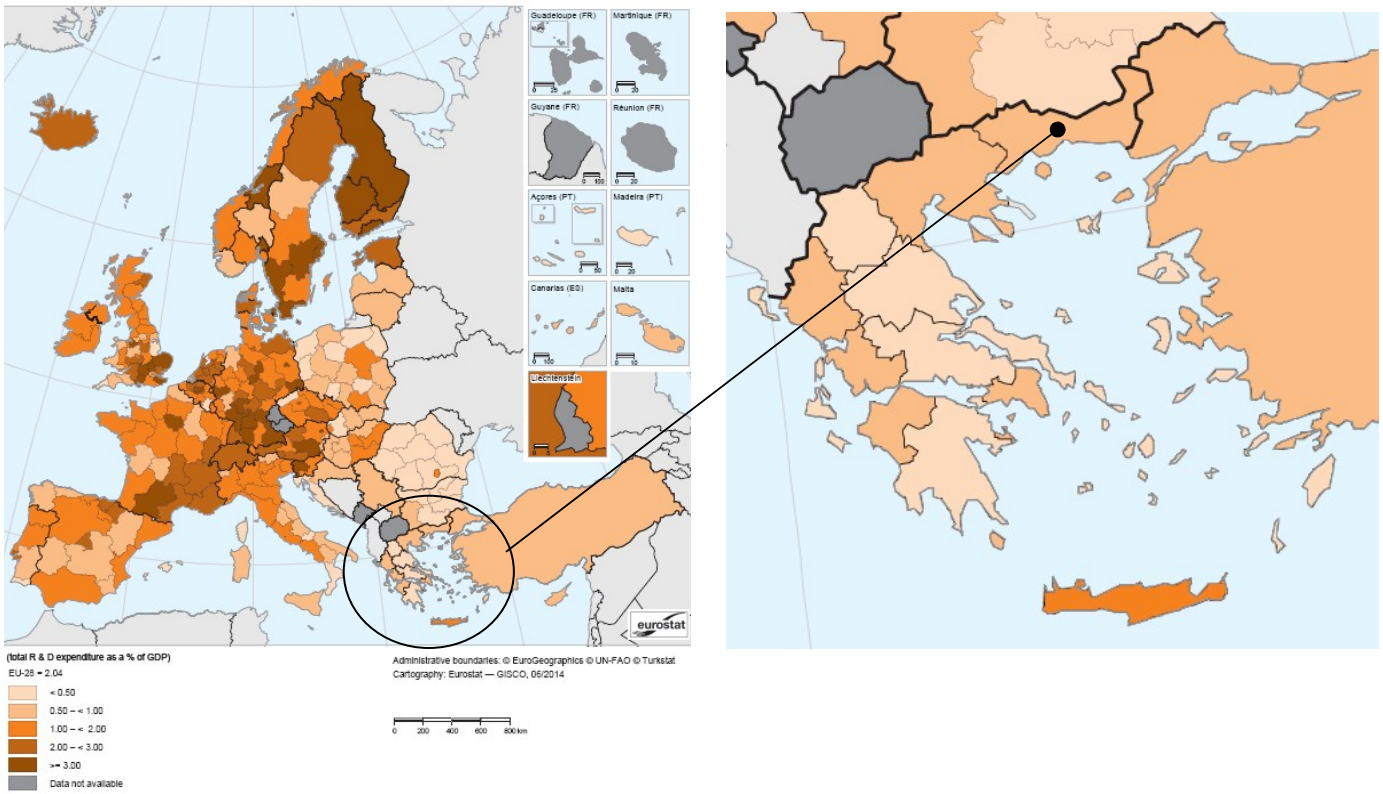
Monitoring & Evaluation System of Regional RIS3



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The Theory:

(according to the RIS3 Guide)

Establishing monitoring indicators and planning evaluations are important elements of the RIS3 design process both at the level of strategy and the different components of the Action Plan.

Smart Specialisation Strategies build on different components aiming at one or a few overall objectives. The monitoring system of these strategies may encompass 3 types of indicators:

- Context indicators scoring the region against the average score of its Member State or other similar regions. These indicators are usually attached to the overall objectives of the strategy
- Result indicators selected for each component of the strategy contributing to the overall strategic goals, e.g. important actions funded by the Structural Funds. These indicators allow verifying whether these actions are successful or not, i.e. whether they lead to the expected change for which purpose they were designed.
- Output indicators measuring the progress of the actions undertaken in order to achieve the expected results.

