for participation in the Framework Programme, report for the Norwegian Ministry for Education and Research*, Technopolis Group.

4.3 *Lessons related to skills development and training for research managers*

Exchanges during the MLE workshop demonstrated that the skills issue is central to the effectiveness of FP information and support services. Participating in FP requires the skills of professional research managers, and a virtuous circle seems to be at play where only successful research teams can afford to get such services, leaving the less experienced research actors with a problematic gap. In the MLE exchanges, participants referred to the steep learning curve and agreed that the problem is even worse for SMEs.

- A relevant response to this gap can be found in **Spain**, where the Euroingenio programme finances the creation of offices for international projects. These are lasting structures (funded through a performance-based system) that help universities to professionalise their staff. Some of these structures have become self-sustainable through the growing capacity to acquire external funds ([see description of case of Technical University Madrid on PSF website](#)). Training modules dedicated to raising the professional skills of research managers are organised to further disseminate and promote such skills development in the Spanish system (see sections 3.2 and 3.3).
- In **Sweden**, the central agency Vinnova (which hosts the NCP), organises events, workshops and exchanges between research managers in order to reduce the gap.
- In **Turkey**, actions have been implemented to promote the possibility of researchers acting as evaluators in EU programmes. Workshops gathering these evaluators were organised in order to capitalise upon and diffuse the skills acquired. This is an effective way to get the research community better acquainted with the FP.

There is not much evidence available on the challenges faced and results gained by organisations or schemes delivering training to research managers. Such activity usually involves learning-by-doing and results in tacit knowledge. This tacit knowledge can, in theory, be transferred through various types of exchange of experience or lifelong learning activities, but there is a need to know more about the effectiveness of these types of initiative.

4.4 *Lessons related to incentives*

The MLE workshop discussions about financial incentive schemes aimed at enhancing FP participation (see the many examples listed under section 3.4) revealed a consensus concerning the idea that such **incentives are useful and even necessary** for those research actors that are still far away from the 'FP inner circles'. For example, Turkish potential applicants face this 'closed network' problem and both travel grants and financial support for writing proposals were seen as very relevant incentives for them.

Evaluation exercises have shed some light on the effectiveness of financial incentives for FP participation. These evaluations do not provide a straightforward (or a generalisable) picture concerning their relevance or effectiveness, for two reasons. First, their impact depends heavily on country conditions and, especially, on the level of maturity of the research community with respect to FP participation. Second, there is no linear relationship between these incentives and the quality and quantity of FP participation at national level. Nevertheless, some interesting insights are given by these evaluations.

- An evaluation of the **Norwegian** support measures for participation in FP7 was carried out in 2013³³. The portfolio of measures to support participation in FP appears to be comprehensive and, from an international perspective, it stands out

³³ Åström, T., A. Håkansson, G. Melin, P. Stern, P. Boekholt and E. Arnold (2013), *Impact evaluation of the Research Council of Norway's support measures to increase participation in EU-funded research*, Technopolis Group.

in terms of its breadth and generosity. As stated by the evaluators “it is probably Europe’s most comprehensive and generous”. The conclusions of the evaluation are overtly positive in terms of the relevance and effectiveness of these types of incentives:

- The project preparation subsidy scheme (PES) and a topping-up scheme for recipients of FP7 funds for cooperative research were said to have led to positive results in terms of additional proposals, more competitive proposals and output additionality. These schemes also had significant impacts in terms of competence development, expanded networks and behavioural additionality (ability to write competitive proposals and propensity to submit additional proposals). In particular, PES corresponds to a real need, since the measure resulted in both additional proposals and more competitive proposals, as well as to an increase in the number of Norwegian coordinators. The legitimacy aspect and the symbolic value of PES were also significant for research institutes. In contrast, the topping-up of Marie Curie and ERC grants led to less impressive though still significant results and impacts;
- The project preparation subsidy scheme (PES) is significantly more important for small and medium-sized enterprises than for HEIs and research institutes. PES support offers legitimacy to work on a proposal and can make it justifiable from a commercial perspective. For large companies, the significance of PES support is probably limited to its symbolic value.
- The evaluation³⁴ of **Danish** FP7 participation praised the combination of financial support measures available to support FP participation. However, it also indicated that the schemes were not sufficiently known by potential beneficiaries and that their reach was insufficient;
- In contrast, the 2010 evaluation³⁵ of **Austrian** financial grants for FP preparation was very negative and recommended their discontinuation on the ground that their additionality was too meagre (a lot of free-riding was evident).

