

RIS3

PEER REVIEW

REPORT

IRELAND



3-4 July 2014

National Peer Review Workshop
Dublin (Ireland)

Irish representatives presented their current work on Research and Innovation Strategy for Smart Specialisation in a national Peer Review Workshop organised by the S3 Platform and Irish authorities. The presentation and following peer discussions have provided the basis for this report.

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PART 1 | S3 PEER REVIEW APPROACH

[ABOUT THIS REPORT]

Peer Review Methodology. An important tool currently offered by the S3 Platform (European Commission) to the EU Member States and regions is its RIS3 peer review workshops. The peer review approach developed by the S3 Platform team concentrates review activities both in time and space by allowing a number of countries to be reviewed by peers from across Europe. These workshops bring together countries and regions for mutual learning and exploration of ways in which RIS3 strategies can be developed. The S3 peer review methodology allows creating an open and trusted learning environment where practical and conceptual aspects of RIS3 can be discussed and explored through challenges and experiences of individual countries.

Participatory approach. An S3 Platform team member facilitates each peer review session in line with the participatory leadership approach. Such a participative approach encourages all participants to share or participate in the decision-making. It allows engaging participants in a dynamic and creative discussion, which benefits both the countries under review and their peers.

Objectives and Expected Outcomes. Countries volunteer to be reviewed in an attempt to source both critical and well-timed advice addressing specific issue areas they are currently facing in the development of their RIS3 strategies. Countries also view the peer review workshop as a good opportunity to build their networks of counterparts across Europe. The RIS3 peer review workshops aim to fulfil two main objectives. The first objective is to allow countries meet their peers (as well as the European Commission staff and experts) and to discuss common issues related to Smart Specialisation. The second objective is to allow countries to peer-review each other's work on RIS3. Peer review sessions aim to achieve the following three outcomes: (1) *to provide* methodological and practical feedback to each country under review; to *closer examine* specific issues so as to understand what these really mean; and *to discuss* practical ways to address common problems (lessons to take home).

About S3 workshops. An average S3 peer review workshop runs over two full days, and includes peer review of three to five countries. Individual peer review sessions focus on one country and last around two hours. Peer review workshops are generally organised around individual peer review sessions focusing on three to five countries. A presentation of each country's current work on RIS3 is generally followed by a Q&A session, and a number of simultaneous discussions of specific issue areas highlighted during presentations. Specific issues are then discussed at individual tables in three iterations, which ensure that participants can: (1) *work together* to understand the actual problem behind each issue; (2) *propose solutions* to these problems by discussing what worked well (good practices) and what did not work; and (3) *learn together* how to deal with new policy issues in new contexts.

Structure. The S3 peer review process generally includes three phases: preparation, workshop discussions, and the post-workshop follow-up. Prior to their workshop, each country under review is asked to prepare two documents describing country's socio-economic and political background, as well as its research and innovation system. These documents outline pre-selected priorities and specific questions to guide and focus further discussions. Each reviewed country carries out a comprehensive self-assessment of its current work on RIS3. This assessment covers nine principal areas: stakeholder engagement, analytical

work behind RIS3, a shared vision, priorities, an action plan, a policy mix, the outward-looking dimension, synergies between policies and funding sources, and a convergence and monitoring system. This assessment exercise allows national authorities to examine their country's smart specialisation strategy from a perspective of an external expert.

Structured Feedback. Peer-review sessions are followed by a final session during which all participants (experts, representatives of the countries under review and peers) summarise the results of four peer-review sessions, and discuss individual and mutually learnt lessons. The countries under review are at this point are provided with the opportunity to respond to any feedback collected throughout the workshop. They then share with peers their new lessons, as well as any short- to mid-term plans to implement these lessons. During the workshop, the S3 Platform team members collect any relevant information and data covering different elements of each country's peer review exercise. To ensure countries under review receive adequate feedback from their peers, the S3 Platform employs a newly developed approach to the analysis of outcomes associated with individual peer review session. This data triangulation is based on dedicated evaluation forms, which are completed by three groups of participants: countries under review, their critical buddies, and experts. Based on the feedback from three groups of participants (see *Table 1*), the S3 Platform team further develops summary/feedback reports.

TABLE 1: FEEDBACK STRUCTURE

Elements	Description
Countries under Review	Following its peer review session (presentation and discussions), each country under review completes a short evaluation form to take the results of discussions in their session to a level up. Representatives of these countries are also asked to list three specific actions that could be undertaken in their country to further improve their RIS3. Countries under review are then additionally asked to indicate which specific steps they are likely to follow in order to implement any learnt lessons and related conclusions.
Critical Buddies	Prior to each peer review workshop, a number of countries are asked to act in the capacity of informal critical buddies. These are critical yet friendly peers who are asked to provide an in-depth evaluation of the RIS3 presented by one of the countries under review. This group of respondents attend a specific peer review session. They consequently fill in a comprehensive evaluation form, which additionally encourages them to share any suggestions as to how the country under review could improve its current work on RIS3. Finally, critical buddies are asked to list any good practices that should be further examined by the representatives of the reviewed country.
Experts	A number of experts attend each session and provide comments to countries under review using a dedicated evaluation form which they fill in based on the information provided before/during the workshop. Experts are also encouraged to offer suggestions to countries under peer review and to share any relevant good practices.

PART 2 | PEER REVIEW WORKSHOP

[ABOUT THE WORKSHOP]

The peer review approach developed by the S3 Platform team concentrates peer review activities both in time and space, by allowing a larger number of countries to be reviewed by peers with different experiences from across Europe. Approximately 100 participants from more over 12 European countries took part in the Dublin (Ireland) workshop in July 2014.

The RIS3 peer review workshops aim to achieve two important objectives. The first objective is to allow countries and regions meet their peers (as well as the European Commission staff and experts) to discuss common issues related to Smart Specialisation. The second objective is to allow them to peer-review each other's work on RIS3. The workshop in Dublin¹ was organised around four individual peer review sessions focusing on the following countries: Ireland, Romania, Poland, Bulgaria and Slovakia. Each peer review session aimed to address the following outcomes:

- To provide feedback from the peer review exercise to each country under review;
- To go deeper into these questions to understand what is meant in each case;
- To discuss ways to tackle common problems ('lessons to take home').

Country's Peer Review Objectives. Irish authorities opted to be peer-reviewed with an aim to source both critical and well-timed advice addressing the issue areas outlined below. The country also viewed the peer review workshop as a good opportunity to build its network of counterparts across Europe. Policymakers in Ireland are currently targeting the following elements in the development of their country's Research and Innovation Strategies for Smart Specialisation (RIS3):

- I. Ireland chose to undergo the S3 peer review exercise with a clear goal of sharing experiences with other countries and regions, learning from their success, hearing options to refine its national innovation strategy and benchmarking its approach against other countries.
- II. Irish policymakers were further concerned with learning of process(es) which would ensure that relevant stakeholders and actors are even more fully mobilised and engaged.
- III. More specifically, Ireland aimed to receive feedback from other countries and regions on the following additional items:
 - To discuss how to better support non-technological SMEs and traditional sectors;
 - To present and discuss how international collaboration can be further encouraged;
 - To capture new thoughts for the involvement of entrepreneurs, HEIs, users and civil society in RIS3 implementation;
 - To better understand demand side policies and public sector innovation;
 - To optimise policy learning during RIS3 implementation.

¹ <http://s3platform.jrc.ec.europa.eu/dublin-july-2014>

Three Phases of the RIS3 Peer Review Process

The RIS3 peer-review process progresses through three phases: (I) preparation, (II) workshop discussions, and (III) the post-workshop follow-up. For additional support throughout the whole peer-review process, Ireland was assigned a contact person from the S3 Platform (European Commission). Such an approach ensured that there was always a dedicated person, who could assist each country under review in preparing their presentations for the workshop, could offer guidance during the workshop and was also responsible for the preparation of a final feedback report.

PHASE ONE | Preparation. To ensure that the workshop participants are able to provide sufficient and adequate feedback to the Irish representatives, the country was asked to prepare three documents prior to the workshop in Dublin. The first two documents prepared by each country under peer-review (a PowerPoint presentation and a background document) were then shared among the workshop participants prior to the workshop.

Input One | PowerPoint Presentation. Irish representatives were asked to prepare a presentation based on a PowerPoint template provided by the S3 Platform team. The provided template followed recommendations defined in the [RIS3 Guide to Smart Specialisation](#). The template encouraged the presentation of the country's priorities and allowed choosing specific topics to focus discussions further during its workshop session. The so-called *self-assessment wheel* included in the template allowed the country to self-assess their own performance regarding each of the six steps.

In their PowerPoint presentation, each country under review was additionally asked to list a number of specific questions, which they would like to discuss during their peer review session in Dublin. Ireland further prepared an additional slide for each one of their questions (with some brief background information for each question. These additional slides were used during the presentation by the Irish representatives to address any specific questions from the audience and allowed them to explain their thinking behind the five posed questions. The RIS3 template was created by the S3 Platform team and allowed to focus better on the elements that illustrate how Irish authorities have approached each of the 6 steps discussed in the RIS3 Guide. This first (preparatory) phase became an important outcome of the peer-review process, as it required Irish representatives to consider, discuss, justify and document how the RIS3 strategies are developed and implemented in their country.

Input Two | Background Information. In addition to the above-mentioned PowerPoint presentation, Irish representatives were further asked to prepare a *concise background document* describing its innovation system. This document allowed critical friends (representatives of other countries) to familiarise themselves with the country's socio-economic and political background prior and during the workshop in Dublin.

Input Three | Full Self-Assessment Questionnaire. In preparation for the peer review workshop, Irish representatives have been asked to fill in (prior to the Dublin event) a comprehensive (self-assessment) questionnaire that addresses many areas of a national RIS3. During the week prior to the peer review workshop, policymakers from Ireland developed a good overview of where their country stands in the RIS3 process and to what extent they had considered different aspects of the entire RIS3 strategy. The form thus allowed these national and regional policymakers to look at their country's RIS3 from the perspective of an external expert. This pre-workshop questionnaire contains nearly 60 questions covering 9 major areas that are likely to be used to evaluate national RIS3 at a later stage. These nine areas are

stakeholder engagement, analytical work behind RIS3, shared vision, priorities, action plan, policy mix, the outward-looking dimension, synergies between policies and funding sources, and convergence and monitoring system. The actual results of this self-assessment form were not distributed among workshop participants, and were only used by the S3 Platform team to better structure any feedback to Ireland after the workshop.

