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Research policy: A guide to the negotiations on Horizon Europe

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In June, the Commission tabled its proposal for the multi-billion research programme Horizon Europe. The European Parliament and the Council are now called upon to agree on the legislative package before the forthcoming European elections. In the coming months, the institutions will lay the foundations of European research policy for 2021 to 2027 and determine its budget. This blog post explains the priorities of the Commission proposal and the political questions that will be at the centre of the negotiations.

1 The tug of war on Horizon Europe has begun

On 7 June, the European Commission put forward its proposed regulation for “Horizon Europe”, the EU’s next multi-billion research & innovation (R&I) fund and successor to the current framework programme known as “Horizon 2020”. The coming months will be decisive, as the Horizon Europe regulation will set the course of research policy for the duration of the EU’s next multiannual financial framework (MFF) 2021 to 2027. Stakeholders’ efforts to influence the proposal can be expected to fall broadly within one of three categories: first, the overall budget of Horizon Europe; second, the distribution of funding within Horizon Europe; and third, the design of individual programmes, instruments and governance.

This blog post provides a guide to the Commission proposal and to the upcoming negotiations among the Council and European Parliament as co-legislators. What is important in the Horizon Europe proposal? Which priorities and constraints does the proposal reflect? And what will be potential points of conflict?

2 How big is the proposed budget increase for R&I?

Setting the budget for Horizon Europe is part of the process to establish the EU’s MFF 2021-2027. While the Brexit-gap does not leave much room for overall budget increases, the Commission has argued that it will seek to shift funding towards policy areas with clearer European added value and named R&I as a rare budget item that deserves more funding.

At first sight, however, the budget increase looks modest next to other items like migration and border management. The Commission proposed a total budget of EUR 94.1 billion over seven years for Horizon Europe plus EUR 3.4 billion for financial instruments (InvestEU). This is an increase of just 27% (in nominal terms) compared to the EUR 77 billion that were granted to Horizon 2020 in the last MFF and much less than the EUR 120 billion that was suggested by the independent [Lamy group](#) as the very minimum for continuing the programme without risking its effectiveness. Both figures reflect current prices, i.e. the amount that is actually spent in a given year. An [analysis of the MFF proposal](#) by researchers at the Delors Institute suggests that the increase in real terms that is adjusted for inflation might be just a quarter of the nominal rise.

Having said that, it is problematic to directly compare the new and old headline figures for several reasons. First, the Horizon Europe budget will be for the EU27 only. By leaving out the UK, which so far has received 14% of Horizon 2020 funds, the nominal increase for the remaining 27 is closer to 47%.¹ Second, the MFF proposal as a whole earmarks additional funding for programmes related to R&I policy that fall outside of the Horizon Europe umbrella. For example the new Digital Europe Programme will invest in supercomputers and research on artificial intelligence among other things, meaning that the next EU budget will provide more funding opportunities for innovators than Horizon Europe on its own. Taking everything

¹ According to the latest figures (July 2018), UK beneficiaries received 14% of Horizon 2020 funding, which would amount to EUR 10.8 billion of the original budget. However, this calculation overlooks that the Horizon 2020 budget was reduced to EUR 74 billion due to a reallocation of funding in favour of the European Fund for Strategic Investments.

together that concerns research, innovation and infrastructure investments, my colleagues estimate that the MFF proposal projects [a budget increase of 34% in real terms](#).

3 What priorities does Horizon Europe reflect?

Like its predecessor, Horizon Europe is structured around three pillars, though the Commission proposal suggests a substantial reorganization and redesign of programmes, in particular of thematic activities (i.e. those activities that are geared to specific fields of research such as health, digital or energy).