The **lack of additionality** associated with subsidy schemes for FP participation is a well-known problem. One possible response to this problem is that of **Spain**, a country closer to the ‘FP inner circle’, which prioritises support to entities coordinating proposals (rather than acting only as participants). Such a measure should be aligned with the political and strategic goal of increasing the proportion of funded projects coordinated by members of the national research community, along with the increasing of the total volume of participation in funded projects. In **Ireland**, too, there are large grants for project coordinators, based on the view that the return to the country is likely to be greater when FP project coordinators are based in the country. In **Flanders**, such incentives have been stopped. They were considered to be of limited appeal and that support is integrated into existing general instruments.

Finally, MLE participants suggested that establishing **non-monetary incentives** (e.g. encouraging universities to link FP participation with improved career paths) is also an effective way to support FP participation.

³⁴ Danish Agency for Science, Technology and Innovation (2010), *Evaluation of Danish Participation in the 6th and 7th Framework Programmes*, DASTI Research: Analysis and Evaluation 2/2010, Copenhagen.

³⁵ Arnold, E., P. Boekholt, B. Good, A. Radauer, J. Stroyan, B. Tiefenthaler, N. Vermeulen (2010) *Evaluation of Austrian Support Structures for FP 7 & Eureka and Impact Analysis of EU Research Initiatives on the Austrian Research & Innovation System*, Technopolis.

4.5 Lessons related to External Communication

A lot of activities deployed, intentionally or not, by a wide variety of institutions (research funding agencies, governmental authorities, Brussels-based research liaison offices, individual R&D liaison offices of universities, NCPs, national delegates to FP Committees, and of course by national R&D actors) result in external promotion of the research strengths of a country. Participating in FP activities (and other international networking and joint activities) is probably the best way to ensure that these capacities are visible on the international scene. There is thus a cumulative process which nurtures this external visibility and the question here is how to kick-off or support such a virtuous process when it is initially weak. The more formal activities, such as dedicated portals or mapping exercises of national strengths, are only a very small visible part of potentially fruitful 'external promotion' activities. Showcasing national R&D assets abroad was mentioned during the MLE exercise as good practice:

- Turkey (see description on the PSF website) organises dedicated workshops in foreign countries (examples mentioned were Spain and the Netherlands for dedicated events, and Germany and UK for multiple initiatives during 'Science and Innovation Years') in order to match researchers from academia and industry from both countries in H2020 calls. These activities were considered to be successful as they generated multiple joint applications to H2020 calls and cooperation continued after the events.
- Ireland also regularly organises events in Brussels-based organisations to promote Irish research assets. These events are highly appreciated by research actors in the country.

5 Conclusions and way forward

The first conclusion to emerge from the MLE workshop can be attributed to one of the country representatives, who reminded the MLE participants at the very beginning of the exchanges that *"the most important driver for success in FP participation is to have an excellent project and an excellent consortium"*. The discussions demonstrated that governments can – and should - help their research actors, in the public and private sectors, to achieve that goal by alleviating informational and skills barriers impeding access to the FP. The most relevant ways of addressing these barriers include national strategies, efficient information services, hard and soft incentives and capacity building efforts to increase both the demand for FP participation and proposal success rates.