PHASE TWO | Peer Review Discussions. The peer-review workshop was held over two full days (3-4 July 2014) in Dublin (Ireland). The workshop agenda was structured around a number of plenary sessions.

(Opening) Plenary Sessions. This workshop's sessions focused on a number of interrelated topics (further information is available from the following [webpage²](#)):

- External dimension of RIS3
- Global Value Chain Analysis

(Plenary/Parallel) Peer Review Sessions. The thematic sessions were followed by five plenary peer review sessions, which were attended by all workshop participants. During each peer review session (around 2.5 hours each), one of five countries under review discussed their RIS3 with peers from other European countries and regions. All peer-review sessions were facilitated by a member of the S3P team in line with the participatory leadership approach. This approach allows engaging workshop participants in a dynamic and creative discussion, which benefited both the reviewed countries and their peers. During its peer review session, a number of Irish representatives presented the country's current work on RIS3, and answered a number of clarifying questions from the audience. To ensure Ireland receives adequate feedback from their counterparts attending their session, the S3 Platform team applied a newly developed (based on the principle of data triangulation) approach to the analysis of the outcomes associated with individual peer review session. Dedicated reports have been filled in by three groups of participants: Irish representatives, their critical friends, and invited experts.

Output One | Lessons Learnt and Action Points. After its peer review session, Irish representatives were further asked to fill in an additional self-assessment form in order to take the results of discussions in their session to the next level. This short (2-page) questionnaire developed by the S3 Platform team encouraged the Irish representatives to think of lessons they learnt throughout their peer review session as well as of three specific actions that could be undertaken in their country to further improve their national RIS3. Irish representatives were also asked to indicate which specific steps they are likely to follow in order to implement any learnt lessons and related conclusions.

Output Two | Critical Buddy's Assessment Form. Several critical friends (national representatives from other countries) were asked to fill an additional questionnaire provided by the S3 Platform team. The CB questionnaire followed recommendations defined in the [RIS3 Guide to Smart Specialisation](#) and covered nine main RIS3 areas. In addition, this group of respondents were encouraged to share any possible suggestions as to how the country under review could improve its RIS3. Finally, these critical buddies were asked to suggest any relevant good practices that could be examined by the Irish representatives.

² <http://s3platform.jrc.ec.europa.eu/dublin-july-2014>

Output Three | Expert Assessment Form. A number of experts were invited to attend the Irish peer review session. These experts were asked to provide additional written comments using a feedback form which had to be filled in during/after the peer review session *based on the information provided by the Irish representatives* before/during the workshop (see *inputs 1 and 2*, page 3). Similarly to critical buddies, experts were also asked to indicate if there were any additional suggestions for the country under peer review, and to list any relevant good practices for that Irish authorities could later examine.

(Closing) Plenary Session. The parallel peer-review sessions were followed by a final closing session during which participants (experts, representatives of the three countries under review and their critical friends) summarised the results of peer-review sessions, and discussed individual and combined/shared learnt lessons. The Irish representatives were provided with the opportunity to respond to any feedback collected throughout the two-day workshop and their own peer review session. They were further invited to share what they have learnt and their short- and mid-term plans to implement these lessons.

PHASE THREE | Post-Workshop Follow-Up. During the workshop, the S3 Platform team collected all relevant information and data covering different elements of the Irish peer review exercise. Based on the results of their peer review session (see *inputs 1-3* and *outputs 1-3*), the S3 Platform team further developed the *present summary/feedback report*. This feedback report is then shared with the Irish authorities, and any peers from other countries who attended the workshop in Dublin.

PART 3 | ABOUT IRELAND

[IRELAND'S OWN PRESENTATION]

Country's Background and Information on the Work on RIS3. Part 3 of this document provides a summary of background information presented by Irish representatives and additional socio-economic information about the country.

National Economy. Ireland has been left with significant challenges following the economic crisis. The economy is estimated to have shrunk in GNP terms by almost 18% over the period 2007-2012 with significant adverse impacts on employment and incomes. Government debt has increased from 25% GDP in 2007 to 125% in 2013, fourth highest ratio of government debt to GDP in the EU.⁴ The banking system

is weighed down by heavy losses in the property market and the public finances have contracted sharply. The depth of the recession is perhaps best illustrated by the rapid increase in the unemployment rate – up from 4.5% in Q1 2007 to 13.6% in Q2 2013 with total unemployment having almost tripled since 2007.⁵



FIGURE 1: MAP OF IRELAND (SOURCE: WIKIMEDIA³)

Ireland was subject to a macroeconomic adjustment programme until December 2013. Structural reforms and fiscal consolidation have helped to rebalance the economy, underpinning a return to the sovereign bond market and gradual return to growth. The return to growth has been driven by exports underpinned by a solid base of multinational firms, particularly in high-tech industries. Competitiveness, as measured by unit labour costs, has improved markedly although this partly reflects sectoral composition effects due to labour shedding in low-skilled sectors, such as construction,

and the strong performance of the high value-added chemicals sector. In a context of declining world trade market shares in most OECD countries, Ireland has shown a resilient export performance despite slow demand in partner countries of the euro area.

Domestic economic conditions are improving, but at a modest pace. Private consumption has stabilised, following a moderate pick-up in household disposable income, but stronger consumer purchases are hindered by efforts made to reduce indebtedness. After five years of contraction business investment is at a very low level. It has recently started growing again, but acceleration is held back by the high debt of

³ http://commons.wikimedia.org/wiki/Atlas_of_Ireland

⁴ [General Government Consolidated Debt as a percentage of GDP \(Eurostat\)](#)

⁵ [Unemployment rose from 4.5 per cent in Q4 2007 to 12.8 per cent in Q4 2013 \(CSO\)](#)

non-financial corporations. The SME sector, which accounts for more than 70% of private employment, is constrained by high property-related debt, and has faced several years of weak profitability. Banks have undertaken significant balance adjustments, but are still making losses.

The government is committed to continuing the process of economic reform and recovery. In its Medium Term Economic Strategy 2014-2020 (MTES), it has set out how it will continue the work of rebuilding the Irish economy, achieving sustainable economic growth, strong public finances, and enduring job creation. *“After exiting the EU IMF Programme, the government is focused on maintaining the reform momentum to achieve the goals of creating more jobs to enhance living standards and ultimately to achieve full employment. This will, in turn, create resources for the delivery of a sustainable, adequate and reformed system of social supports and services for those who have completed their working years or who have caring responsibilities or a long-term disability”*.⁶

The main objectives of the budgetary strategy outlined in the 2014 Stability Programme are to correct the excessive deficit by 2015 and reach the medium-term objective by 2018. The programme targets a deficit below 3% of GDP by 2015, in line with the Excessive Deficit Procedure recommendation. The government has adopted and published annual Action Plans for Jobs, beginning in 2012. The 2014 Action Plan sets out how the government will continue to work to build and sustain a competitive economy that can pay its own way, serve society, and that can survive and thrive in a reformed Euro zone and an increasingly globalised international economy.

The Action Plan for Jobs 2014 places a strong focus on the key areas of SME support, enhanced competitiveness, and the local delivery of assistance to entrepreneurs and smaller firms via the new Local Enterprise Offices. The Action Plan for Jobs also has a focus on specific sectors in the economy, such as agriculture and food, tourism, aviation services, the green economy, retail and construction and property. A

European Economic Forecast Spring 2014				
Forecasts for Ireland	2012	2013	2014	2015
GDP growth (% , yoy)	0,2	-0,3	1,7	3,0
Inflation (% , yoy)	1,9	0,5	0,6	1,1
Unemployment (%)	14,7	13,1	11,4	10,2
Public budget balance (% of GDP)	-8,2	-7,2	-4,8	-4,2
Gross public debt (% of GDP)	117,4	123,7	121,0	120,4
Current account balance (% of GDP)	4,4	6,6	7,4	8,9

TABLE 2: FORECASTS FOR IRELAND (SOURCE: EC WEBSITE⁷)

strong commitment to oversight and implementation is key to ensuring the effectiveness of the Plan. Implementation is overseen by a Monitoring Committee, chaired by the Secretaries General of the Departments of the Taoiseach (Prime Minister) and of Jobs, Enterprise and Innovation which reports to the Cabinet Committee on Economic Recovery and Jobs. Quarterly reports - measuring delivery against targets - are considered by the government and published.

Effectively, Ireland is on its way back to economic growth and reducing unemployment (most of the macroeconomic analysis in this section is based on the original [summary](#)⁸).