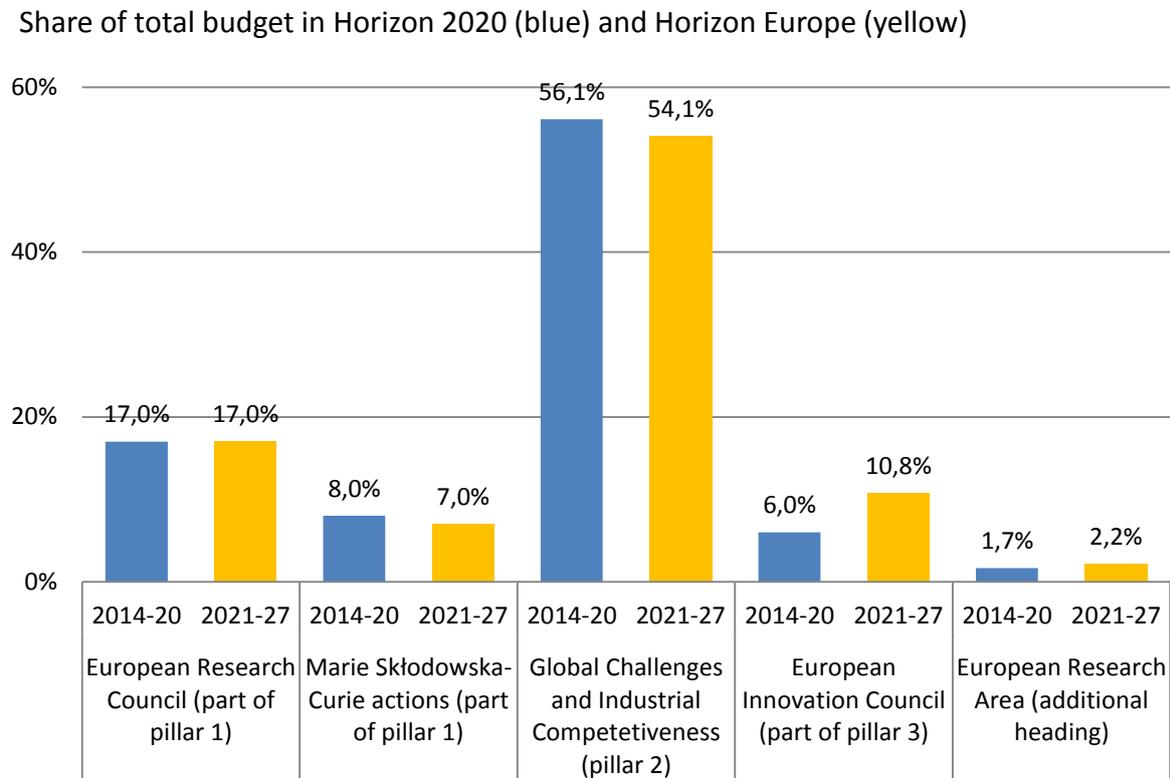
The new Pillar One, **Open Science**, which accounts for 27% of the proposed budget, largely resembles the old “excellent science” pillar. It mainly consists of two programmes, the European Research Council (ERC) and Marie Skłodowska-Curie actions (MSCA), which support individual researchers through grants. Both programmes have a proven track record and will carry on without major changes, although MSCA’s share has decreased in Horizon Europe (see figure 1). This pillar is particularly important for universities and research labs.

The proposal for the new Pillar Two, **Global Challenges and Industrial Competitiveness**, is more contentious. It integrates the previous third pillar “societal challenges” as well as the “Leadership in enabling and industrial technologies” (LEIT) programme, which accounted for 80% of the previous second pillar aka “industrial leadership”. This new Pillar Two thereby becomes a superstructure for all top-down curated and thematically targeted activities, accounting for 54% of funding. Industry representatives are concerned that the disappearance of a dedicated pillar could lead to fewer funds available for businesses. The new Pillar Two also further consolidates thematic activities. While previously there were five different LEIT themes and seven different societal challenges, this has now been reduced to five “clusters”. The consolidation aims to increase flexibility as well as enable more interdisciplinary activities but is not necessarily in the interest of member states and beneficiaries that prefer earmarked funds for specific activities.

The new Pillar Three, **Open Innovation**, is proposed to account for 14% of the new budget and features one of the Commission’s major novelties in Horizon Europe. 78% of its funds are supposed to go to the newly created European Innovation Council (EIC), which bundles various instruments targeted at start-ups or small and medium enterprises (SMEs) to form a one-stop-shop for innovators. It is important to stress that activities subsumed under the EIC are not entirely new but were previously used across thematic activities (e.g. the SME instrument). What is new is the creation of a business-focused pillar that is mainly bottom-up driven, meaning applicants are not bound by thematic prescriptions. Consequently, the increase in funding for the EIC and the slight decrease in the share of thematic activities should be interpreted as an adjustment of the method rather than radical change of approach.

