

Positionspapper om samrådet kring halvtidsutvärderingen av Horisont 2020

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Bakgrund

Forskning och innovation är en nyckel för att nå smart, hållbar tillväxt för alla och EU:s ramprogram för forskning och innovation, Horisont 2020 är ett av de viktigaste verktygen för att förverkliga denna ambition.

Detta positionspapperet utgör Region Dalarnas, Region Gävleborgs och Region Värmlands samlade synpunkter på Horisont 2020. Våra tre län är mycket starka industriregioner som även har viktiga och växande tjänstesektorer, bland annat knutet till besöksnäringen. Det finns starka regionala intresser inom forskning och innovation, framför allt vad gäller att bemöta samhällsutmaningar och att engagera industrin.

Samtidigt har regionerna ett lågt deltagande i Horisont 2020. Det stora undantaget är Karlstad Universitet med mycket goda resultat. Synpunkterna nedan fokuserar på hur Horisont 2020 kan förändras för att förverkliga potentialen för forskning och innovation med långsiktig genomslagskraft, framförallt genom att engagera nya deltagare med onyttjad kapacitet.

Generellt

Tre särskilt positiva trender kan urskiljas i Horisont 2020. För det första är programmets fokus på samhällsutmaningar mycket välkommet. För det andra är öppningen för större samarbeten mellan akademi, näringsliv, offentlig sektor och civilsamhälle särskilt gynnsam. För det tredje är försöken att öka deltagandet från industrin och näringslivet, bland annat genom fler marknadsnära utlysningar lovande.

Vi tror dock att i synnerhet vad gäller den sista trenden kan möjligheterna för industri och innovationsprojekt nära marknaden utvidgas.

Smart specialisering

Smart specialisering bör utgöra en vägledande princip vid prioriteringar inom Horisont 2020. Detta skulle bidra till en tydligare strategisk riktning för forsknings- och innovationssatsningar inom EU, inklusive synergier mellan Horisont 2020 och struktur- och investeringsfonderna. Det skulle också öka nedifrånperspektivet i programmet och möjliggöra användarledd och efterfrågestyrd innovation.

Regionernas roll

Relaterat till smart specialisering så finns det stora värden i att involvera regionerna på ett tydligare sätt i Horisont 2020. Delvis bör regioner i större utsträckning betraktas som potentiella deltagare i Horisont 2020-projekt.

Dock så är regionernas största potentiella bidrag att möjliggöra engagemang från andra regionala intressenter och att säkerställa ett nyttiggörande av projektresultaten. På regional nivå återfinns samarbeten mellan akademi, offentlig sektor, näringsliv, inte minst genom regionala kluster och civilsamhälle och regionalt utvecklingsansvariga myndigheter har en central position i dessa konstellationer.

Beviljandegrad

Horisont 2020 har hittills haft en mycket låg beviljandegrad vilket bland annat har som följd att nya deltagare som programmet helt riktigt söker engagera, stängs ut eller väljer att stanna utanför potentiella ansökningar.

Det är viktigt att inte fler nedskärningar görs i programmet då resurserna redan är ansträngda. Samtidigt bedömer vi att den Europeiska Kommissionens insatser hittills för att möjliggöra alternativa sökvägar för bra men ofinansierade projekt är otillräckliga.

Det är särskilt viktigt att de projekt som tilldelas finansiering är de mest ändamålsenliga och då bör kan återigen smart specialisering som vägledande begrepp vara av stor vikt.

Användning av bidrag och finansiella instrument

Trenden att ersätta bidragsfinansiering med finansiella instrument, som lån, är oroväckande. Bidrag är mer ändamålsenliga, framför allt givet de positiva trenderna i Horisont 2020.

Europeiska Kommissionen bör vara mer transparenta vad gäller mervärdet och innovationsgraden i de projekt som finansieras genom finansiella instrument med resurser som omfördelats från bidrag i Horisont 2020.

Det finns idag ett för ensidigt fokus på hävstångseffekten i finansiella instrument som delvis verkar bero på en hopblandning av projekt *som verktyg* för förändringar och utveckling och projekt *som själva* förändringen. Projekt, i synnerhet inom forskning och innovation, bör betraktas som verktyg för en långsiktig och hållbar förändring och därför bör trenden att ersätta bidrag med lån och finansiella instrument omvärderas.