⁶ [Medium Term Economic Strategy](#)

⁷ The latest EC review for Ireland is available at http://ec.europa.eu/economy_finance/eu/countries/ireland_en.htm

⁸ http://ec.europa.eu/economy_finance/publications/occasional_paper/2014/op195_en.htm

TABLE 3: MAIN FEATURES OF THE COUNTRY FORECAST (SOURCE: EC WEBSITE⁹)

	2012		94-09	Annual percentage change						
	bn EUR	Curr. prices		% GDP	2010	2011	2012	2013	2014	2015
GDP	163.9	100.0	5.7	-1.1	2.2	0.2	0.3	1.8	2.9	
Private Consumption	78.3	47.8	4.9	0.4	-1.4	-0.3	-0.6	0.8	1.0	
Public Consumption	29.4	18.0	4.6	-4.9	-2.9	-3.2	-1.0	-2.8	-0.4	
Gross fixed capital formation	17.5	10.7	5.4	-22.7	-9.1	-0.6	3.8	10.5	5.4	
of which: equipment	6.8	4.2	6.5	-11.2	-1.5	2.3	9.2	12.0	6.5	
Exports (goods and services)	176.7	107.8	9.7	6.4	5.4	1.6	0.3	2.8	3.7	
Imports (goods and services)	137.0	83.6	9.0	3.6	-0.4	0.0	0.1	2.8	2.6	
GNI (GDP deflator)	133.9	81.7	5.1	-0.2	-1.4	0.8	2.7	1.0	2.1	
Contribution to GDP growth:	Domestic demand		4.3	-2.8	-3.5	-1.5	-0.1	1.1	1.1	
	Inventories		0.1	-1.1	2.1	0.3	0.2	0.0	0.0	
	Net exports		1.7	3.1	5.7	1.6	0.2	0.7	1.8	
Employment			3.1	-4.1	-1.8	-0.6	2.2	1.5	1.4	
Unemployment rate (a)			7.2	13.9	14.7	14.7	13.1	11.9	11.2	
Compensation of employees / head			4.7	-3.8	-0.1	0.8	-0.3	-0.6	0.6	
Unit labour costs whole economy			2.1	-6.7	-4.0	0.0	1.6	-0.8	-0.8	
Real unit labour cost			-0.4	-5.3	-4.6	-0.6	1.0	-1.5	-1.9	
Saving rate of households (b)			-	13.2	11.2	10.2	12.7	11.3	12.0	
GDP deflator			2.6	-1.5	0.7	0.7	0.6	0.7	1.1	
Harmonised index of consumer prices			-	-1.6	1.2	1.9	0.5	0.8	1.1	
Terms of trade goods			0.1	-3.6	-6.2	-0.7	0.2	0.2	-0.1	
Trade balance (c)			19.9	22.6	22.6	22.2	20.4	18.9	18.5	
Current-account balance (c)			-0.5	1.1	1.2	4.4	7.0	6.8	7.2	
Net lending (+) or borrowing (-) vis-a-vis ROW (c)			-0.1	0.7	1.1	3.2	6.8	7.2	6.9	
General government balance (c)			-0.5	-30.6	-13.1	-8.2	-7.2	-4.8	-4.3	
Cyclically-adjusted budget balance (c)			-0.8	-28.2	-12.2	-7.7	-6.6	-4.7	-4.7	
Structural budget balance (c)			-	-8.9	-8.1	-7.7	-6.4	-4.9	-4.6	
General government gross debt (c)			47.0	91.2	104.1	117.4	122.3	120.3	119.7	

(a) Eurostat definition. (b) gross saving divided by gross disposable income. (c) as a percentage of GDP.

Ireland within the EU in figures¹⁰

A young population of 4.6 million inhabitants

	Total population on 1 January 2012 (millions)	Life expectancy at birth (in years), 2011		Share of population aged less than 15 on 1 January 2012	Share of population aged over 65 on 1 January 2012	Population density, 2011, persons per km ²
		Men	Women			
Ireland	4.6	78.7	83.2	32.5	17.9	67.1
EU27	502.4	77.4e	83.2e	15.6	17.8	116.8e

Data are provisional, e = estimate

Higher fertility rate than in the EU

	Fertility rate (live births per woman), 2011	Infant mortality (per 1000 live births), 2011	Marriage rate (marriages per 1000 inhabitants), 2011	Divorce rate (divorces per 1000 inhabitants), 2011	Live births outside marriage (% of total live births), 2011
Ireland	2.03	3.5	4.3	0.6	35.1
EU27	1.57 ^p	3.9	4.6	1.9*	39.5

p = provisional, * 2009 data instead of 2011

⁹ http://ec.europa.eu/economy_finance/eu/forecasts/2014_winter/ie_en.pdf

¹⁰ For more information: <http://epp.eurostat.ec.europa.eu/guip/introAction.do?profile=cpro&theme=eurind&lang=en>

GDP per capita at 126% of the EU average

	GDP, 2013			Inflation**, annual rate, % May 2013 / May 2012	Unemployment rate*** May 2014, %		
	bn euro	per capita* EU27=100	Annual growth rate, in volume, %		Total	Women	Under 25s
Ireland	164	126	-0.3	0.5	12	10	23.7
EU27	13,026	100	0.1	1.5	10.3	10.4	22.2

* Data are expressed in terms of Purchasing Power Standards (PPS), a unit that is independent of any national currency and which removes the distortions due to price differences. The PPS values are derived by using Purchasing Power Parities (PPPs), obtained as a weighted average of relative price ratios in respect of a homogeneous basket of goods and services, comparable and representative for each country.

** Inflation measured using the Harmonised Indices of Consumer Prices (HICP).

*** Unemployment rates refer to EU28 and represent the number of people unemployed (aged 15 to 74) as a percentage of the labour force. The labour force is the total number of people employed and unemployed. Seasonally adjusted data.

Market services account for 43% of total employment

	Employment by sector, 2012, % of total employment				Employment rate* 2013, %			Usual hours worked per week for full-time employees, 2013	Part time employed (as % of total employed), 2013
	Agriculture	Industry (incl. construction)	Market services	Non- market services	Total	Women	Men		
Ireland	4.7	18.3	45.1	31.9	65.5	60.3	70.9	40.1	19.4
EU27	5.0	24.9	39.6	30.5	68.5	62.7	74.4	41.5	19.9

* The employment rate represents employed persons as a percentage of the same age population (15-64 years).

Around 57% of Irish exports are within the EU

	Share of exports to EU in % of total exports, 2013	Extra EU28 trade in bn euro, May 2014		
		Exports	Imports	Balance
Ireland	56.8	3.7	1.3	2.4
EU28	61.8	140.3	140.1	0.2

Two thirds of households have broadband access & more than half the mid-aged population have completed higher education

	Percentage of persons (30-34 years) with completed higher education (university or equivalent), 2013			Total R&D expenditure as % of GDP, 2012	Percentage of households who have broadband access at home, 2013
	Total	Women	Men		
Ireland	52.6	58.7	45.9	1.72	67
EU28	36.9	41.2	32.7	2.07	76

PART 4 | CURRENT WORK ON RIS3

Part 4 of this document provides a brief summary of the information on the work on RIS3 in progress in Ireland as presented during the peer review session in Dublin.

*Conditions for Research and Innovation.*¹¹ The importance of investment in science, technology and innovation to Ireland's on-going and future economic and social development is reflected in the considerable allocations for investment in science, technology and innovation by the government in the current and previous National Development Plans, and via the Strategy for Science, Technology and Innovation 2006-2013¹², and Programme for Government. Government budget appropriations and outlays on R&D&I have increased considerably over the past decade, increasing from €504m in 2002 to €801m in 2011, peaking at €948m in 2008. As a result Ireland has successfully built up research capacity and a reputation for research excellence and has an increasing base of enterprises engaging in R&D&I activity with R&D&I active enterprises demonstrating better resilience in the current difficult economic climate.

Prior to a government policy decision to make a significant investment in science, technology and innovation, research funding in Ireland was at very low levels. However, from 2000, an ambitious policy strategy was adopted - investing in people, infrastructure and associated facilities to build the science base across many areas of scientific research in both the higher education institutions and other public research organisations; and direct support to the enterprise sector to help individual companies to build their capacity for research and development.

This approach to the investment followed the recommendations of the Technology Foresight exercise¹³ conducted by the Irish Council for Science, Technology and Innovation (ICSTI) in 1998. The ICSTI report identified the need to build world class research capability of sufficient scale in a number of strategic areas. The government responded to these proposals by establishing an initial Technology Foresight Fund of over €630 million for the seven year period of the National Development Plan 2000-2006. It accepted that such a research fund was necessary to:

- Develop world-class research capabilities in strategic technologies to underpin the future development and competitiveness of Irish owned industry,
- Facilitate the undertaking of R&D in this country by multinational companies in order to support the further development of that sector in Ireland,
- Attract more high technology companies to Ireland in the future, and
- To enhance the environment for the creation of new technology-based firms.

Science Foundation Ireland was established to administer this fund and build research capability in the areas identified by the Foresight exercise. In addition, the government sought to build research capacity in

¹¹ Most of the information in this section has been provided by Irish representatives during their peer review session in Dublin

¹² <http://www.djei.ie/publications/science/2006/sciencestrategy.pdf>

¹³ http://www.forfas.ie/media/icsti990430_technology_foresight_overview.pdf

the third level sector through the Programme for Research in Third Level Institutions (PRTL).¹⁴ A key element of this initiative was the requirement that institutions prioritise and collaborate across the sector.

PRTL provided integrated financial support for advancing national and institutional strategies, through the support of initiatives and infrastructure in key areas of research which address economic and societal needs. Launched originally in 1998, the Programme for Research in Third-Level Institutions (PRTL) has awarded exchequer and private funds totalling €1.21 billion (exchequer €935.4m, private €277.5m). These investments have been made to strengthen national research capabilities via investment in human and physical infrastructure. Cycles 1 to 4 have been completed, Cycle 4 in 2012 and the Cycle 5 investment was initiated in December 2010. The aim of the programme is to position Ireland as an internationally recognised location with the infrastructure and skills required for world class research and development.

The Strategy for Science Technology and Innovation 2006-2013 (SSTI) set in motion a strong positive trajectory for the STI investment and associated policies. The SSTI sought to further build on progress in the research base from 2000 and increase innovation in the enterprise sector to accelerate Ireland's economic path of sustainable growth. The government made a major commitment, through substantial public investment, in the SSTI with the result that Ireland has made significant steps in establishing a strong research environment, based on building scientific excellence in a number of key strategic areas. In the last decade Ireland has trebled the level of investment in research and development, providing enterprise support for R&D, investing in human capital, physical infrastructure and the commercialisation of research. This investment has contributed significantly to an increase in Foreign Direct Investment (FDI), the competitiveness of indigenous enterprise and to the creation and application of new knowledge and technologies.

In summary the achievements secured from the investment since 2000 place Ireland in a strong position to realise the vision associated with the SSTI of a country renowned for the excellence of its science and an ability to convert knowledge into innovation.

Higher Education System. The Department of Education and Skills is responsible for, inter alia, core funding and overarching policy development, including research policy, for the higher education sector. The Higher Education Authority (HEA) and the Irish Research Council (IRC) come under the aegis of the Department of Education and Skills. The Higher Education Authority is the statutory funding authority for the universities, institutes of technology and a number of other designated institutions and is the advisory body to the Minister for Education and Skills in relation to the higher education sector. The IRC focuses on the cultivation of skills and research expertise to address broad societal needs and thus it funds across all disciplines and focuses on early stage career researchers.