The Theory:

(according to the JRC Scientific and Policy Report (No.01/2013) "The Goals of Smart Specialization")

Metrics

Each of the goals of smart specialisation identified above suggests natural metrics for measuring progress. Clearly the measurement part of the smart specialisation agenda is still in progress. The indicators for the above-mentioned goals will have to be somewhat eclectic since the trends and evolutions underlying the three goals are not captured by the standard framework of indicators of knowledge and innovation.

However, the need for data and indicators about smart specialisation is critical. Without metrics and indicators as well as regular data collection, the patterns of smart specialisation strategies will not be discernible and policy makers will be unable to track progress, assess structural transformations and compare strategies. There is therefore a pressing need for further research and development in this area to build a collection of available statistics on several dimensions of smart specialisation.[13] Within the framework of this policy brief, we will limit ourselves to a few key suggestions for further development.

[13] Both OECD (DSTI, TIP steering group) and the S3 platform of the IPTS (JRC) are currently deeply involved in the development of a framework of indicators.

The Theory:

(according to the JRC Scientific and Policy Report (No.01/2013) "The Goals of Smart Specialization")

Beyond static approaches aimed at measuring the competitive position of regions in science and technology (patent, publications),[14] checking the correlations between public and private R&D[15] and of course measuring the structures of a regional economy (employment by sectors, etc.), there is a need to measure the emerging trends regarding entrepreneurial discoveries, the development of new activities, the diversification of the system and the generation of critical clusters, in other words, measuring progress towards the different goals of smart specialisation.

The need for developing measures is absolutely crucial since the standard indicator framework is likely to be inadequate for some of the evaluation/assessment objectives. This is why an important challenge for applied economists in the area of smart specialisation is to enlarge the scope of empirical material that the economics profession will regard as legitimate, and perhaps even routine, in applied research. This effort is essential if the economics of smart specialisation is to progress beyond the purely abstract, and enable theory to be linked to practice.

The Theory:

(according to the Frequently Asked Question (FAQs) of S3 platform")

Frequently Asked Questions (FAQs)

7. What result/outcome indicators should be considered to monitor and evaluate the strategy?

The RIS3 guide stresses the importance of defining adequate indicators in order to monitor and evaluate the strategy, but there is no one size fits all, ready-made approach: Indicators should be tailored to each region's specific circumstances, and this means that the identification of the appropriate indicators for each region has to be closely linked to the identification of RIS3 priorities and the design of an action plan.

A very useful approach

http://s3platform.jrc.ec.europa.eu/documents/10157/63241/MartinezYoldi_130125

The Economic Strategy of Navarra Towards 2030

NEW ECONOMIC MODEL OF
MODERNA
DEVELOPMENT FOR NAVARRA

Cernin Martínez Yoldi
General Director Fundación MODERNA
Groningen, 25 January 2013