Position paper from North Middle Sweden on the consultation on the interim evaluation on Horizon 2020

North Middle Sweden (Region Dalarna, Region Gävleborg and Region Värmland)

Background

Research and innovation are key to achieving smart, sustainable and inclusive growth, in line with the Europe 2020 strategy, the Innovation Union and current challenges facing Europe. Horizon 2020 is one of the main instruments by which this development can be achieved and the main instrument to make a significant impact from excellence in European research and innovation.

This position paper presents the response of Region Dalarna, Region Gävleborg and Region Värmland to the consultation on the interim evaluation on Horizon 2020. The three organisations are responsible for regional development in the respective regions in the centre of Sweden. The regions collectively form the NUTS2- and programme area North Middle Sweden. Each region is responsible for a regional smart specialisation strategy and the organisations make up the partnership for the European Regional Development Fund.

All regions are strong industrial regions. Thanks to essential natural resources in ore deposits and forest, an industry has developed in North Middle Sweden, resulting in an advanced industry with an annual turnover of billions of euros. A significant proportion of which is through exports and several companies are investing substantially in research and development. North Middle Sweden is positioned at the global frontier in several fields, such as advanced materials, forest-based bioeconomy and power transmission. The regions are also strong in services, service innovation and creative and cultural industries, particularly linked to a traditionally strong and continually growing tourism sector.

While situated in Sweden, which is an Innovation Leader per the Innovation Scoreboard, North Middle Sweden is categorised as an Innovation Follower in the Regional Innovation Scoreboard. Therefore, there are a lot of strong actors and stakeholders within research and innovation but few traditional centres of excellence of the kind that is common in the leader category. In general, North-Middle Sweden have a low participation in Horizon 2020. The big exception is Karlstad University, a small university in Karlstad with a very successful track-record in Horizon 2020.

However, there is tremendous potential for excellence and high-performing Horizon 2020-projects among the stakeholders in the regions. There are for instance the type of actors not conventionally associated with framework programs, such as enterprises and business clusters

in advanced industry and service innovation, as well as triple and quadruple helix constellations addressing societal challenges in energy, healthy work life, and innovative welfare services.

The points below presents reflections and suggestions on how Horizon 2020 can further unlock the potential for research and innovation with lasting impact, in our regions and Europe as a whole, particularly by reaching out to new participants with underused capacity.

1. General – three well received trends

The thematic allocation of funding in Horizon 2020 has largely been an improvement over previous framework programmes. Three interconnected changes or trends have been particularly valuable. These trends, outlined below, are all welcome and further development in line with the comments below could further improve the performance of the programme and provide needed steps for a flourishing system of innovation in Europe.

First, increased focus on societal challenges is highly welcome. We largely share the formulation of the main challenges in the program.

Second, the emphasis on triple and quadruple helix perspective in consortia-building is beneficial and a necessary step to move towards a programme focused on innovation and utilisation of research.

Third, the many attempts to increase attractiveness to, and the engagement of, business through for example the SME instrument, the Fast-track to Innovation Pilot, the LEIT program and the contractual PPP:s are commendable. The focus on later-stage innovation in higher TRL-levels and close-to-market in some of these and other calls is particularly wanted.

However, a lot more could also be done to increase the amount of calls around close-to-market innovation. This entails both an increase in calls targeted directly at businesses (such as the FTI and SME Instrument) and calls targeted indirectly through clusters, science parks and other intermediaries (such as the highly popular INNOSUP-1 call).

2. Smart specialisation – coordination instead of coincidence

One of the main issue with funding allocation in Horizon 2020 that needs to be addressed, is the lack of a coherent logic or guiding principle in priority setting. One such guiding principle that would ensure strategic alignment between different levels, better advancement of societal challenges, and wider participation of new societal sectors and more synergies, is smart specialisation.

Smart specialisation was developed and implemented in parallel with Horizon 2020. Smart specialisation only moved from design to implementation after Horizon 2020 was operational. Therefore, it is understandable that Horizon 2020 until recently did not base allocation on S3-priorities. However, smart specialisation has now developed to the point where the concept should be made more central to the framework programme for research and innovation in addition to cohesion policy. The maturity of smart specialisation is evidenced by the recent

initiatives and publications by the European Commission, such as the thematic smart specialisation platforms in the fields of energy, agri-food and industrial modernisation¹, and the recently published handbook focused on implementation of smart specialisation, containing numerous examples of successful implementation.²

An enhanced connection with smart specialisation would provide stringency to European research and innovation policy and enable synergies. Involving regions more would improve the bottom-up perspective of Horizon 2020 and thereby enabling user-led, demand-driven innovation and reinforce the positive trends in Horizon 2020 outlined above.