The National Strategy for Higher Education to 2030, adopted in 2012, establishes a new performance framework for public Irish Higher Education Institutions within which publicly-funded higher education institutions are being held accountable to government for their performance against defined national priorities. This is monitored and advanced by way of the Strategic Dialogue process now in place between the HEA and the higher education institutions. This is the central means through which the institutions will develop their future performance in accordance with national economic and societal objectives. The imperative to maximise Ireland's return on investment in research is explicitly emphasised in the Higher Education System Performance Framework 2014-16 under System Level Objective 4: "To maintain an

¹⁴ <http://www.heai.ie/en/funding/research-funding/programme-for-research-in-third-level-institutions>

open and excellent public research system focused on the government's priority areas and the achievement of other societal objectives and to maximise research collaborations and knowledge exchange between and among public and private sector research actors”.

Business sector – R&D&I overview. The overall objective of Enterprise Policy as set out by the Department of Jobs, Enterprise and Innovation (DJEI) and Forfás over many years - 15 - is to grow incomes and standards of living in Ireland through competitive and sustainable enterprise, innovation, productivity and employment growth.

- Ireland's enterprise policy is focused on the core planks of productivity and innovation, delivering on an agenda of enterprise transformation – to create a competitive and sustainable platform for growth and job creation.
- Ireland's enterprise policy embraces start-ups, Irish owned firms (both nationally and internationally trading) and foreign direct investment, including greenfield and expansions. There is a strong focus on intensifying promotion of entrepreneurship and the scaling of Irish owned firms, further developing Ireland's proposition for FDI in the face of intensified global competition and facilitating collaborative interactions by firms across the supply chain and throughout the country.
- Ireland's enterprise policy continues to focus on an export-led growth strategy as the most sustainable route to deliver jobs and growth that includes ensuring that policies are in place to support an efficient and cost competitive market for locally trading activities.
- Enterprise policy is focusing on realising the economic benefits of its investments to date in R&D infrastructures, by strengthening the IP framework, by brokering partnerships between firms and research institutes, and by reducing barriers for SMEs to engage in R&D&I. Irish policies encompass a broad interpretation of innovation and Ireland has measures in place to facilitate early adoption of technologies by firms of all sizes, and to utilise public procurement in a more strategic way to stimulate innovation that involves collaborative engagements between foreign and Irish owned firms.
- Ireland's enterprise policy aims to derive increased economic benefits by building sector-specific eco-systems, stimulating increased inter-firm linkages between Irish firms and the multinational base of companies, and facilitating interactions across sectoral 'boundaries'.

These objectives are aligned and synchronised with the EU 2020 Strategy objectives and approach to improving European competitiveness overall. The aims include speeding up the adjustment of industry to structural changes, encouraging an environment for initiative and cooperation between enterprises (particularly SMEs) and fostering better exploitation of innovation. Unlike in many other EU member states, foreign multinational companies are a very important element of the enterprise base. Unlike some of the Irish SMEs, they are very much export-oriented.

Rationale for Prioritisation in R&D&I. Having come from a low base, Ireland made very significant progress over the past decade in building a research system that in some instances is amongst the best in Europe; in retaining and attracting top level researchers; and in achieving closer synchronisation between research endeavour in higher education institutions (HEIs), government agencies, and industry. Ireland is now in the top 20 countries ranked by citations (per thousand people) and Ireland's growth in citations is among the

¹⁵ [Making It Happen – Growing Enterprise for Ireland, Forfás/DJEI, 2010](#)

highest of those countries. Particular strengths are emerging in fields including Molecular Genetics, Probiotics, Immunology, Nanotechnology and Materials.

However, as with any STI system, challenges remain to align publicly funded research more closely with industry and societal needs and optimise efficiency to achieve maximum return on investment. With increasing pressures on exchequer resources, it was further recognised that a country of Ireland's size is not in a position to develop critical mass in each and every field of science and the need to focus efforts in a small number of areas with the potential to deliver economic and societal return is increasingly recognised by government.

S3 Context and Approach. In October 2010, the government established the Research Prioritisation Steering Group (RPSG), tasked with identifying a number of areas around which future public investment in STI should be focussed over the period to 2017. The group carried out the bulk of its work in 2011. The high level objectives of the prioritisation exercise were outlined in the RPSG's Terms of Reference:

1. In response to market and societal demand trends, develop a national consensus on a number of priority areas or approaches to challenges/opportunities which need to be underpinned by future investment in publicly-funded STI;
2. Identify and articulate, as far as possible, a non-exclusive list of supporting fields of science and technology (including research in the humanities and social sciences) that will underpin the priority areas/challenges in both the medium term and beyond;
3. Develop a detailed action plan (or "route to market" in the case of commercial applications) for each of the priority areas/challenges put forward that sets out specific goals to be realised in the medium term and beyond and the measures required in the public and private sectors to realise these goals.

The focus of these criteria was to ensure alignment with the overall national policy focus on the transformation of the economy to a more sustainable basis for economic growth for the future, for example as set out in *Making It Happen*. The guidance of the Steering Group including the following parameters:

- The exercise should take account of fields of research activity where Ireland has built significant strength and capacity and particularly areas that have the greatest potential to deliver economic return through enterprise development, employment growth and job retention in Ireland;
- The process was expected to identify 10-20 priority areas/challenges – the final number depending on the level of specificity attaching to a priority/challenge and, therefore, there was no pre-determined set number;
- Following agreement on the final list of priority areas/challenges, it was envisaged that the majority of the government's core STI budget would be focused on the priority areas but scope would remain to fund other basic, policy-focused and evidence based research;
- The selected priority areas would be reviewed on a regular basis to ensure their continued relevance and to ensure that new opportunities are identified.

Priority Setting Process. Having completed the analysis of the national context and the potential for innovation and initial deliberations, as discussed above, the RPSG established four Thematic Working Groups (TWGs) with deep knowledge of thematic areas under consideration. Each group was chaired by a

member of the Steering Group and other members of the Steering Group were invited to participate. The rest of the membership comprised representatives from each of the relevant funding organisations active in the thematic area and representatives from the university sector, the institutes of technology sector and the enterprise sector. Technical experts were appointed to the groups to facilitate their work.

Potential priority areas were established based on a top down process drawing on priorities identified at EU level and internationally including horizon scanning exercises, and on a bottom up basis from national funding agencies and other stakeholders. An indicative ‘long list’ of potential priority areas based on a wide ranging exercise conducted by Forfás, which drew on international priorities, priorities from European programmes, national areas of focus and background studies described earlier. Each of the funding organisations was asked to augment these lists with potential priority areas within the thematic domain based on their knowledge of existing and emerging research strengths and the potential fit with the other criteria.

The TWG examined the areas proposed for overlap, duplication and the opportunity to group and consolidate them and agreed an initial list of areas for which detailed assessments would be undertaken. The Steering Group defined four high-level criteria and sub-questions under these criteria that were used to assess potential “priority areas”: associated with a large global market, public R&D is required to exploit the area, existing objective research strengths & addresses global or national challenges.

14 Priority Areas underpinned by 6 platform science and technology areas were identified and recommended to government as areas that would become the focus of future research investment that is oriented towards the Irish enterprise base (see Table 3). Detailed descriptions of the priority areas and opportunities identified are provided in the Steering Group’s Report.

A	Future Networks & Communications	H	Food for Health
B	Data Analytics, Management, Security & Privacy	I	Sustainable Food Production & Processing
C	Digital Platforms, Content & Applications	J	Marine Renewable Energy
D	Connected Health & Independent Living	K	Smart Grids & Smart Cities
E	Medical Devices	L	Manufacturing Competitiveness
F	Diagnostics	M	Processing Technologies & Novel Materials
G	Therapeutics – Synthesis, Formulation, Processing & Drug Delivery	N	Innovation in Services & Business Processes

TABLE 3: SELECTED PRIORITIES

Figure 4 below positions the 14 areas and the platform science and technology areas in a wider context. This figure represents the total funding within the scope of this exercise (i.e. total government investment in research less the research component of the “block grant” to HEIs and the funding administered by the enterprise development agencies for in-company performed R&D).

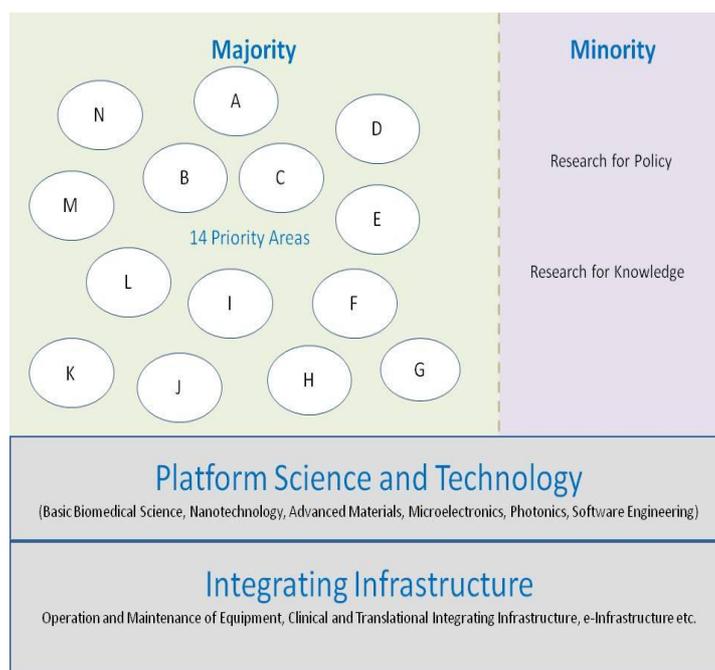


FIGURE 4: PRIORITY AREAS AND THE WIDER STI SYSTEM

The work of the Steering Group culminated in Ireland's RIS3, which is the National Research Prioritisation Exercise (NRPE) and its implementation through the Prioritisation Action Group (PAG) in the context of the wider enterprise policy mix .

5.3 Delivery Mechanisms. Government should set a new overriding national objective to accelerate the delivery of specific economic outcomes from investment in research. In the context of the government decision in February 2012 to implement the recommendations contained in the Report of the Research Prioritisation Steering Group, it was explicit that implementation of research prioritisation would be the government's priority STI policy goal. Along with a range of other policy initiatives approved by government and in the process of being rolled out, implementation of research prioritisation is de facto a manifestation of the overarching goal of accelerating the economic and societal return on STI investment. There will be an opportunity to consolidate that overarching goal further in the context of a new Strategy for Science, Technology and Innovation (SSTI) statement, work on which has commenced, as it is clear that research prioritisation itself will form the main pillar of any new strategy statement.

