

EUROPEAN UNION

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EUROPEAN RESEARCH AREA
AND INNOVATION COMMITTEE

– ERAC –
Secretariat

ERAC 1209/14

NOTE

To:	Delegations
Subject:	ERAC opinion on Member States' reporting on Research and Innovation reforms in view of their National Reform Programmes

1. Context

As part of the European Semester of enhanced economic policy coordination, Member States are required to submit in April each year updated National Reform Programmes (NRPs) presenting, in particular, the main policy developments and their expected impact in the context of the Europe 2020 strategy. At the start of each European Semester, the Commission provides policy orientations in its Annual Growth Survey (AGS)¹ and guidance on the content and format to help Member States draft their NRPs. Further policy guidance is issued by the European Council at its meeting in the spring.

¹ http://ec.europa.eu/europe2020/pdf/2014/ags2014_en.pdf.

As in previous European Semesters, Member States are required in their 2014 NRPs to:

- present reform measures (planned or already enacted) that respond to each of the Country Specific Recommendations (CSRs) adopted by the Council in 2013, including their main policy objectives, state of implementation, timetables, budgetary implications and foreseen impact;
- take stock of progress towards their national Europe 2020 targets, informing about any changes in performance and/or level of ambition, and present the reform measures that will contribute to achieving these targets, distinguishing between measures already being implemented (with progress reports) and new measures, whilst highlighting their expected impact. For their 2013 and 2014 NRPs, Member States were invited to outline actions to complete the European Research Area (ERA);
- Report on additional reform measures addressing AGS priorities and Euro Plus Pact commitments or adopted under Europe 2020 flagship initiatives. For their 2014 NRPs, Member States are invited to briefly outline how consistency is being ensured between their funding priorities for 2014-2020 and their national Europe 2020 headline targets.

In addition, the 2014 AGS calls on Member States to accelerate the reform of their national research systems in line with the European Research Area (ERA). In December 2013, ERAC adopted an opinion on the ERA Progress Report 2013, which stressed the need for an appropriate and detailed monitoring of national policy developments contributing to the objectives of the ERA and to connect this reporting closely to the European Semester. In order to do this reporting in a pragmatic way, the ERAC opinion recommended² *"limiting the role of ERA-related measures in the National Reform Program to the new and most relevant initiatives"*.

² ERAC opinion on the ERA Progress Report 2013, conclusion 26.

2. Analysis

As shown by the analysis of the structure and content of the 2013 NRPs, R&I reform measures are not reported in a similar way in all NRPs. Depending on the Member State, the emphasis of the reporting ranges from the policy response to CSR to measures contributing to the national R&D intensity target and measures corresponding to the AGS priorities. Such differences of approach do not only concern the reporting on R&I reform measures and are decided at a high level in each Member State.

There is also the perception that the inputs prepared by national authorities in charge of R&I policies are often not reflected fully in the final NRPs by those coordinating their drafting. This is logical since the format of the NRPs does not allow for a lengthy presentation of the various R&I reform measures that are relevant in the context of the Semester.

As a result, the R&I content of the 28 NRPs tends still to differ in substance, level of detail and structure from one Member State to another, thereby hampering the effective dissemination and use of what is a valuable source of information about Member States' R&I policies. This constitutes a lost opportunity in terms of mutual policy learning which is one of the objectives of ERAC.

Another important finding (or confirmation) arising from the analysis of the 2013 NRPs is that the R&I reform measures reported in the NRPs do not constitute either a comprehensive or a representative set of the R&I policies in place in a Member State. To state the obvious, little or no reporting will be expected from a Member State that has received no CSR questions relating to R&I from the Council and has achieved its national R&D intensity target. That Member State is likely, however, to have a well-functioning R&I system supported by a rich and diverse mixture of R&I policies. In other words, other sources of information on Member States' R&I policies are needed to gain a full picture of the current state of, and recent developments in R&I policies across the EU.

3. Main issues

There are therefore two main issues at stake:

- National authorities in charge of R&I devote a lot of effort each year to preparing, with a view to the NRPs due in April, input on the implementation of existing measures, the preparation of new ones and the evaluation of their impact in the context of Europe 2020. How could these inputs (hereafter referred to as the “R&I inputs to NRPs”) be structured and used to support mutual policy learning in the context of ERAC?
- Through their very nature, NRPs focus on recent or planned reform measures and cannot provide a comprehensive overview comparing the R&I policy mixes in place in the different Member States. Which other source(s) of information on R&I policies could be used or developed to complement the information included in the NRPs and in the R&I inputs to NRPs?