To sum up, the first pillar, which is focused on the individual researcher either to support excellent science (ERC) or their mobility (MSCA), remains largely unchanged. The main change lies in the re-organization of the second and third pillar. Whereas the previous programme differentiated between research with industrial relevance and research with societal relevance, the Horizon Europe proposal differentiates between a thematic and top-down oriented second pillar and a bottom-up driven third pillar.

Figure 1: Key budget allocation in Horizon 2020 (adopted) and Horizon Europe (proposal)



Source: Author's own calculation.

4 Things to watch in the upcoming negotiations

Trying to sign off the legislation before the European elections in May 2019, the Commission has suggested a so-called fast track approach, which aims for a broad political agreement on the legislative package by March or April. This imposes a tight schedule on co-legislators, with some MEPs and Council members deem overly hasty, resulting in rushed decisions. Both the EP and the Council are expected to start discussions on their positions after the summer break and adopt them formally by November.

The EUR 100 billion question

The headline figure for Horizon Europe is the most frequent source of discontent in the R&I community and the EP rapporteurs Dan Nica and Martin Ehler already have stated that the budget is insufficient to achieve the programme's aspired-for goals. Unsurprisingly, most stakeholders call for a budget of at least EUR120 billion and the EP is expected to adopt a similar position.

The picture changes when looking at the Council. Among member states [R&I policy might be missing a constituency that would truly fight for a larger budget](#). Due to the excellence principle, many member states that are net contributors to the EU budget attract disproportionately high amounts of R&I funding thanks to their strong research systems. These countries, such as the

Netherlands or the Scandinavians, are, however, unlikely to fight for a higher budget for Horizon Europe as their overriding priority in the MFF negotiations is to avoid higher contributions. By contrast, net recipients and in particular Central and Eastern European member states usually benefit comparatively less from Horizon Europe than from other EU funds, so they are likely to push for more cohesion or agriculture funding instead. Therefore, it seems unlikely that Horizon Europe will emerge from the MFF negotiations with a higher budget than is currently proposed.

Industrial policy or research policy?

EU R&I policy has its roots in industrial policy but, as it expanded, has taken on more and more programmes that are in the realm of classic research policy. Thereby, universities and individual researchers have increased their share as beneficiaries, in particular with the scale-up of the ERC and MSCA. Today, the main beneficiaries are businesses of all sizes – in particular from the industrial sector and researcher and research institutions such as universities or public labs alike. These two groups have naturally diverging interests as is demonstrated in the reactions from different interest groups to the Horizon Europe proposal that are assembled in a [blog](#) by Science|Business.

Industry lobby groups would like to see more funding going to Pillar Two, which will be the main funding source for classic collaborative and applied R&I activities that are traditionally undertaken by transnational consortia including industry and research institutions. Businesses also welcome the focus on close-to-market innovation in start-ups and SMEs embodied in the EIC. University associations by contrast highlight the proven track record of the ERC and MSCA programmes and their importance to promote excellent science. While they also benefit from Pillar Two activities, they voice criticism about the rather moderate increase in ERC funding and a lower share for MSCA funding.

How detailed should budget allocations be?

For member states, the distribution of funding matters in so far as they have their national R&I landscape as a potential beneficiary in mind. If they are to forecast the potential benefit, member states prefer to see a relatively detailed breakdown of funding. This is at odds with the Commission's current attempt to reduce the number of themes and make budget allocations more flexible. The idea is to commit fewer resources in advance of the seven-year-period and instead steer Horizon Europe through a so-called "strategic programming process".

So far, there is no formalised process under Horizon 2020 to review and adjust the general strategic direction for R&I policy on a regular basis. Instead, work programmes focus on implementation of the once agreed budget and the planning of activities takes place within individual programmes and is rather fragmented and granular. The newly proposed process seeks to streamline and possibly politicize planning in Horizon Europe as this would make it easier to reshuffle funding and react to unforeseen developments. While the new process can improve the management of the framework programme, it would also grant the Commission additional powers. Member states and the EP question whether they can sustain their influence in the new process and therefore might aim for a more detailed budget breakdown in the upcoming negotiations.