RIS3 Governance Structure and Stakeholder Engagement.¹⁶ Primary responsibility for the implementation of Research Prioritisation lies with the research-funding agencies and departments (see Figure 2 for an overview). However, the government, in 2012 established a Prioritisation Action Group (PAG), chaired by the Minister for Research and Innovation, to oversee and drive implementation of the National Research Prioritisation Exercise. The PAG brings together senior officials from all bodies providing public funds to support the performance of Research: ten state agencies and nine government departments.

In its first year of operation, the PAG established nine thematic Working Groups (ICT, Food, Health etc.) to develop action plans in the 14 priority areas. The Working Groups provided a formalised and structured framework for collaboration and cooperation between the government departments, agencies and

¹⁶ Ireland's presentation, Dublin, July 2014

stakeholders to ensure a coordinated approach to developing the action plans and drive greater coherence across the system at the level of priority areas.

The PAG, through its on-going work, provides a forum for coordination and alignment of the activities of the funding agencies and is driving new behaviours across the STI ecosystem. These new behaviours are resulting in research funding being tackled in a holistic way by all departments and funding agencies working together around the priority area action plans – see below. Examples of increased joined up approach to funding include:

- Alignment and coordination of funding programmes and calls across enterprise agencies.
- A requirement for all funding agencies to adopt a stage-gate approach based on excellence and impact when assessing funding proposals.
- Greater emphasis on fostering inter-disciplinary research, both within the natural sciences and also with social sciences and business disciplines in the context of Innovation in Services and Business Processes.
- Deeper engagement between enterprise agencies and the national health system to maximise synergies between the biomedical enterprise base and research in the public health sector.
- Funding agencies undertaking a cross-agency review of branding and marketing of the research offering in thematic areas.
- Active communication and cooperation between the enterprise development agencies and clinicians and medical regulatory bodies to ensure mutual understanding of regulatory challenges facing next generation medical products.
- Promotion of partnerships between MNCs and indigenous firms involved in research centres.
- Joined up approach to promotion of strategic international engagement and collaboration by the Irish research community.
- Emphasis on realising impact from state-funded research in line with the recently published National Intellectual Property Policy.
- Strategic sectoral innovation strategies aligned with action plans; and actions part of the Action Plan for Jobs providing a joined up National Innovation agenda.

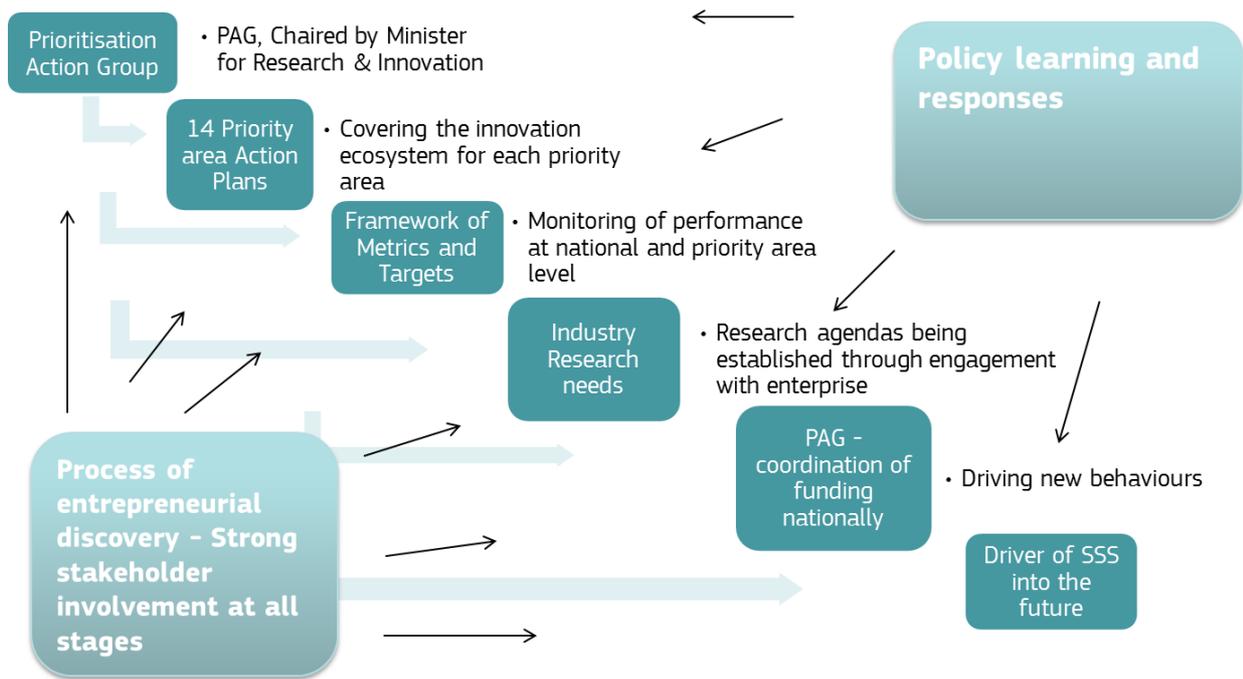


FIGURE 2: RIS3 GOVERNANCE

RIS3 Progress to Date. In its self-assessment (see Figure 3 below), Ireland indicated that it has significantly progressed in most RIS3 areas: analysing regional and national assets (step 1), putting in place a comprehensive governance structure (step 2) and identifying critical mass for prioritisation (step 4).

However, some additional work would be needed for: broadening the view of innovation (step 3) and establishing a follow-up mechanism to update the RIS3.

Specific areas of importance that have been identified by the Irish policymakers in charge of RIS3 in their self-assessment include: raising awareness of the innovation opportunities for less technologically intensive SMEs, encourage greater engagement among stakeholders for implementing and further developing the strategy, and better connect with clusters/firms internationally.

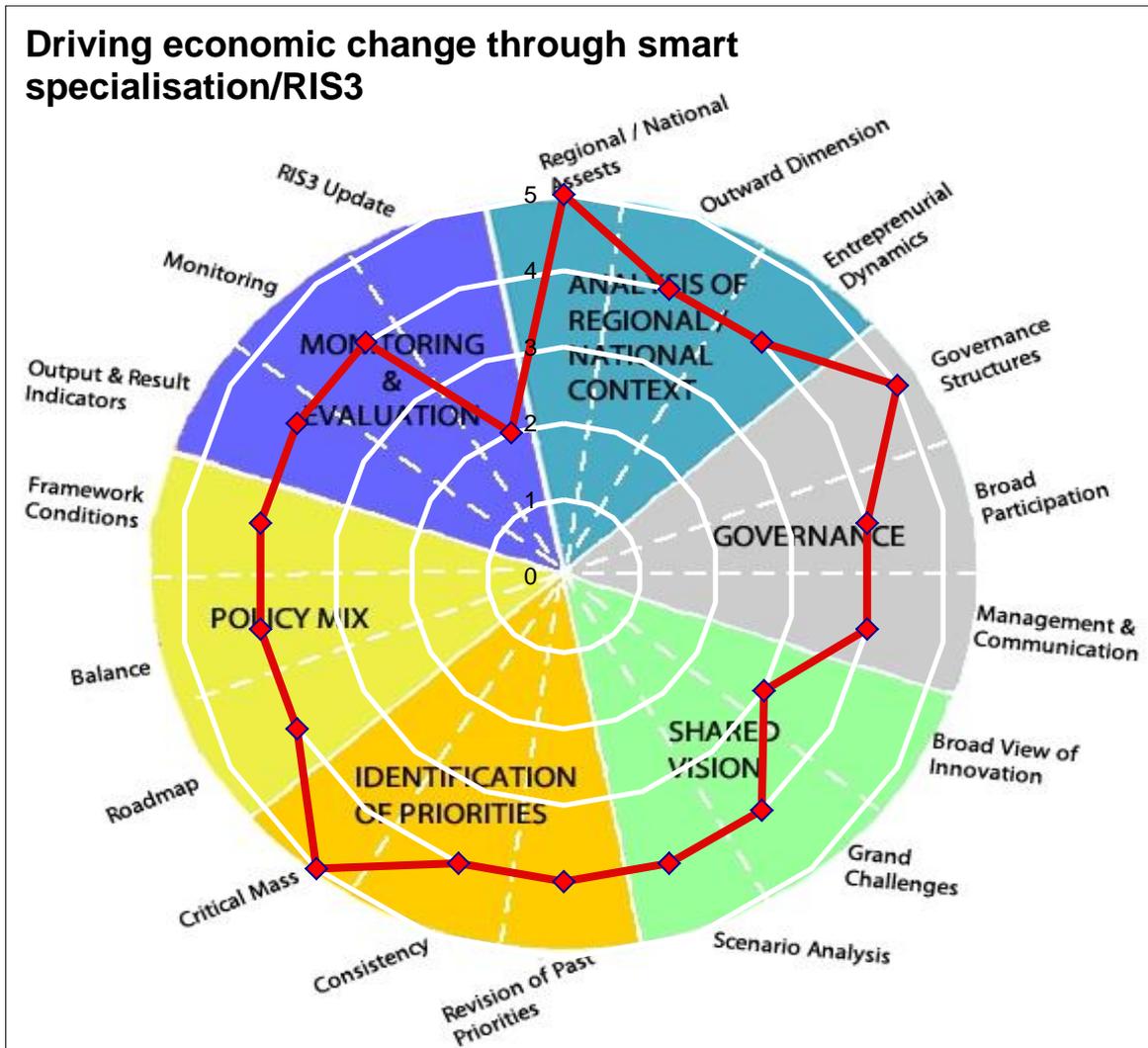


FIGURE 3: IRELAND'S SELF-ASSESSMENT WHEEL (JULY 2014)

Irish representatives have reported that they are following up on a number of steps over the next months to ensure conditions for successful implementation of S3 are in place. Implementation of the 14 Action Plans, systemic recommendations and framework of metrics by stakeholders, with oversight and monitoring by the PAG, is the mechanism for assessment of progress, review and revision and is ongoing.