Conclusion 1: Integrated and coherent national strategies to increase FP participation are important governmental initiatives that can ensure leverage of all relevant measures

There are multiple benefits to be expected from integrated national strategies to enhance FP participation (good examples of effective strategies from the MLE participants from Spain and Turkey were discussed; lessons from Norway and Denmark were also described in the Challenge Paper presented at the workshop):

- Defining a balanced policy mix: ensuring that the range of incentive schemes and mechanisms available in the country are complementary and well-articulated, and act together to fill the identified obstacles to FP participation;
- Establishing a targeting strategy: clarifying the priority groups to be targeted for FP participation (public/private, experienced/newcomers), ensuring that the balance of efforts between them is right and that no target group is neglected (notably SMEs, see conclusion 2). Sensible comments were made by MLE participants, e.g. *"don't target the best, they do it by themselves"* and *"don't target those who will never be interested to participate, e.g. companies that face huge barriers in terms of IPR"*;
- Making full use of existing support structures: avoiding fragmented situations where NCPs act 'alone in the system', and are not sufficiently connected to other actors that also contribute to the same goal;
- Creating a dedicated nation-wide knowledge base: ensuring better practice in terms of sharing FP information and the mobilisation of FP expertise;
- Building capacity in line with a longer term and sustainable approach to FP participation, as defined in the strategy;
- Influencing research performers' own strategies: coherent national strategies have an impact on strategic decisions taken at the level of universities and PROs. As mentioned by a participant: *"when the message comes from above, it helps to develop university strategies"*;
- Influencing other relevant policies: for example, in the field of higher education, national goals for FP participation trickle down into university regulations, adding new assessment criteria for researcher career paths (see conclusion 7);
- Gaining political support: integrated strategies for FP participation create linkages with overall STI strategies and with national R&D targets and are seen as contributing to these overarching national goals.

Conclusion 2: Deliberate strategies and instruments to reach SMEs are necessary as this is the most difficult target group to reach in terms of FP participation

A consensus emerged that more and different efforts need to be paid to attract SMEs to participate in FP. Irish good practice shows that it works when bodies that are used to dealing with companies (e.g. Enterprise Ireland) are tasked with such a role. The use of dedicated and professional staff, specialised in SMEs and using SME-friendly tools, is a success factor. The case of Spain demonstrates that the use of the SMEs instrument is very useful, however there is a governmental strategy to avoid that SMEs participation was limited to the SME instrument only.

Another lesson from the MLE is that strategies focused on attracting newcomers are helpful: thanks to such a deliberate strategy, 80% of SMEs participating in the EU SME instrument in Ireland are newcomers.

Conclusion 3: Ensuring the value-added and effectiveness of information services needs to receive more attention

Different NCP models exist and there is no ideal model. The long-lived debate about the respective virtues of centralised versus decentralised NCP models is not a particularly fruitful one. Rather, the lessons below from MLE exchanges could pave the way towards more effective NCPs:

- Information and support services need to take a more pro-active approach (a good example is the Turkish initiative to organise events abroad);
- Support services are more effective when they adopt a client-centred approach (a lesson from the Austrian NCP evaluation);
- Strategies to reach out across a country reinforce effectiveness (good examples came from Sweden, where connections between national and regional actors are included in the NCP work; the case of 'multipliers' in Turkey; and the positive evaluation of the work of regional NCP offices in Austria);
- Achieve better professionalism and effectiveness through networking with existing bodies close to the target group (witness the example of Enterprise Ireland). This could alleviate some of the weaknesses associated with NCP systems that involve 'part-time' jobs;
- A practice that seems very much under-developed is that of evaluating NCPs. This is an avenue for the future, potentially by making use of peer review processes.

The provision of information on national capacities in foreign places was another issue discussed in the MLE workshop. Two cases (meetings abroad by Turkey and 'showcases in Brussels' by Ireland) were proposed as effective modes of communication that could be used to promote research excellence abroad and break a vicious circle of 'low visibility – low FP participation'. This could also be linked to FDI promotion activities, especially in countries where the national FDI strategy emphasises R&D and innovation.