What are the new tools good for?

The Commission introduced a number of new instruments such as the EIC or so-called missions, which are supposed to focus R&I activities on a few highly visible targets and thereby increase impact and public awareness. While the EP seems generally open to new approaches and tools,

many member states are more cautious. For them, two considerations are particularly important: First, does a new policy duplicate what is already done at member state level and thereby expand EU competences over R&I policy? And second, does the Commission seek to coordinate member state policies and thereby squeeze the national level?

For both the EIC and missions, these questions seem relevant. The EIC has already been [criticized](#) for duplicating SME support schemes at member state level but it has also won positive reactions from business groups. University and business associations have also reacted positively to the introduction of missions as a policy tool but raised questions about the budgetary implications as the proposal does not earmark funds in Pillar Two, that introduces missions. In a [recent policy paper](#), where I discuss the potential risks and benefits of missions for EU R&I policy, I argue that for them to reach their full potential, missions should indeed act to structure member state policies as their strength is to coordinate and focus activities across levels of government, industrial sectors and research institutions to achieve technological breakthroughs.

5 Conclusion

At first sight, the reorganisation of programmes under Horizon Europe looks like a significant departure from Horizon 2020. When analyzing the proposal in greater detail, however, one realizes that budget allocations have not changed dramatically, which fits the Commission's promise of an "evolution, not a revolution".

Four political questions are likely to be at the centre of the upcoming negotiations: (1) how much funding can Horizon Europe secure from the MFF; (2) how will these funds be distributed between the main building blocks; (3) will Horizon Europe be governed more flexibly with less money fixed in advance and (4) will co-legislators support the new tools as proposed by the Commission?

So far, R&I policy featured prominently in the broader MFF discussion. To maintain this momentum also during the Horizon Europe negotiations is crucial as the answer to the first and potentially most important question, eventually depends on finance ministers.

Table 1: Budgetary breakdown of Horizon 2020 and Horizon Europe (in current prices in EUR million)

Horizon Europe (2021-2027)		Horizon 2020 (2014-2020)	
I Open Science	25,800	I Excellent science	24,441
1. European Research Council (ERC)	16,600	1. European Research Council (ERC)	13,095
2. Marie Skłodowska-Curie actions	6,800	2. Future and Emerging Technologies (FET)	2,696
3. Research infrastructures	2,400	3. Marie Skłodowska-Curie actions	6,162
II Global Challenges and Industrial Competitiveness	52,700	4. Research infrastructures	2,488
1. Health	7,700	II Industrial leadership	17,016
2. Inclusive and Secure Societies	2,800	1. Leadership in enabling and industrial technologies (LEIT)	13,557
3. Digital and Industry	15,000	2. Access to risk finance	2,842
4. Climate, Energy and Mobility	15,000	3. Innovation in SMEs	616
5. Food and Natural Resources	10,000	III Societal challenges	29,679
6. Joint Research Centre (JRC)	2,200	1. Health, demographic change and well-being	7,472
III Open Innovation	13,500	2. Food security, sustainable agriculture and forestry, marine, maritime and inland water research, and the bioeconomy	3,851
1. European Innovation Council (EIC)	10,500	3. Secure, clean and efficient energy	5,931
2. European Institute of Innovation and Technology (EIT)	3,000	4. Smart, green and integrated transport	6,339
Strengthening the European Research Area (ERA)	2,100	5. Climate action, environment, resource efficiency and raw materials	3,081
1. Sharing excellence	1,700	6. Europe in a changing world – Inclusive, innovative and reflective societies	1,310
2. Reforming and enhancing the European R&I system	400	7. Secure societies – Protecting freedom and security of Europe and its citizens	1,695
TOTAL Horizon Europe	94,100	IV Spreading excellence and widening participation	817
InvestEU	3,400	V Science with and for society	462
Euratom nuclear research	2,400	VI Non-nuclear direct actions of the Joint Research Centre (JRC)	1,903
TOTAL R&I	99,900	VII The European Institute of Innovation and Technology (EIT)	2,711
		TOTAL Horizon 2020	77,028

Source: Horizon 2020 regulation and Horizon Europe draft regulation.

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