A plan in motion

AREA	INDICATOR	STARTING POINT	CURRENT 27/11/2012	OBJECTIVE 2015	OBJECTIVE 2020	OBJECTIVE 2030
EDUCATION	PISA points Source: PISA	502 Year 2006	505 Year 2009	510	525	550
	% Population aged 18 with a B2 level of English Source: Estimate	7% Year 2010	7% Year 2010	30%	50%	90%
	% of Honours Graduates and Pre-university Source: Ministry of Education and Government of Navarre (<2009) / Eurostat (>2009)	36,0% Year 2007	39,7% YearYear	40%	45%	55%
INNOVATION	% Investment in R+D+I Source: INE	1,92% Year 2008	2,05% Year 2011	2,20%	3,00%	4,00%
	Total No. of Patents Source: OEPM	172 Year 2008	176 Year 2011	285	410	844
	Innovation Index and position in Europe Source: Eurostat	0,48 y 76 Year 2006	0,529 y 53 Year 2011	0,51 y 60	0,60 y 50	0,70 y 35
INTERNATIONALIZATION	Exports (M€) Source: IEN	5.450 Year 2009	6.827 Sep'11-Aug'12	6.500	8.000	10.000
	No.of exporting companies Source: ICEX - Estacom	711 Year 2009	801 Sep'11-Aug'12	1.000	1.300	2.000
	No. of multinational companies Source: Navarre Chamber of Commerce / Sodena	133 Year 2010	133 Year 2010	150	175	200
EMPLOYMENT AND COMPANY	No. employees Source: IEN - EPA	284.000 Year 2009	262.700 EPA 3rd T 2012	298.000	331.000	365.000
	Production per worker (€) Source: IEN	61.000 Year 2009	67.867 Year 2011	68.000	73.000	85.000
	% of companies over 50 workers Source: INE	1,30% Year 2009	1,21% Year 2011	1,60%	2,00%	2,50%
	Nº of new companies/Year Source: IEN	943 Year 2009	950 Oct'11-Sep'12	1.100	1.250	1.600
PROSPERITY AND SOCIAL COHESION	Position in GDP/Capita Source: Eurostat	32 Year 2007	37 Year 2009	30	25	20
	GDP per Capita in Purchasing Power Parity (PPP) Source: IEN	30.614 Year 2007	32.900 Year 2009	34.000	37.000	43.000
	Distribution of wealth Source: IEN	28 Year 2007	28 Year 2007	27	26	23
	Quality of life (HDI) Source: IEN, PNUD & INE	0,9720 Year 2007	0,9720 Year 2007	0,9725	0,9790	0,9870
	Enviromental sustainability	2.132	2.029	1.900	1.650	1.450

How to estimate the progress ?