As a result of NRPE, the majority of competitively allocated STI funding is being increasingly aligned to priority areas and underpinning platform and enabling technologies. Opportunities at interfaces of disciplines are being increasingly recognised and are reflected in introduction of joint calls, e.g. the programme on “Smart Agriculture” is the first joint call by Teagasc and SFI.

PART 5 | QUESTIONS UNDER REVIEW

QUESTIONS/ISSUES POSED BY IRELAND FOR PEER DISCUSSION

QUESTION 1 Should non-technological SMEs or enterprises in traditional sectors be further supported through the RIS3?

QUESTION 2 How can cross-border/international collaboration by Irish academic and enterprise clusters be further encouraged while avoiding duplication with other countries/regions and without abandoning support for smart specialisation areas?

QUESTION 3 How can the involvement of entrepreneurs, higher education institutions, users and civil society be further engaged in the ongoing implementation of the smart specialisation strategy?

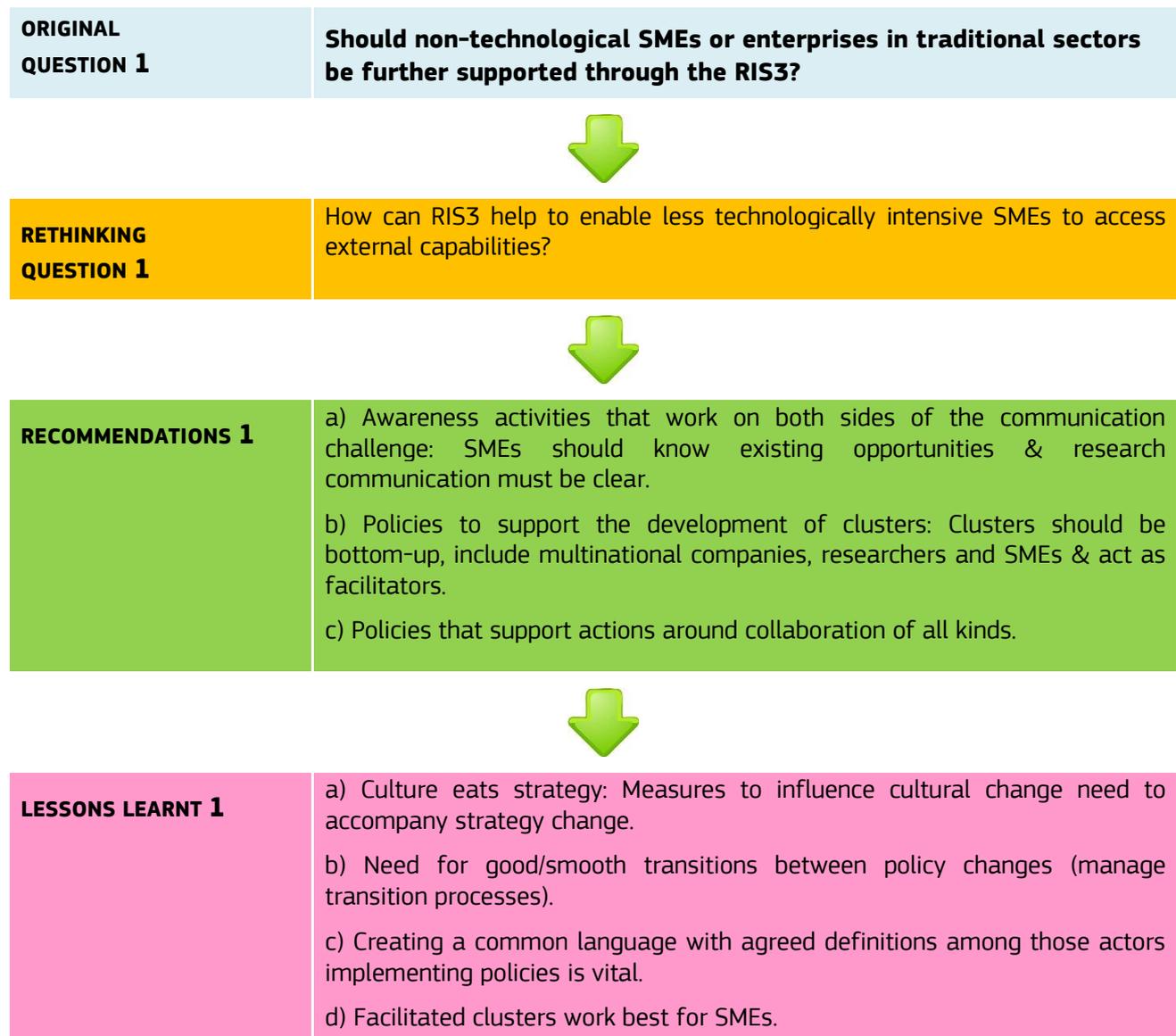
QUESTION 4 How can demand-side policies such as public procurement and public sector innovation support the smart specialisation areas?

QUESTION 5 How can policy learning be incorporated into the RIS3 implementation?

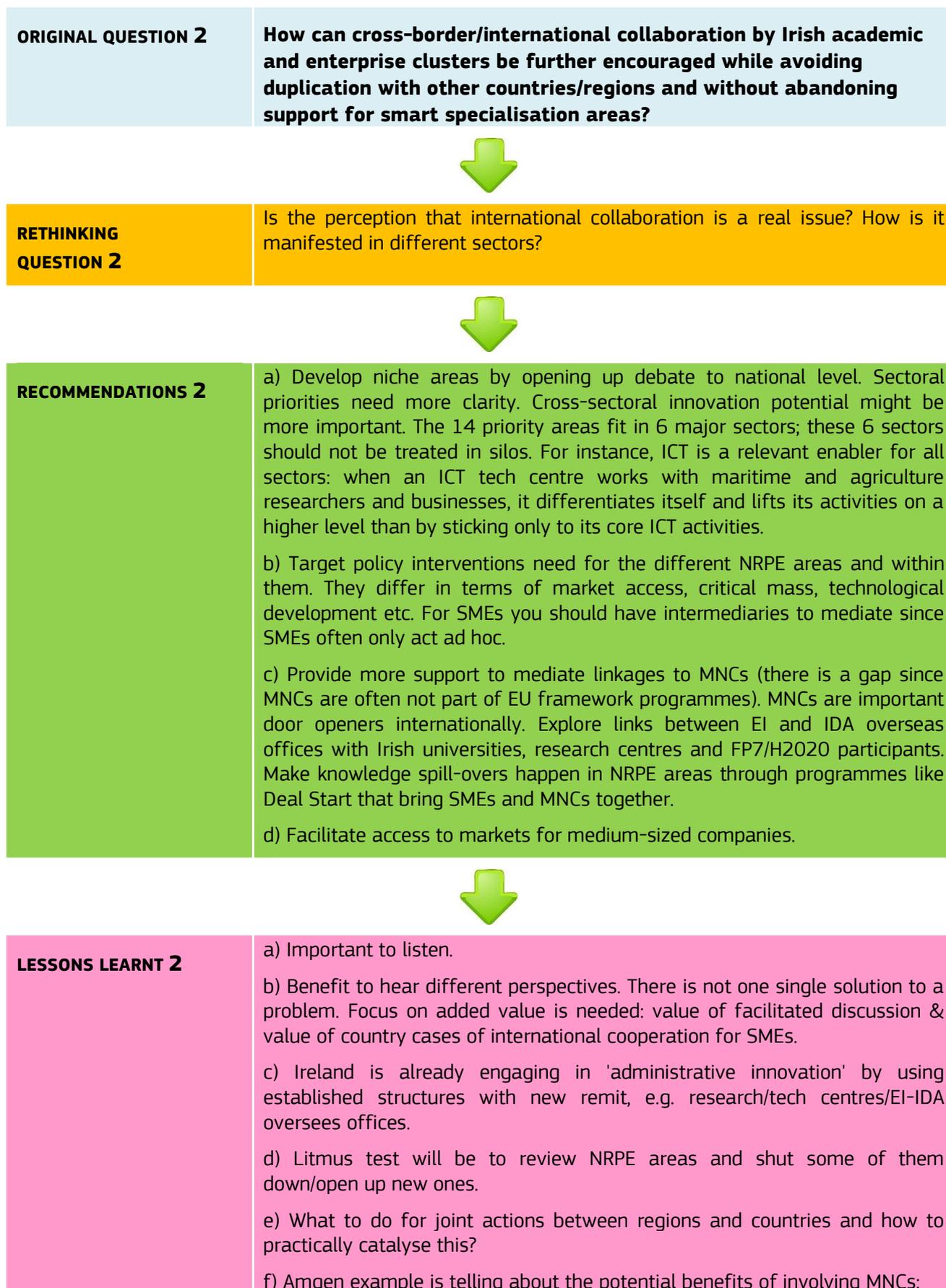
During peer discussions, participants self-organised into a number of groups/tables, all of which had representatives from various EU Member States and regions. Each table was offered to choose one of the questions prepared by the Irish representatives. A total of 5 questions have been selected and discussed.

A summary of these discussions is presented below.

Evolution of Question 1



EVOLUTION OF QUESTION 2



Together with Amgen, the Irish government funded the expansion of a large scale production facility for biotechnology and the pharmaceutical in 2012. This kind of initiatives can bring Europe into the lead in global markets.