These issues are compounded by the fact that most, though not all, national authorities in charge of R&I are involved in additional reporting on the reform of their national research systems both to the OECD (cf. STI Outlook Survey) and in the context of the completion of the European Research Area (cf. 2014 AGS and ERAC opinion on the ERA Progress Report 2013). This increasing reporting burden on many Member States calls for some streamlining of the various reporting exercises in the field of research and innovation. These two issues are addressed separately in the next two sub-sections, prior to the final section on recommendations.

3.1 R&I inputs to NRPs

The inputs prepared by national authorities in charge of R&I are usually much broader and more comprehensive than the single page contributions on R&I that are eventually included in the NRP. On the other hand, national authorities in charge of R&I can to a large extent decide for themselves how they will structure, and what they will include in these internal inputs, which do not constitute official documents submitted by Member States.

Without prejudice to overarching EC guidance provided by the Secretariat General of the Commission³ and to how each Member States decides to structure its NRP and present the R&I reform measures therein, the national authorities in charge of R&I are advised to prepare and share, on a voluntary basis, their R&I inputs to NRPs via a three-pronged structure:

- Analysis of progress towards the national R&D intensity target

Confirmation of the national target or level of ambition; where appropriate explanation of the reasons behind any modification.

Brief description and explanation of the evolution of R&D investments, broken down into funding sources (public, private, not for profit, foreign⁴) and types of expenditure (GOVERD, HERD, BERD); graphs and an explanation of the intended trajectory for reaching the target by 2020. Eurostat regularly updates these indicators but this is not enough to assess the performance of national research systems. This section should explain the underlying reasons for changes in the level of R&D investments. It could highlight, for instance, whether an increase in BERD is due to increased public or private funding, and in which sectors. Large public initiatives and private investments should be reported.

³ Annex 2 to the EC note of 16.10.2013 'Economic governance developments in autumn 2013 and the next European Semester', sent by the Secretary General to Permanent Representatives.

⁴ Including EU funding through the R&I framework programme, structural funds and tax credits.

– Specific role and expected contribution of R&I to growth and jobs in the national context

R&I does not play the same role in all national economies, since this depends partly on the structural composition of the economy (e.g. share of services and share of high-tech sectors) and the availability and/or productivity of other production factors. This is reflected to some extent in the differences in national R&D targets. This section should explain the objectives of and rationale behind the main R&I policies and their expected effects in the broader economic context of each Member State, focusing in particular on structural aspects (i.e. aspects related to the structure of the economy) and other policy drivers defined in the context of the business/industrial/competitiveness policy (e.g. reindustrialisation, transformation of the energy mix etc.). It should clearly link the national R&D target and level of R&I ambition to the broader policy perspective of the Member State. The Commission (DG RTD) publishes every year a set of country fiches which assess Innovation Union (IU) progress at national level. National authorities in charge of R&I could regularly review these fiches and use them as reference material for preparing this section.

– Main policy developments in the field of R&I based on a common policy taxonomy

Starting from a comprehensive coverage of the R&I policies in place, this section should focus on those policies which are contributing the most to progress towards the national R&D target, IU commitments and ERA objectives and, where appropriate, to addressing a Country Specific Recommendation concerning R&I. The emphasis will be on planned modifications of these measures and on the introduction of new ones. For the sake of simplicity, comparability and future mutual learning activities, these measures will be presented based on a common structure and policy taxonomy jointly agreed with the OECD (see 3.2 below).

In particular, given the current specific focus of EU research policy on completing the European Research Area, Member States are invited to highlight (in more detail) their most important R&I policy measures (recently adopted, under preparation or planned) contributing to the main ERA priorities⁵. The ERA Facts and Figures accompanying the ERA Progress Report 2013 contain country-specific analyses and lists of policy measures which have been validated by national authorities in charge of R&I and which could be regularly updated to serve as reference material for preparing this section. Member States would, however, be expected to single out their most ERA-relevant policy developments and not to provide a comprehensive description of each and every ERA-related policy measure.