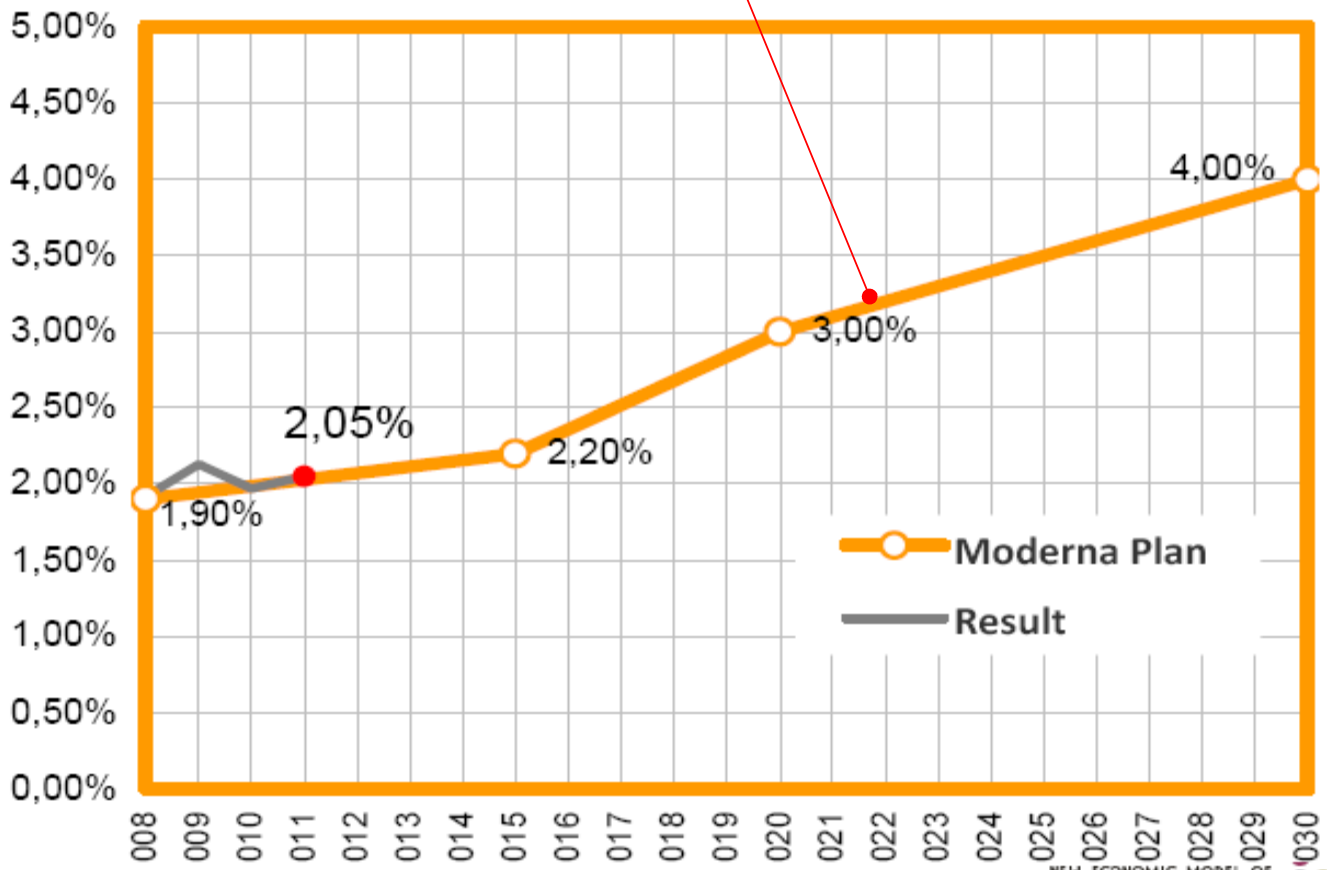
INDICADORES

INVESTMENT IN R+D

% of regional GDP

Source: INE

1,90%	
Start	2008
2,05%	
Last datum	2011
2,20%	
Objective	2015
3,00%	
Objective	2020
4,00%	
Objective	2030



The influence of RIS3 Strategy may be less important than other parameters. How can we separate the effects?

