

Study on assessing the contribution of the framework programmes on the development of human research capacity

Roundtable on 18 September 2014

Conclusions and Recommendations

1. Conclusions – Points for further attention

Career progression:

- FP has effect positive on **career progress** among senior researchers, How can we interpret it? Is this effect positive (e.g. sustainability among senior researchers; stability to specialize in research topics; but also potential cumulative success effect in leading and managing several FP projects, overcoming the institutional financial restrictions and local competition, via selection within a hyper-competitive, but fair and genuine blind reviewers assessment scenario)
- In order to explain why the **career progress** seems less effective for early stage researchers (ESR) than for senior researchers, further cross-countries analyses are needed in order to take into account the different regulations governing the academic and extra-academic recruitment of ESR at national and even at institutional/organizational level: (see methodological remarks and recommendations about this point)
- **Career progress** seems to decrease in FP participation. Employment episodes are longer. It is suggested that this is to be expected given the longer funding periods under FP participation. Is there a relation? However related to and at the same time nuancing this finding is the observation that **research autonomy** is higher / comes sooner for researchers in FP. Therefore an explanation can be also related to the **higher level of expectations** and the acquired **capability for more work mobility**. They also develop **transferable skills** during the project. [cf. also counterfactual analysis]
- Also **scientific productivity**, not measured here, could be related to HRC as this can further drive careers. Do FP researchers individually and at the level of research training program or collaborative research network produces more/higher quality of publications, patents, spin-offs, ...? [out of scope; but could relate to other ongoing studies].

Industry and higher education profiles:

- Interesting to see the **differences between the profiles**; both sectors have different objectives and are thus likely to have different practices as well. It is good to point these out and take them into account in a more pronounced way.
- These differences also point at the rich exchanges that can take place from cooperation between both.
- The fact that industry participants tend to look for further valorization of the outcomes of a project, and eventually hire researchers to lead this process, is an excellent result from the study. However it should be underlined that the study shows that the majority of the respondent are employed in Higher Education Institutions (HEI), and also the majority of employment episodes refer to HEI both for share of employment episodes with and without FP funding (86% or 85% against the 1% or 2% and 2 or 4% respectively for the private not-for-profit sector and private industry, including SMEs, in the double condition with FP and without FP funding: see table 12)

Bring out the positive:

- Researchers are **driven by content and research excellence capability** of the host Institution/Network of Institutions (confirmed from other studies), more than from contractual

- conditions (however desirability criteria in the response set should also be taken into account to better weight the declared motivations)
- Researchers in FP are **more autonomous in carrying out tasks**.
 - Not sure whether influence on the research agenda is to be considered positive or negative? It is also contra-intuitive to a couple of the experts.
 - **Networking collaborative research opportunities** are highly valorized also by the ESR

Methodological remarks:

- Put **job creation in the right context** (Eurostat data are too different (FTE versus HC)). In order to correctly interpret the study results, it is essential to stress the need for further and more refined cross-countries analyses, which should also take into account the geo-economic and contextual constrains: countries by countries about the ESR career prospects, overcoming the current picture of the data based on the aggregation of the EU 12 countries, the EU 15 countries and Associated countries. In countries (like for example Italy) where the ESR access to the academic careers is very restricted and the limited number of PhD holders is not at all a guarantee of an easier long-term recruitment at University or Research Organizations, due to the very limited budget dedicated to new academic positions for ESR in Italy compared to other EU countries especially Northern EU (Finland, Sweden, Denmark for example). However the fact the FP offers research-training opportunities to potential ESR of any countries is fundamental for opening their horizons even outside their national borders for career prospects.
- **Brain circulation** should be better defined looking at the Eu and non-EU perspective and contextualized (in a national, supranational, European and World perspective) via a comprehensive factual analysis of data also related to the phenomena of **brain drain** and **brain gain**. Also, what is the real interpretation of high/low share of non-EU researchers hired on FP projects: attracting worldwide excellence or inability to hire from inside the EU? Further analysis by countries and **previous institutional belonging of applicants** for EU funded mobility program should be investigated, analyzed and interpreted.
- **Analytical level of country or field/discipline** is important in the analysis and could show important nuances in the general conclusions/discussion statements.