Conclusion 4: Creating synergies between NCPs and other actors reinforces the quality of information and support provided to FP participants

While NCPs are fully dedicated to supporting the entry of national actors into the FP, many other actors in national systems can also contribute to that mission. This will help access 'grey' or unofficial information notably at the stage of WP preparation: access to 'early' and 'tailored' information is a demand from national research performers. Setting up a cooperation platform and cooperation protocols between actors in charge of information provision, such as NCPs, PC delegates and also research stakeholders, is a good practice from Flanders. Making good use and reinforcing connections between NCPs and Programme

Committee delegates is also a way forward, as testified by the experience of Hungary and Turkey.

Connection with other EU networks is also a good way of providing a better response to the needs of would-be FP participants: beyond FP, NCPs could also help them to access other EU relevant networks. When NCPs themselves are involved in other EU initiatives (such as ERA-Nets), this improves their knowledge of existing networks and their access to relevant information.

Along with NCPs, other actors could be mobilised to support R&D players directly in their efforts to participate in FP. The activities of TTOs and university offices for international projects (as demonstrated by the case of the Technical University of Madrid) are potentially important and should be linked to those of NCPs.

Conclusion 5: Building capacity and developing skills related to the design and management of EU research projects should be given priority

With respect to NCPs, the boards of these structures need to ensure that work is not seen as a "*job for free time*" but as a professional occupation. Means and resources need to be dedicated to the professionalisation of advisers.

The good use of monetary incentives can help to create such a skill base: in Spain, the Euroingenio performance-based funding for university EU offices proved a successful instrument to establish sustainable units involving dedicated professionals. It also induced some universities to partner with SMEs in EU projects.

Other good practice tools concerning skills development were identified in the MLE: events and networks for research managers (example from Sweden); specific training programmes (example from Spain); and the use of researchers as EU project evaluators (example from Turkey).

Lastly, building such capacities in SMEs also needs attention, and avenues could be explored such as contracting some private or public entity to provide this service.

Conclusion 6: Financial incentives can help but these need to be well engineered and complemented with non-financial rewards

The MLE discussions revealed that financial incentives for FP participation are vital for less-experienced R&D performers. A few evaluations found that such incentives bring value-added (witness the case of Norway) but also that the symbolic value (in particular for SMEs) of these grants – the prestige of being recognised at EU level – should not be neglected. However, such incentives should be used with care, especially in the more 'FP-experienced' countries: Spain has chosen to concentrate financial support on coordinators; in Austria, the results of the evaluations pointed towards unwanted situations, where value-added was not ensured. At the top end of the spectrum of 'FP-experienced' countries, Flanders has even decided to discontinue the use of such incentives and has now integrated support into existing funding instruments. Sweden also includes FP participation in the operation of regular funding instruments.

A conclusion emerging from the MLE was that, seen from the angle of public research actors, the use of such financial incentives needs to be consistent with university career regulations, which would ideally give credit for such activities and hence act as soft reward mechanisms.

The final concluding word is left to the hosts of the MLE workshop, who reminded the MLE participants about the ultimate goal of efforts to enhance the participation of national actors in EU FP: this can be seen in the picture below.



and why?



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(25/01/2018)



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This report provides lessons learned from the Mutual Learning Exercise (MLE) devoted to widening participation to FP and enhancing synergies between FP and ESIF. The focus of this report is on solutions, to be developed at national level, to address those barriers to entry into the FP which relate to information shortage and skills deficits. It provides a landscape of existing initiatives, and identifies lessons learned through exchanges of experience with respect to practices in five areas: 1) Information, advice and guidance to potential participants to FP, with a specific interest in the NCP system; 2) Strategies for national positioning in FP; 3) Skills development and training for research managers; 4) Incentives in the form of small scale funding for project preparation and reward for researchers or organisations that are beneficiaries of FP funds; and 5) External promotion of national assets and opportunities for FP cooperation.

Studies and reports