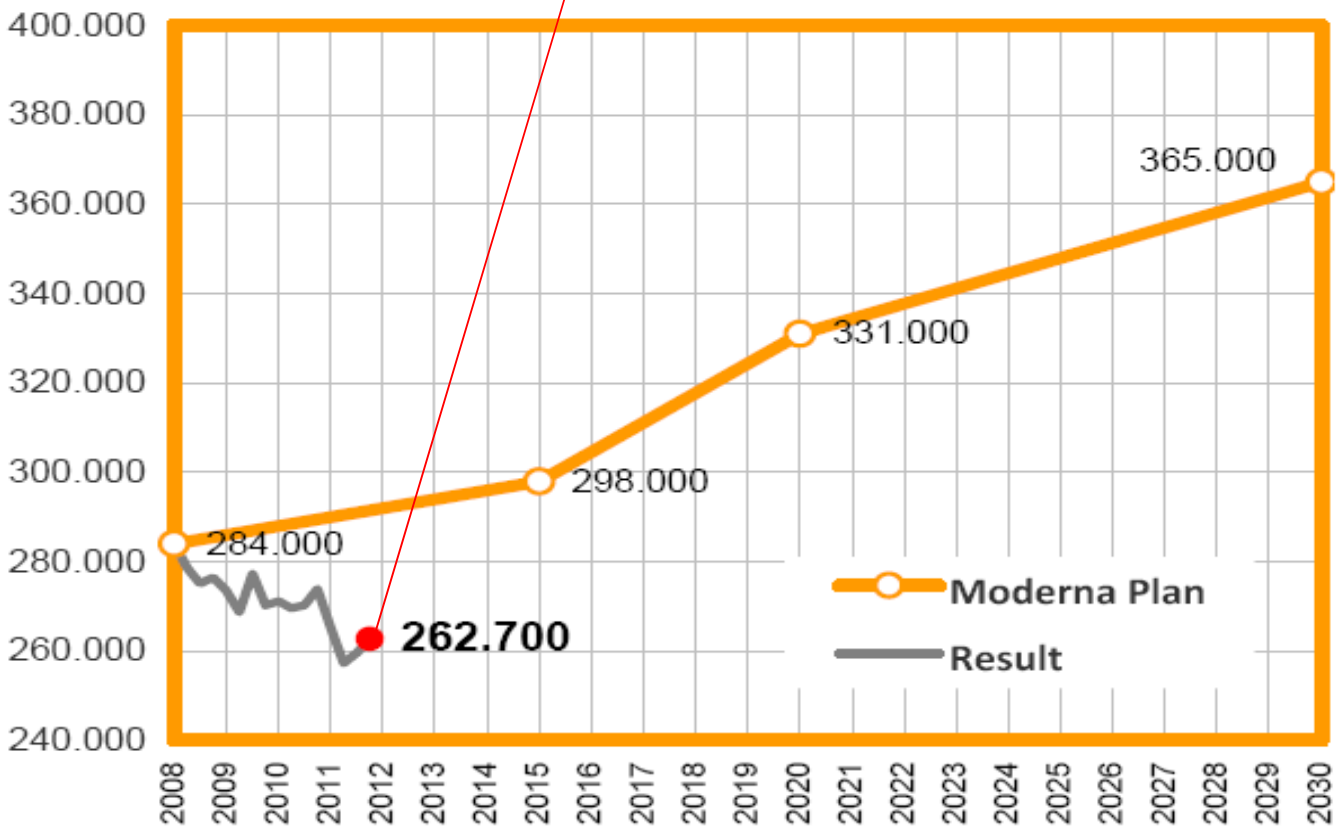
INDICADORES

EMPLOYMENT

No. workers (EPA)

Source: IEN - EPA

284.000	
Start	2008
262.700	
Last datum	EPA 3ºT 2012
298.000	
Objective	2015
331.000	
Objective	2020
365.000	
Objective	2030



An other very useful approach

http://s3platform.jrc.ec.europa.eu/documents/10157/63241/Bertamino_DeMaggio_130124

DPS
Dipartimento per lo Sviluppo e la Coesione Economica

Context indicators at the regional level: the Italian experience

Federica Bertamino and Marco de Maggio

UVAL – Public Investment Evaluation Unit
Department for Development and Cohesion Policies
Ministry for Economic Development, Italy

Groningen
24-25 of January 2013

Monitoring & Evaluation System of Regional RIS3

INDICATOR 1 – ECONOMIC AND INSTITUTIONAL REGIME
Gross Capital Formation as % of GDP (Average)
Employment in Services (% of total employment)
Trade as % of GDP
Soundness of Banks
Exports of Goods and Services as % of GDP
Difference between Enterprise Birth and Death Rates (percentage)
Cost to Register a Business (% of GNI per capita)
Days Required to Start a Business
Cost to Enforce a Contract (% of debt)
Rule of Law
Control of Corruption
Added value of Business Services Sector per Employee in the Same Sector
Added Value of Industry Sector per employee in the Same Sector

INDICATOR 2 – EDUCATION AND SKILLS
Adult Literacy Rate (% age 15 and above)
Secondary Enrollment (% gross)
Tertiary Enrollment (% gross)
Public Spending on Education as % of GDP
School Enrollment, Secondary, Female (% gross)
School Enrollment, Tertiary, Female (% gross)
No Schooling, total
No Schooling, female
Secondary School completion, total (% of pop 15+)
Tertiary School completion, total (% of pop 15+)
Secondary School completion, female (% of pop 15+)
Unemployment Rate (% of total labor force)
Employment in Industry (% of total employment)
Employment to Population ratio
Adult Unemployment rate
Long-term Unemployment, total
Labor Force with Tertiary Education (% of total)
Labor Force with Secondary Education (% of total)
Population Studying or Attending a Professional Training Course
Science and Technology Graduates aged 20 to 29 per 1,000 people

INDICATOR 3 – INFORMATION AND COMUNICATION INFRASTRUCTURE
Telephones per 1,000 people
Telephone Mainlines per 1,000 people
Mobile Phones per 1,000 people
Computers per 1,000 persons
TV Households with Television
Daily Newspapers per 1,000 people
International Internet Bandwidth (bits per person)
Internet Users per 1,000 people
Fixed Broadband Internet Access Tariff (€ per month)
Enterprises in Industry and Services - less than 10 employees - with Computer Availability (percentage)
Enterprises in Industry and Services - more than 10 employees - with Computer Availability (percentage)
Municipalities provided with Wide Broadband as percentage of the total number
Household Internet Access as percentage of the total
Number of Employees in Enterprises (with more than 10 employees) in Industry and Services who use internet (percentage)
Enterprises in Industry and Services (with more than 10 employees) holding a Web Site as percentage of the total