First, the European Commission along with the European Council³, European Parliament⁴ and European regions themselves⁵, among other stakeholders, have highlighted smart specialisation as a core concept in developing an economy based on knowledge and innovation. Indeed, the European Commission frequently stress that smart specialisation should not concern just a thematic objective within cohesion policy but should work to align different instruments across regional, national and European level.⁶

Dalarna is furthermore a member of the Vanguard Initiative⁷ and the pilot project on Advanced Manufacturing for Energy. Värmland is an active partner in the Vanguard Initiative pilot project on Bioeconomy. The Vanguard Initiative and these activities are a testament to the effectiveness of smart specialisation as a core concept in producing highly innovative cases with high participation from industry.

However, despite the acknowledgement that smart specialisation is central to the transformation of Europe towards a knowledge economy, and concrete examples illustrating the benefits, a clear role of smart specialisation regarding agenda setting in Horizon 2020 is lacking. Largely,

¹ Smart specialisation platform, website (<http://s3platform.jrc.ec.europa.eu/s3-thematic-platforms>) last accessed on January 2 2017

² Gianelle, C., D. Kyriakou, C. Cohen and M. Przeor (eds) (2016), *Implementing Smart Specialisation: A Handbook*, Brussels: European Commission, EUR 28053 EN, doi:10.2791/53569.

³ Concil conclusions on "A more R&I friendly, smart and simple Cohesion Policy and the European Structural and Investment Funds more generally", 24 June 2016

<http://data.consilium.europa.eu/doc/document/ST-10668-2016-INIT/en/pdf> last accessed 4 January 2017

⁴ European Parliament resolution of 13 September 2016 on Cohesion Policy and Research and Innovation Strategies for Smart Specialisation (RIS3) (2015/2278(INI))

<http://www.europarl.europa.eu/sides/getDoc.do?type=TA&language=EN&reference=P8-TA-2016-0320> last accessed 4 January 2017

⁵ See numerous initiatives in Gianelle, C., D. Kyriakou, C. Cohen and M. Przeor (eds) (2016), *Implementing Smart Specialisation: A Handbook*, Brussels: European Commission, EUR 28053 EN, doi:10.2791/53569.

⁶ See for instance Niessler, Rudolf (2016) "Policy Framework for S3 Partnerships". Presentation at Kick-Off Event Smart Specialisation Platform Industrial Modernisation, 16 November 2016, slide 3 (http://s3platform.jrc.ec.europa.eu/documents/20182/194256/01.IntroNiessler_TSSP_Barcelona_161116.pdf/1f36018a-d6ee-4d07-99be-0a2abb752eb0) last accessed 3 January 2017.

Furthermore, in the regulation establishing the ESI funds, it was stated that smart specialisation strategies should include both upstream and downstream actions in relation to Horizon 2020. Regulation (EU) No 1303/2013 of the European Parliament and of the Council of 17 December 2013 laying down common provisions on the European Regional Development Fund, the European Social Fund, the Cohesion Fund, the European Agricultural Fund for Rural Development and the European Maritime and Fisheries Fund and laying down general provisions on the European Regional Development Fund, the European Social Fund, the Cohesion Fund and the European Maritime and Fisheries Fund and repealing Regulation (EC) No 1083/2006, 2013 O.J. L 347/414-415

⁷ See Vanguard Initiative website (<http://www.s3vanguardinitiative.eu/>) last accessed January 2 2017

Horizon 2020 priorities are static in relation to smart specialisation which means that connections between smart specialisation and Horizon 2020 are coincidental instead of coordinated.

Concretely, giving more space to smart specialisation could entail giving the thematic smart specialisation platforms, and similar bodies, similar roles to the PPP:s in priority setting. This would be in line with the stated aim of the European Commission to allow the platforms to support the combination of ESI funds and Horizon 2020.⁸ It could furthermore entail taking account of priorities and capacities highlighted in smart specialisation when setting priorities within Horizon 2020 and in later framework programmes. Moving from a coincidental towards a coordinated relationship would add stringency to European research and innovation.

Second, the connection would naturally also assist in creating synergies between the European structural investment funds and the framework programme. Research and innovation in the European Regional Development Fund is completely guided by smart specialisation priority setting and if synergies between the programmes are to be created at the strategic level, then the most apparent solution would be to increase the alignment of priority-setting in Horizon 2020 to the priorities set in smart specialisation. Aligning priorities is still possible without blurring the different main objectives of excellence in Horizon 2020 and cohesion in ESI funds. It would simply create synergies between the two programmes and the objectives.