2. Recommendations

Focus:

- Recommendations are too broad and should be limited in terms of scope to the level at which a direct (hands-on) effect can be obtained: the future research funding programmes.
- In a long term perspective, the **harmonization of the European Higher Education System and European Research Area** should push toward the **harmonization also of European Academic and Extra-Academic Researcher's Market and job opportunities and the related Fiscal and Contractual conditions**, overcoming the national (and even institutional) differences, currently dramatically evident as far as it concerns the unemployment rate country-by-country. An analysis that does not take into account the **macro-economic scenario at world, EU and single country level** risks to produce mis-interpretation of the results of this study .
- In terms of content, the recommendations should focus on those aspects that are really central to the researchers careers and employment: **transferable skills, mobility, autonomy, recognition** (e.g. of PhD candidates or early career researchers within FP and the specific contribution FP participation has to their development).
- In this sense, **a FP label, branding**, comes in the picture. FP should be seen as valuable and attractive by future employers. *[This is indeed a finding of the case studies and thus realized to some extent. We could emphasize the positive effect in terms of transferable skills, networking, management, autonomy etc. that we find in this study related to FP participation – in order to give the 'label' a specific and evidence-based content]*. At this regard it should be noted that the label of FP doctoral program like in the past **Erasmus Mundus** or currently the **MSCA ITN or IDP-EJD** has been already recognized by the Ministries of some countries (for example Spain and Italy) as criteria for accreditation at the national level of those doctoral programs approved within the competitive supranational call at the EC level.
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- The fact the FP offers **research-training opportunities to potential ESR of any countries is fundamental for opening their horizons even outside their national borders for career prospects**. It should however **removed the ineligibility for applying for a post-doc position** at the institution where they have been trained as PhD. Taking into account that the post-docs position represents a crucial entry point in the academic career and in his/her life-cycle, if the ESR has already experienced a long term international mobility at undergraduate, master and PhD level, it can be reasonable that he/she will not be obliged to participate in Marie Curie ITN as Experienced Researchers (post-docs) necessarily in an Institution different from the one chosen for his/her PhD. This will also open the way to **long-term scientific collaboration between the training structure and the ESR, hiring the best of them**.
- The recommendations should certainly also build on **positive effects of FP not only at individual level** (e.g. increased skills, transferable skills, research autonomy, importance of research content, etc.), **but also at network/program's and systemic level**.

Sustainability:

- **Sustainability at individual level:** Contractual insecurity (in particular for early stage researchers) is an issue but on the other hand also inherent to project funding mechanisms. Industry-oriented experts confirm the finding that industry employment after the project is more long-term/permanent in nature. This is an important finding that could lead to recommendations in the direction of cooperation with industry/awareness of alternative career options/...
- **Sustainability at system level:** it should not stop with one project or study, the FPs should have a stronger objective of creating/supporting the development of a sustainable and strategic research agenda. In order to promote a genuine dynamics of excellence between newborns and well-established FP funded programs/networks, given that “new” does not means necessarily “innovative” and that “long-term recognized programs/networks” do not mean “traditional”, it is essential **to identify the cases of “excellence” to ensure sustainability via longitudinal analysis of the approved research and training networks transversally funded by different FP** (for example HMC (4 FP), TMR (5 FP), Marie Curie (6 FP), MSCA (7 FP) . This policy will maximize investment of funds for long term programs/networks, avoiding further funds investment in those that disappear after the funded period (see monitoring)
- Sustainability should NOT come from automatically implementing national or regional funding to institutionalize teams after an FP project => competition is necessary at all levels to stimulate excellence and give also early stage researchers a chance.

Awareness creation / principles and guidelines:

- There is discussion on the further encouragement of the implementation of the C&C. One finds it a good idea to give this a prominent position in the recommendations, others find it not relevant to the subject nor building on the evidence and conclusions. If included, the link with the specific evidence and conclusions needs to be clarified and the expected effect shown.
- **Create a glossary of terms to disambiguate polysemic assumption** (for example, the expression “critical mass” once has been introduced and largely diffused with different meaning in different contexts, has been affected by polysemy and ambiguity, referring either in some case in term of numerosity, in other cases in term of excellence)

Monitoring:

- **Promote longitudinal analyses of the approved research and training networks transversally funded by different FP** (for example HMC (4 FP), TMR (5 FP), Marie Curie (6 FP), MSCA (7 FP), even **distinguishing institutionalized committed programs/networks from those who are strategically created only for the funding purpose of specific action, dissolving after the funding period**.
- Monitoring should be harmonized with existing initiatives/tools/questionnaires to collect information (avoid increase in administrative burden).
- **Monitoring should be harmonized with existing databases** (big data, longitudinal data, how data ‘dialogue’ e.g. productivity and output with respect to HRC)
- **Gap in monitoring today is the individual perspective:** career tracking (e.g. ask team leaders to register the first employment step after the project of each researcher/team member).