INDICATOR 4 – INNOVATION SYSTEM
FDI Outflows as % of GDP
FDI Inflows as % of GDP
Royalty and License Fees Payments, (€ millions)
Royalty and License Fees Payments (€ millions) per million population
Royalty and License Fees Receipts (€ millions)
Royalty and License Fees Receipts (€ millions) per million population
Royalty and License Fees Payments and Receipts (€ millions)
Royalty and License Fees Payments and Receipts (€ millions) per million population
Science and Engineering Enrollment Ratio
Science Enrollment Ratio
Patent Applications Granted by the EPO per million people
High-Technology Exports as % of Manufactured Exports
Private Sector Spending on R&D
R&D *intra muros* Expenditure of Public Administration, Universities and Private and Public Enterprises (percentage of GDP)

Federica Bertamino - Marco De Maggio

Still missing dimensions of analysis: suggestions for further integration and regional profiling

Firms adaptability to change

«**Agents of change**» (Foray, 2000)
Carter's indicator: «rate of knowledge workers within firms»

Entrepreneurship

Global Entrepreneurship Index -GEINDEX
(Acs and Zerb, 2009)
14 indicators
(E.Attitudes – E.Activities – E.Expectiations

Knowledge Intentive Services

KIS as innovation levers of the other sectors. Possible indicator: "*Employees in KIS ICT based (NACE 64, 72, 73) as percentage of the total*". (Challenges for EU support to innovation in services- Fostering new markets and jobs through innovation, PRO INNO Europe, n. 12)

Still missing dimensions of analysis: suggestions for further integration and regional profiling

Diversification Rate

Inter-Industry Relatedness Index
(Teece et al, 1994)
Measure of the correlation between 2 industrial sectors

Specialization Rate

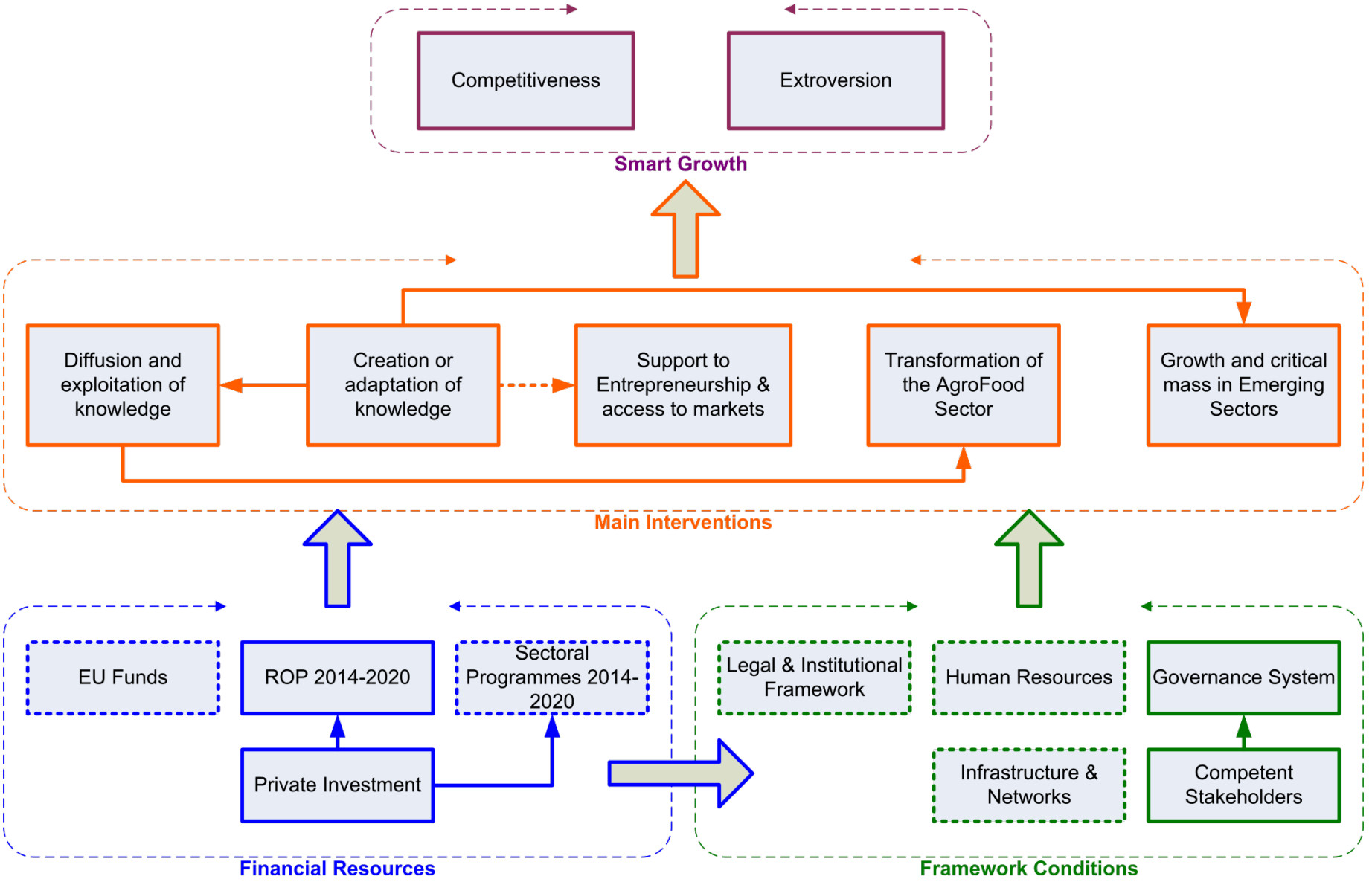
Revealed technological/comparative advantages Indicator
(Balassa, 1965)
Measure of the specialization (technological or trade) of a country/region