Similarly, since the advancement of synergies is an important goal, the European Commission should consider incorporating grades in the evaluation procedure on how the project proposal is working systematically with different funding sources, for example by meriting projects that have made conscious and smart sequential or parallel use of ESI funds and the framework programme.

3. Role of regions

Thirdly, intertwined with the concept of smart specialisation there are several potential benefits of increasing the involvement of regions. One of the key features of Horizon 2020 is the emphasis on innovation and impact. Therefore, involvement of end-users is very important, not just in absorbing results of projects, but in participating in projects and the formulation of needs.

In the case of societal challenges, end-users comprise a wide array of stakeholders from the public sector, the private sector, academia and civil society. In some cases, the regional authority responsible for regional development is the main end-users. Therefore, regional authorities should be viewed as potential beneficiaries of Horizon 2020.

However, the greatest asset of regional authorities should be their potential to enable the participation of other beneficiaries. The regional level is the level most associated with the kind of triple and quadruple helix constellations that are needed for user-led innovation to tackle societal challenges, and the regional authority is situated at the core of these constellations.

⁸ S3-platform, website (<http://s3platform.jrc.ec.europa.eu/s3-thematic-platforms>) last accessed on 2 January 2017

Therefore, regions have important roles to play in agenda setting, engaging stakeholders and in guaranteeing that project results do not end along with the project.

Fourthly, reviewing all the well-received trends outlined under heading 1. in this document, a greater involvement of regions could contribute to boosting all the trends. Based on the previous comments regions are well-placed to increase the effectiveness in targeting societal challenges and in engaging fit-for-purpose stakeholders in suitable triple and quadruple helix constellations. Regarding industry participation regions could have a special role in attracting industry, especially through regional clusters.

4. The success rate

Horizon 2020 currently have a very low success rate. In part this is of course a testament to the popularity of the program. Still, a low success rate has several inherent downsides. It will decrease the expected likelihood of success and thereby the propensity to apply in the first place. The potential applicants most likely to be deterred will presumably be inexperienced stakeholders and stakeholders who are previously unfamiliar with the framework programme, applying for public funds, or both. In other words, the same actors whom Horizon 2020 is (correctly) trying to attract will be the first to be discouraged.

Once again, the low success rate is a consequence of overapplication. Therefore, the issue is not whether there will be enough applicants, but rather if it is the right applicants. While experience should be part of the desired applicant, path-dependent participation where the most important trait among successful applicants to framework programmes is previous participation in framework programmes, should be avoided if the programme strives to be dynamic, responsive and truly innovative. Furthermore, all actors, experienced or not, will need to address the opportunity cost of the resources put into a potentially failed application.

There are three general ways of addressing the low success rate; (1) Increased budget, (2) fewer applications and (3) lowering the cost of a low success rate.

- (1) While it is understandable if there are limits to budget increases given current economic and political developments in Europe, two very important issues need to be highlighted. First, the European Commission must safeguard the resources for research and innovation and make it clear that resources are prioritised for research and innovation because, not despite, of current European and global challenges. Second, recent budget cuts to Horizon 2020 are worrisome and should be avoided in the future (see heading 5. below).
- (2) Decreasing the number of applications is likely both difficult and unwanted and should therefore be the least promising way of addressing the low success rate.
- (3) One of the most promising ways of addressing the low success rate is to consider options to create alternative pathways for good but unawarded applications. The European Commission have long argued for this approach and the recent Seal of Excellence initiative is constructive attempt to provide a solution. However, despite the merits of the Seal of Excellence, it is inadequate to the task and in some cases, to the rhetoric of

the European Commission.⁹ Since the Seal of Excellence only applies to the SME instrument, about 95 % of Horizon 2020 call budget¹⁰ is (so far) unaffected by the label. Therefore, the Seal is and should be treated as a good response to the SME Instrument, but to the SME Instrument alone, and not to the entire programme. Furthermore, regarding the possible expansion of the label, the Seal cannot be considered a pilot for the whole programme since the Seal would have to be comprehensively supplemented to address multi-beneficiary projects, in other words, the remaining 95 % of funding. Most acutely, the European Commission would have to complement the SME Instrument with tools for pooling resources from different sources, such as a temporary fund for the project and facilitated administration. Placing the administrative burden of coordinating widely different funding sources in a multi-beneficiary project on the applicants themselves, and presumably disproportionately on the project coordinator, would likely not yield much improvements. Once again, it is also worth stressing that a greater connection between Horizon 2020 with smart specialisation would also ensure that other regional and national funding sources are aligned with proposals to Horizon 2020 which is needed for a supplemented, as well as the current, Seal to work.