The main ERA priorities are:

a) More effective national research systems

- Putting competitive funding and performance-based institutional assessments at the core of national research funding decisions

b) Optimal transnational co-operation and competition

- Aligning national research programmes to implement commonly agreed strategic research agendas in the context of joint programming
- Improving interoperability between national programmes to facilitate cross-border research cooperation
- Ensuring more transparency in the conditions for transnational access to research infrastructures
- Addressing financial, management and political barriers to the development and implementation of research infrastructures

⁵ Doc. 12848/12 of 23 July 2012.

- Aligning research infrastructures roadmaps and coordinating their development
- c) An open labour market for researchers
- Ensuring that all research positions are subject to open, transparent and merit-based recruitment procedures
 - Removing barriers preventing the implementation of access to, and the portability of national grants
 - Promoting a wider uptake of the innovative doctoral training principles, including, where appropriate, through use of the European Structural and Investment Funds
- d) Gender equality and gender mainstreaming in research
- Implementing comprehensive strategies of structural change to overcome gender gaps in research institutions and programmes
- e) Optimal circulation, access to and transfer of scientific knowledge
- Continuing to deploy efforts on provision of open access to publications
 - Continuing to set an adequate policy framework for open access to data
 - Setting in place conditions for supporting the "Digital ERA": seamless online access to digital services for collaboration, computing and accessing scientific information; the grouping of electronic identities for researchers; and harmonised access and usage policies for e-infrastructures and digital research services
 - Further defining, implementation and assessment of national knowledge transfer strategies

In addition to reducing the reporting burden on national administrations and facilitating mutual policy learning amongst Member States, such R&I inputs to NRPs could also be used to facilitate the fact-finding missions organised by Commission services at the start of each European Semester.

3.2 Other sources of information on R&I policies

There is increasing scope for establishing ongoing cooperation with the OECD on the STI Outlook Survey⁶ and future database, which seem to offer a very solid conceptual basis for establishing the common structure and policy taxonomy mentioned above.

The table in the Annex is based on the structure and content of the latest OECD STI Outlook Survey, which takes into account comments provided by OECD countries and the Commission. The third column ('Specific emphasis of the European Semester, reflecting in particular IU and ERA reforms') highlights or adds specific policy aspects which are particularly relevant in the context of the European Semester. It includes the type of policy measures that were reported in the 2013 NRPs⁷ as well as additional reforms intended to align national R&I systems with IU and ERA objectives. This will allow national authorities, in most cases, to 'drag and drop' input provided in the OECD reporting (shown in bold in the first two columns) and to focus their reporting efforts on a limited number of aspects that are more EU-specific (described in the third column). It is important to point out that while the alignment of these two reporting streams would reduce the reporting burden on those Member States which are both EU and OECD members, it would increase the reporting burden on those EU Member States which are not OECD members. This calls for streamlining of reporting

4. Recommendations

- DG RTD is invited to support the further alignment of the structure and content of the OECD STI Outlook Survey and future database with the needs of policy reporting in the context of ERA and Europe 2020, leading to a new joint Survey and database that will effectively reduce duplication in practice, and facilitate comparability across the EU. In particular, this should include the current ERAC Survey on R&I Investments. ERAC is

⁶ OECD Policy Questionnaire on STI Outlook 2014.

⁷ As analysed in the note presented at the ERAC meeting in Dublin in June 2013.

invited to discuss the issue of reporting burden and propose solutions for its alleviation within the context of the above work by DG RTD.

- ERAC members are invited to follow the proposed guidance for preparing their respective R&I inputs to NRPs and agree to share it within ERAC after the submission of NRPs in April each year, with a view to enhancing and developing mutual policy learning within ERAC. ERAC observers are invited to provide similar reports on their R&I reforms, which will be analysed and handled in the same way as the R&I inputs to NRPs of ERAC members.

Proposed structure and policy taxonomy for the internal reporting on R&I reforms

OECD Policy Questionnaire on STI Outlook 2014		Specific emphasis of the European Semester, reflecting in particular IU and ERA
A. INNOVATION POLICY GOVERNANCE		
1) National R&I strategy	<ul style="list-style-type: none"> • List of reference documents • Where appropriate, main changes in the strategy and rationale for these changes 	<ul style="list-style-type: none"> ✓ Main R&I policy priorities and S&T prioritisation ✓ Links with industrial/business policy and impact of smart specialisation approach
2) R&I policy governance	<ul style="list-style-type: none"> • Overall public funding of R&I (recent & forecasted changes in public budgets for R&D) • National forecasts of R&D expenditure • R&I governance arrangements, including strategic policy intelligence & direction setting • Role/participation of stakeholders • Structure and modalities for R&I policy coordination 	<ul style="list-style-type: none"> ✓ Governance structures/modalities, including funding organisations and coordinating bodies ✓ Strategic intelligence, including foresight activities and monitoring of global/emerging markets ✓ Strengthened public funding of R&D, including for basic research