Intensity of connections

Measure of wideness and density of connections (track of knowledge exchange flows – collaboration) among the different actors of the territory (Triple Helicx, Etzkowitz, 1994). SNA Density measure.

Monitoring & Evaluation System of Regional RIS3

Our Balanced Scorecard-inspired approach for the monitoring system:



Our approach

Results Indicators at the Regional Operational Programme relative to RIS 3 Strategy

Code	Indicator	Units	Base Value	Base Year	Target Value (2023)	Source of data
T1012	R & D Expenditure of Enterprises as a percentage of GDP	Percentage	0,16%	2013	0,20%	National Documentation Centre /Eurostat
T1013	Number of technology transfer agreements between public research organizations and businesses	Number	54	2013	75	Regional Research
T1014	Persons interacting online with public authorities in the last 12 months.	Percentage	35,53	2013	50,00	Eurostat - ICT Households survey
T1015	Percentage of start-ups / new companies in the RIS3 sector to total new business	Percentage	3,71%	2013	8%	Creek General Commercial Register
T1016	Gross Value Added	million €	7.226	2011	7.373	Eurostat
T1017	Export Value	million €	682,55	2013	745	Eurostat
T1035	Number of overnight stays of foreign tourists in hotels	Number	677.513	2012	750.000	Eurostat

Our approach

Common indicators at the Regional Operational Programme relative to RIS 3 Strategy

Code	Indicator	Units	Target Value (2023)	Source of data
CO29	Number of enterprises supported to introduce new products in the business	Enterprises	250	Monitoring system
CO27	Private investment corresponding to public support in innovation or R & D projects	€	3.500.000	Monitoring system
CO26	Number of enterprises cooperating with research institutions	Enterprises	300	Monitoring system
CO04	Number of enterprises receiving non-financial support (incubators)	Enterprises	30	Monitoring system
CO05	Number of new enterprises supported	Enterprises	100	Monitoring system

Actually there is one Main Question:

Taking into consideration all the above facts, which indicators should be used?

Question 1:

How to select a set of appropriate indicators for monitoring the RIS3 strategy (*examples from other EU regions output indicators*) ?

Question 2:

How to design a set of result indicators for monitoring the RIS3 strategy (*examples from other EU regions output indicators*) ?

Question 3:

How to co-ordinate the monitoring and verification system on national and regional level? How to provide synergies?

Question 4:

Which is the maximum number of indicators (*input, output, result*), that an efficient and functional monitoring system should have?

Question 5:

Should the RIS3 monitoring system focus on Thematic Objectives 1-3

or

it should try to provide a more holistic description (*& monitoring*) of the regional development strategy?

Question 6:

Is it possible for the Regional Authorities to set valid result targets, in a region with no direct influence on framework conditions (*i.e. tax, labour or education policy) and* 90% of the regional budget for R&D&I managed by the national authorities?

How can you strike the best possible balance between the national targets and the regional specificities?

Monitoring & Evaluation System of Regional RIS3

Thank you for your patience…

… now let us search for answers!

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