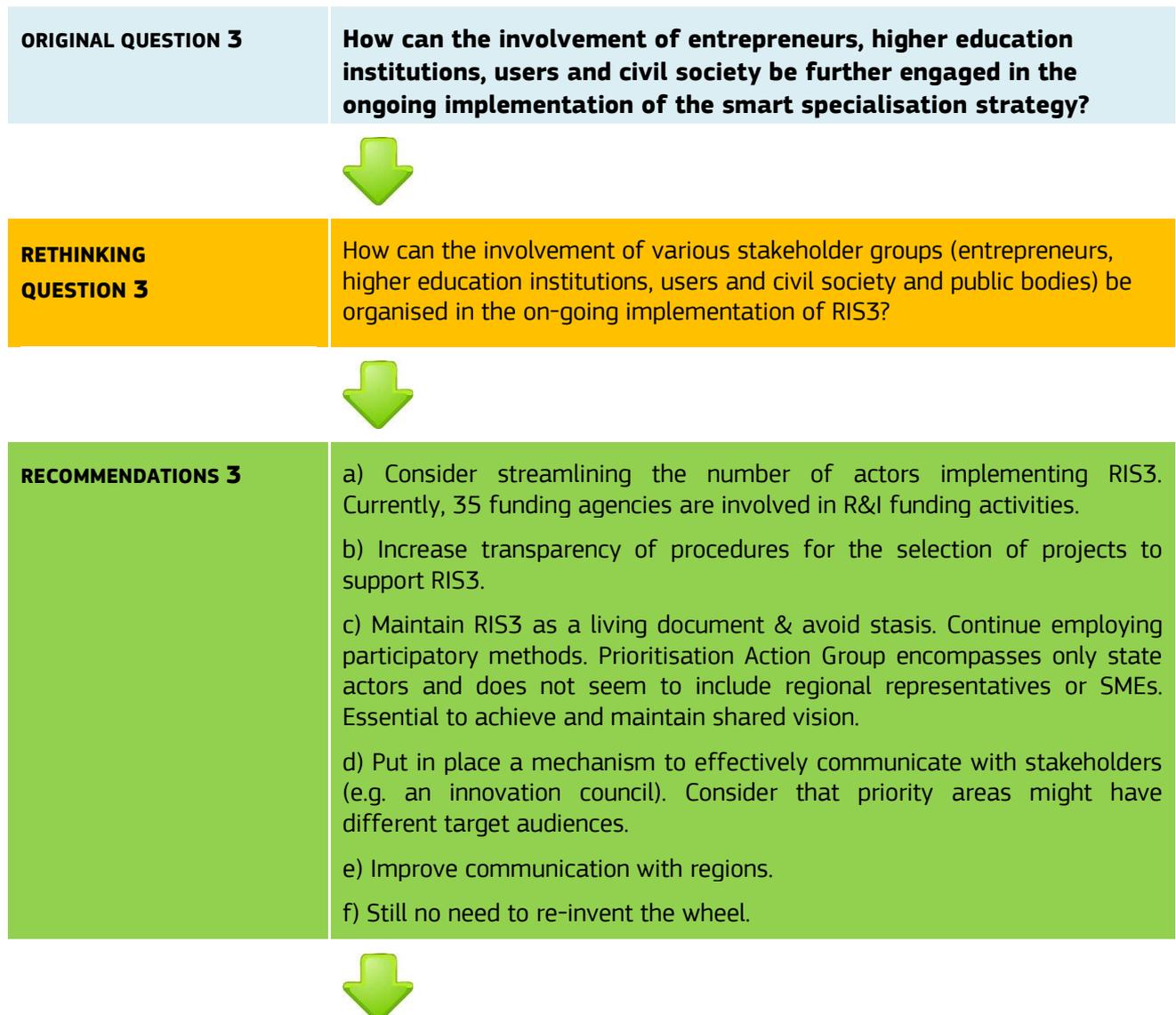
g) Follow the governance approach of Science Foundation Ireland: Use international peer review of proposals to bring vision into practice.

h) Need to look outside Ireland to learn.

i) Building on past success, still more can be done for better connecting MNCs with SMEs in Ireland.

j) Linking clusters in nanotech is very promising; but in some cases it might be better to link directly to firms, not necessarily to clusters.