3) Evaluation practices	<ul style="list-style-type: none"> • Trends in evaluation policy • Major evaluation exercises and evaluation arrangements at the level of the R&I system as a whole, specific policy areas, programmes or instruments, institutions or staff • Impact of evaluation • Institutionalisation of evaluation 	✓ Evaluation or expected impact of recent/planned measures to progress towards the national R&D target and – where appropriate - in response to the CSR on R&I
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B. UNIVERSITIES AND PUBLIC RESEARCH		
	<ul style="list-style-type: none"> • Reforms in the governance of universities and public research institutions to improve the quality and relevance of public research 	<ul style="list-style-type: none"> ✓ Modernisation of HE/research institutions, including through contractual agreements with the government ✓ Framework conditions for providing incentives and rewards to academics engaged in cooperation with industry/users
1) Funding of public research	<ul style="list-style-type: none"> • Prioritisation and consolidation of public research funding • Balance between basic research, applied research, experimental development and demonstrators • Competitive and performance-based funding • New funding mechanisms including full economic cost recovery • Measures to leverage funding of public research 	<ul style="list-style-type: none"> ✓ Measures to put competitive funding and performance-based institutional assessments at the core of national research funding decisions ✓ Shift in public research funding mechanisms

2) Public research infrastructures	<ul style="list-style-type: none"> • Measures to strengthen public research infrastructures 	<ul style="list-style-type: none"> ✓ Measures to ensure more transparency of the conditions for transnational access to research infrastructures ✓ Measures to address financial, management and political barriers to the development and implementation of research infrastructures ✓ Alignment of research infrastructure roadmaps and coordination of their development at EU level
3) Multidisciplinary research	<ul style="list-style-type: none"> • Measures to overcome the main barriers to multidisciplinary research 	

C. INNOVATION IN FIRMS		
1) Policy mix for business R&I	<ul style="list-style-type: none"> • Balance between different policy instruments supporting R&D and innovation; recent changes and forecasted changes 	
2) Financing business R&I	<ul style="list-style-type: none"> • Trends in public funding of business R&I, in terms of budget and (balance between) instruments • Direct public funding instruments of business R&I (grants/subsidies, debt financing, innovation vouchers) • R&D and innovation tax incentives (on R&D expenditure, IP revenues/patent box or other) 	<ul style="list-style-type: none"> ✓ Main supply-side measures, including R&D tax incentives and pre-commercial procurement
3) Non-financial support to business R&I	<ul style="list-style-type: none"> • Non-financial incentives to spur business R&D and innovation 	<ul style="list-style-type: none"> ✓ Measures facilitating access to private finance

4) Stimulating demand for innovation	<ul style="list-style-type: none"> • Use of public procurement for innovation • Other demand-side instruments 	<ul style="list-style-type: none"> ✓ Demand-side measures, in particular PPI ✓ Subsidies and other support (e.g. tax incentives) provided for the uptake of new innovative products
5) Sector- & technology-targeted programmes to promote business R&I	<ul style="list-style-type: none"> • Programmes and incentives to boost business R&D and innovation in specific sectors or technological fields 	
6) Innovative entrepreneurship	<ul style="list-style-type: none"> • Equity financing and venture capital • Programmes targeting SMEs and young firms 	<ul style="list-style-type: none"> ✓ Support for setting up business angel networks and promoting early stage capital funds, seed funds, business angels, corporate ventures and crowd-funding ✓ Specific financing support for innovative businesses including HGIEs, SMEs, start-ups, spin-offs and spin-outs

D. NETWORKS, CLUSTERS AND TRANSFERS		
1) Innovation networks and clusters	<ul style="list-style-type: none"> • Clusters policy • Smart specialisation and regional policy • Mobility of human resources between sectors • Involving SMEs in collaborative networks 	<ul style="list-style-type: none"> ✓ Measures to support innovation clusters ✓ Implementation of smart specialisation strategies
2) IPRs	<ul style="list-style-type: none"> • Patent policies and IP systems • IP markets 	<ul style="list-style-type: none"> ✓ Measures to support IPR including awareness-raising