Lastly, and independently of all proposals above, resources will, and should, be competitive in Horizon 2020 and therefore a competitive success rate is still wanted (although in line with the comments above quite far from today's levels). However, the scarce resources in Horizon 2020 and upcoming framework programmes need to be used as smartly as possible. While the independent experts, advisory groups and national experts involved in Horizon 2020 priority setting represents a world-leading collection of competence and knowledge on excellence in a wide array of fields; This knowledge can still only represent partial knowledge about the supply of relevant research and innovation, and yet less complete knowledge about the demand for solutions (industrial or societal). Therefore, connecting priority-setting in Horizon 2020 to priorities, analysis and engagement in the regions, would be highly beneficial. Not just through regional experts, but through an increased connection between the framework programme and smart specialisation strategies (see 1.).

5. Use of grants versus financial instruments

We are concerned about the tendency to increase the use of financial instruments (FI's), such as loans, at the expense of grants in European instruments. The main issue is not the use of FI's *per se* but rather the tendency to *replace* grants with FI's, mainly exemplified by the cuts to Horizon 2020 to fund the guarantee for the European Fund for Strategic Investments.

⁹ We refer here to the tendency by the European Commission to describe the Seal of Excellence as a measure addressed to projects in Horizon 2020, and not specifically to the SME Instrument. See for instance the European Commission website on the Seal of Excellence (<https://ec.europa.eu/research/regions/index.cfm?pg=soe>) last accessed on 3 January 2017. The visitor must move past the first page and then read several paragraphs and mentions of the Seal being addressed to proposals under Horizon 2020, before being informed that it only applies to the SME Instrument, as well as the Teaming call.

¹⁰ Estimates based on the 2016-2017 Work Programme. SME Instrument has a budget of 353,4 (2016) + 437,51 (2017) million against a total call budget of almost 16 billion.

Grants and financial instruments work per different logics. Returning to the promising aspects of Horizon 2020, it is very unclear how FI's will encourage a greater focus on societal challenges or stimulate triple and quadruple helix partnerships. Mainly since the instruments are greatly geared towards the private sector and commercial entities. However, even in stimulating more commercial and business-oriented research and innovation, the merits of FI's are unclear. Europe has long had difficulties bridging the valley of death in technological development. Because of the risk involved, the main solution should be more grants available at higher TRL-levels, as opposed to more FI's at lower TRL-levels. The benefits of FI's in stimulating non-technological innovation such as service and organisational innovation are also unclear. The use of FI's, and the direct targeting of businesses, furthermore overlook the importance of partnering with intermediary organisations such as cluster organisations and science parks, and the important role universities can play in building linkages with the business community.

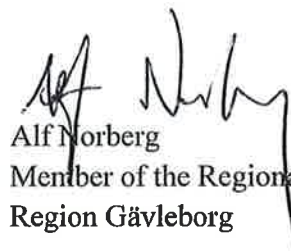
Grants allow for greater risk which is needed to innovate. The proposition that FI's will enable high-risk projects, particularly in the case of EFSI, is doubtful. A recent review by the think-tank Bruegel which analysed the similarities between projects under EFSI and existing EIB projects found that only 1 of 55 projects financed by EFSI at the time of writing was distinctly different from EIB's other projects.¹¹ Admittedly, there is too scarce information available to conclude that this is the case, but the review raises yet more questions around the merits of FI's. We urge the European Commission to be more transparent regarding the additionality and innovativeness of projects financed by FI's through EFSI and other measures.

Instead, the main arguments for EFSI has been the (so far successful) leverage effect of 1:15 or more. However, we believe that the one-sided focus on leverage effect is based on a confusion between projects *as tools for* development and projects simply *as the* development. In the latter case, the project input or project result (volumes of investment for instance) is equated with the outcome or impact. Projects, not least in research and innovation, should always be considered tools for lasting and transformative impact where project results feed structural change which generate sustainable outcomes. In that context, we urge the European Commission to reconsider the recent trend to replace grants with FI's.

¹¹ Claeys, Grégory and Leandro, Alvaro (2016). "Assessing the Juncker Plan after one year". Bruegel, Blog post (<http://bruegel.org/2016/05/assessing-the-juncker-plan-after-one-year/>) last accessed January 2 2017



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