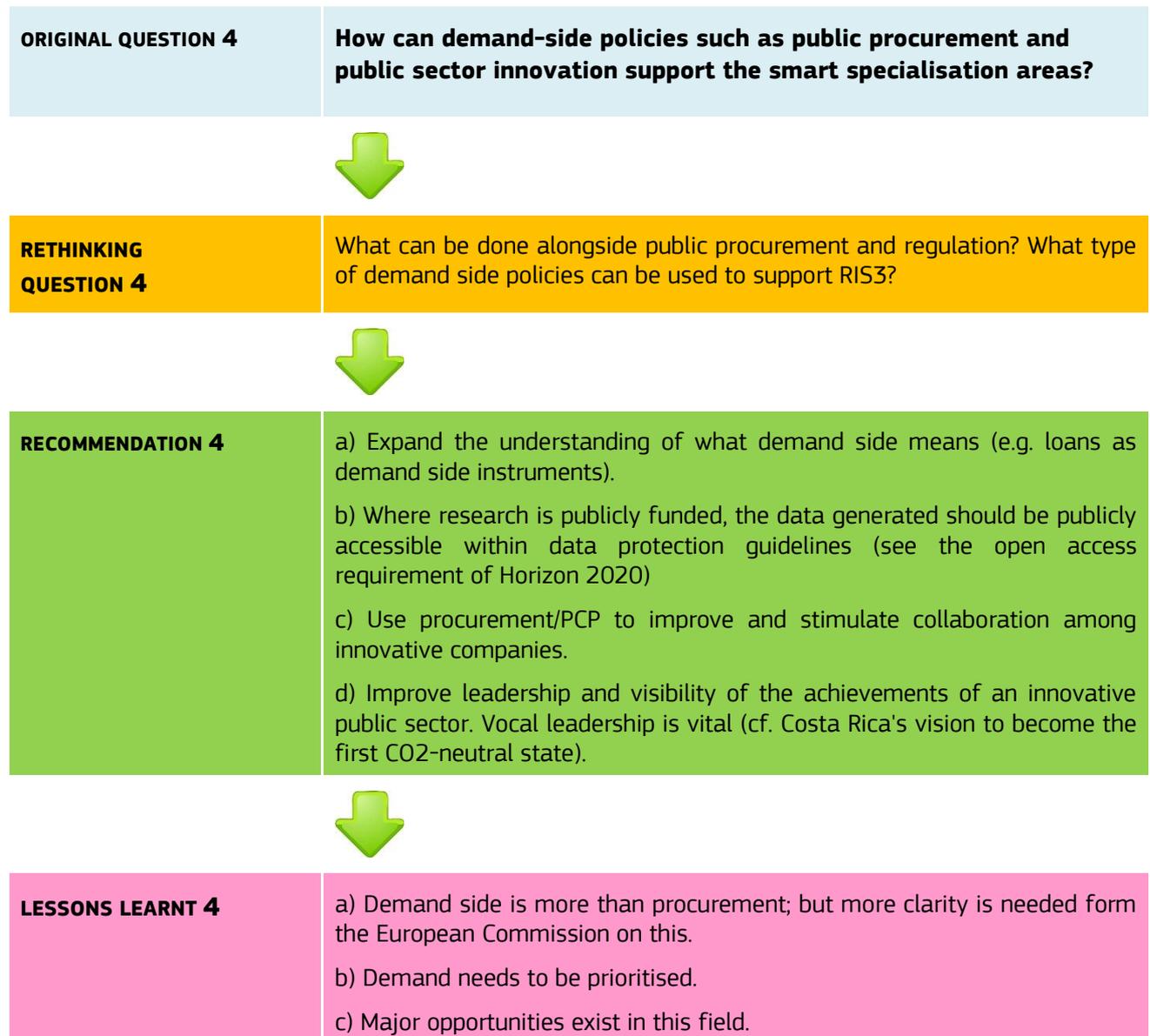
EVOLUTION OF QUESTION 3



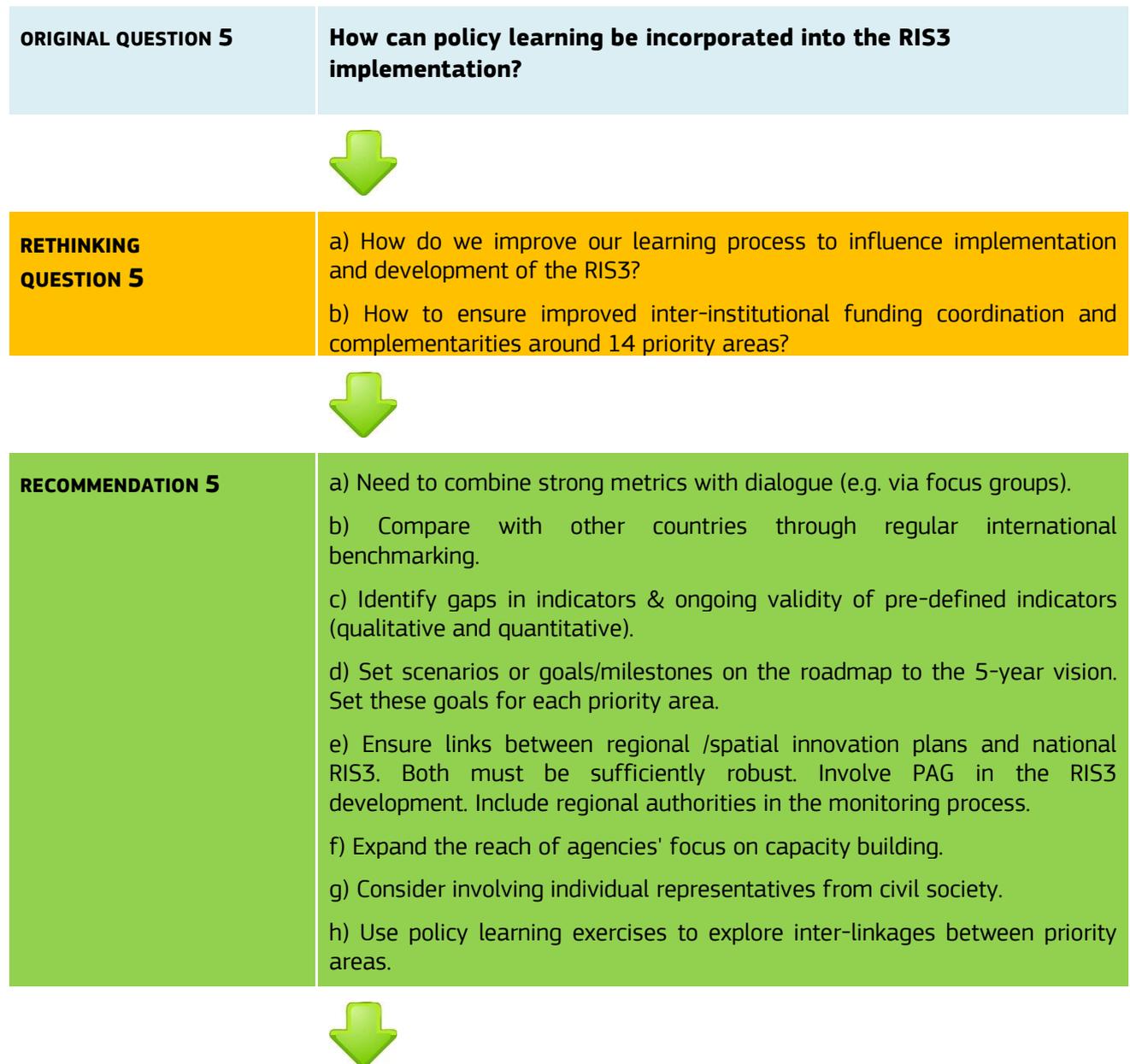
LESSONS LEARNT 3

- a) Not all research has to feed into RIS3.
- b) System is very complex. Reduce complexity.
- c) Transparency is essential for stakeholder cooperation.
- d) The process and its continuity matter.
- e) Smart specialisation is not only about legal ex-ante conditionalities, and it should not be an antagonistic confrontation between European Commission and Member States (this misunderstanding of the other's intentions exists on both sides). It is rather about adopting a long-term perspective and entering an entrepreneurial discovery process.
- f) Think in terms of joined-up government. Ireland needs better/more defined clusters or platforms to enable more joined-up interaction between all actors.
- g) Need to communicate the already very broad stakeholder involvement and its successes to the stakeholders more broadly speaking.
- h) It is important that the 'players' are engaged with each other and that public administrators only act as facilitators. This can accelerate innovation, the sharing of ideas and the discovery of new priorities. Currently, there is possibly too much focus on administrators.
- i) Ireland believes in smart specialisation, since it corresponds to the instincts, thrust and direction of national policy.

EVOLUTION OF QUESTION 4



EVOLUTION OF QUESTION 5



LESSONS LEARNT 5

- a) NRPE has covered everything, but this is not always obvious since much information is 'hidden' in action plans etc.
- b) Robust policy review supported by robust data is important.
- c) Entrepreneurial discovery process should be broadly based: internal, external & at regional/local level. Knowledge is widely spread.
- d) Ensure regional balance.
- e) Need for common sector and common cluster approaches.
- f) There has been policy learning previously, so there is experience to draw upon.
- g) Universities have a role to play in policy learning – now and in the future.
- h) Always consider your eco-system as a whole.
- i) Ireland has ensured an adequate M&E system and is about to turn RIS3 into an ongoing policy learning process.
- j) Balance between policy learning and policy stability is needed.
- k) Clarify overall role of publicity and communication.

PART 6 | ADDITIONAL COMMENTS AND RECOMMENDATIONS

[STRUCTURED FEEDBACK FROM SELECTED EXPERTS, PEERS AND EC]

Ireland has shown what a diversified economy it has and its many strengths particularly in commercialisation. This is an advantage compared to other innovation leaders like Finland. It is important to reap the maximum benefits from this advantage, something that so far has not been fully captured.

Section 1 | Stakeholder Engagement. Ireland has strong political support and commitment to innovation and R&D. Despite austerity pressures, investments have remained constant. The bottom-up discovery process has been well organised. Most experts agreed that Ireland has established very strong governance structures and linkages to national priorities. At the same time, the leadership of the RIS3 process has not been clearly communicated; the same holds true for leading entrepreneurs involved in the process. Having clearly identified leaders serving as focal points would increase visibility and facilitate the interaction with stakeholders. Also, it would make it easier for new stakeholders to join the process. This latter aspect deserves more attention. Finally, it remains unclear if industry linkages been formalised. If not, a vehicle should be designed to ensure industry involvement in the governance set-up.

Good practices to consider

1. A good practice for institutionalising industry involvement is Emilia-Romagna's High-Technology Network for Industry.¹⁷ It is made up of industrial research laboratories and innovation centres, gathers the regional academic institutions and public research centres and provides skills, facilities and resources to the business sector.

Section 2-A | Analytical Work Behind RIS3. Most experts and peers agree that the analysis on which the strategy is based has been very thorough. Robust evidence is the base for the chosen research areas.

Section 2-B | Shared Vision. Ireland has managed to create a shared vision for R&I together with stakeholders. What still can be improved is raising the awareness of this shared vision and the good process so far in the broader public and among stakeholders.

Section 3 and 4A | Priorities and Action Plan. Most experts and peers were impressed by the degree of priority setting at the national level. The specialisation on 6 sectors is adequate for a country that has to cover a wider range of specialisations compared to a region. However, it will be very important to minimise the risk of lock-in to path-dependent funding and prioritisation decisions. The strategy must

¹⁷ See: http://www.aster.it/tiki-index.php?page=LaRete_en

See also: http://s3platform.jrc.ec.europa.eu/documents/10157/104147/Elisabetta%20Maini%20-%20Murcia_Agro_S3_Eng.pdf

remain a living document that allows for flexible adjustments in the future. For this, a realistic roadmap and milestones should be elaborated to inform authorities what is working and what is not.

Section 4B | Policy Mix. Most experts and peers agree that the Irish policy mix is balanced and in large parts well-developed. But several aspects deserve more attention. First, the strategy does not pay enough attention to cross-clustering and cross-innovation. Many emerging and promising R&I activities will increasingly occur at the intersection of priority areas. This should be reflected in the instruments chosen and in the governance process (e.g. by establishing regular meetings of related working groups and cluster discussions around specialisation fields).

Second, the strategy could do more to address important topics like access to finance, capacity building and training/skills. Already now capacity building and training/skills needs are addressed in each of the Priority Area Action Plans. Extensive measures have been taken to address access to finance for companies, in particular to SMEs. The Irish authorities are aware of the limitation a focus on high-tech innovation entails. There is indeed a need to refer to the wider innovation agenda that reaches into themes like creativity/creative industries, public sector innovation as an opportunity or social innovation.

Third, more targeted instruments to support non-technological SMEs. This can be done by establishing personal contacts between SMEs, MNCs and researchers etc. More generally, a strategic exchange between industry and science should be facilitated.

Finally, universities could be empowered to become regional profile-shapers and lead institutions in RIS3. Having strong and internationally recognised universities, Ireland can still reap more benefits from more active universities connecting the local context to Europe and the world.

Good practices to consider

2. A good practice for public sector innovation is the UK's Technology Strategy Board (www.innovateuk.org). The Board tackles barriers for firms (access to finance for early-stage development, problems predicting returns, complex and confusing innovation landscape) and supports business-led innovation. Its approach crosses business, academia and government by supporting innovative projects, reducing risk, creating partnerships, and promoting collaboration, knowledge exchange and open innovation.
3. The Basque Country has become a leader in social innovation. The Social Innovation Park in Bilbao, the Basque Centre for Social and Corporate Innovation DenokInn and the Sinergiak centre are just a few examples¹⁸. The EU Commission's Guide to Social Innovation explores different aspects of social innovation.¹⁹
4. The Small Business Innovation Research (SBIR) programme is a highly competitive US programme that encourages domestic SMEs to engage in federal R&D that has the potential for commercialisation. Through a competitive awards-based program, SBIR enables small businesses to explore their technological potential and provides the incentive to profit from its commercialisation.
5. Austria runs a programme called "Lead Institutions" that mobilises universities and research institutions to be active in the entrepreneurial discovery process (www.era.gv.at/regions).
6. Open data can be an important driver for innovation. One example is the Open Data Strategy of the UK Department of Business, Innovation and Skills (www.data.gov.uk/library/bis-open-data-strategy).

Section 5 | Outward Looking Dimension. Most experts and peers agree that Ireland is very much outward-looking, is serious about critical mass and well aware of its position in global value chains. This is why the concept of smart specialisation should be streamlined into the country's benchmarking with other countries. The role of INTERREG could be better specified once the INTERREG programme is finalised. Similarly, there are still more benefits to reap from the internationalisation of SMEs and the strategic cooperation with individual regions and countries.

Section 6 | Synergies between Policies and Funding Sources. While there is an overarching understanding of synergies, more work can be done in the area. Especially references to external funding opportunities (ERDF spending out of programming area, INTERREG, ESF etc.) should be strengthened.

Section 7 | Governance and Monitoring System. Strong agreement exists on the governance and monitoring system, which is generally seen as very advanced. One aspect which could be improved is the regular and adequate communication of the strategy and its results to stakeholders and the general

¹⁸ <http://www.innobasque.com/home.aspx?tabid=573>

¹⁹ <http://s3platform.jrc.ec.europa.eu/documents/10157/47822/Guide%20to%20Social%20Innovation.pdf>

public. Through this, ownership and support for the strategy's implementation could be strengthened. One way to do this is by establishing a dedicated website that presents all relevant information of the strategy and the monitoring data in an easily accessible way (via visualisations etc.). At the same time, such a portal would increase the visibility of the Irish efforts and success stories in R&I. Finally, experts and peers emphasised that monitoring and evaluation should also help to eliminate what is not working. For this, the right indicators still have to be defined.

PART 7 | LESSONS AND ACTIONS

What are the specific lessons for Ireland from this peer review exercise? Below are the main three lessons learnt and possible actions linked to these lessons.

Lesson Learnt 1	Raising awareness of the innovation opportunities and potential applications for SMEs, in particular for less technologically intensive SMEs
Linked Action	Engage with SMEs, representative organisations, public research organisations and enterprise agencies to develop appropriate actions
Responsible Body	Department of Jobs, Enterprise and Innovation (DJEI) & Prioritisation Action Group
Time frame	By Q1 2015
Lesson Learnt 2	Encouraging greater engagement among players, entrepreneurs and other actors, facilitated by the administrators, on implementation and further development of the strategy
Linked Action	Set up arrangements for such engagement at national and regional level
Responsible Body	DJEI & PAG
Time frame	By Q1 2015
Lesson Learnt 3	The need to define Ireland's areas and activities that differentiate its research and innovation capacities in an international context, to connect with clusters/firms internationally
Linked Action	Define, agree and promote areas and priorities for engagement
Responsible Body	DJEI, Science Foundation Ireland & Enterprise Ireland (Horizon 2020 Support Unit)
Time frame	Q4 2014