

MALTA

Towards a RIS3 strategy



Budapest, 24-25 June 2013
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Questions for discussion with our critical friends:



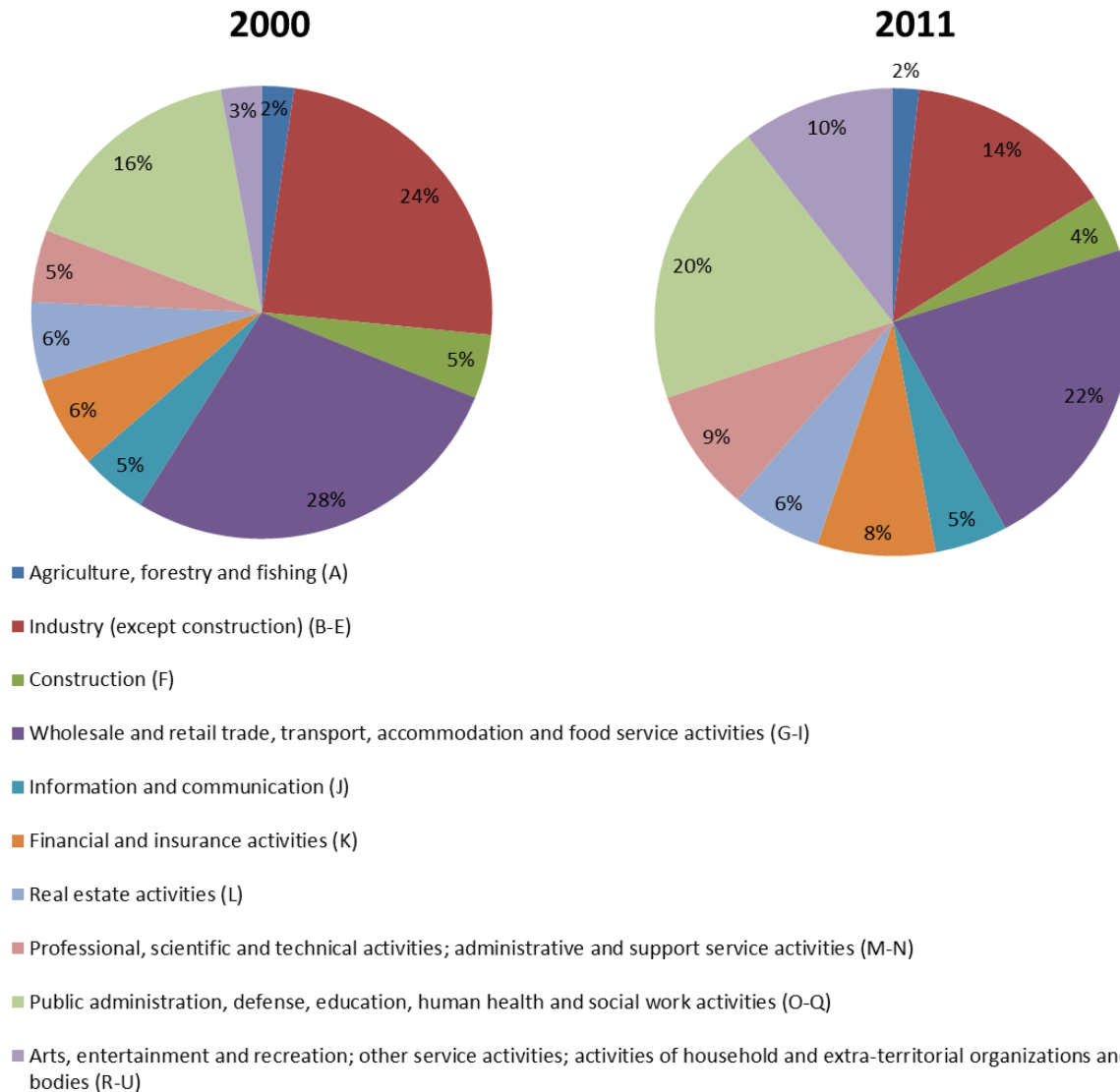
- What relationship do you see between your smart specialisation strategy and your national research and/or innovation strategy?
- Do you face challenges in data availability? How do you plan to overcome them without jeopardising the RIS3 objectives?
- How do you ensure follow up and ownership of the RIS3 at the implementation level, especially by the private sector?
- How do you build in flexibility to respond to changing circumstances?
- How do you plan to address the monitoring aspect of the smart specialisation strategy?

Background to Malta

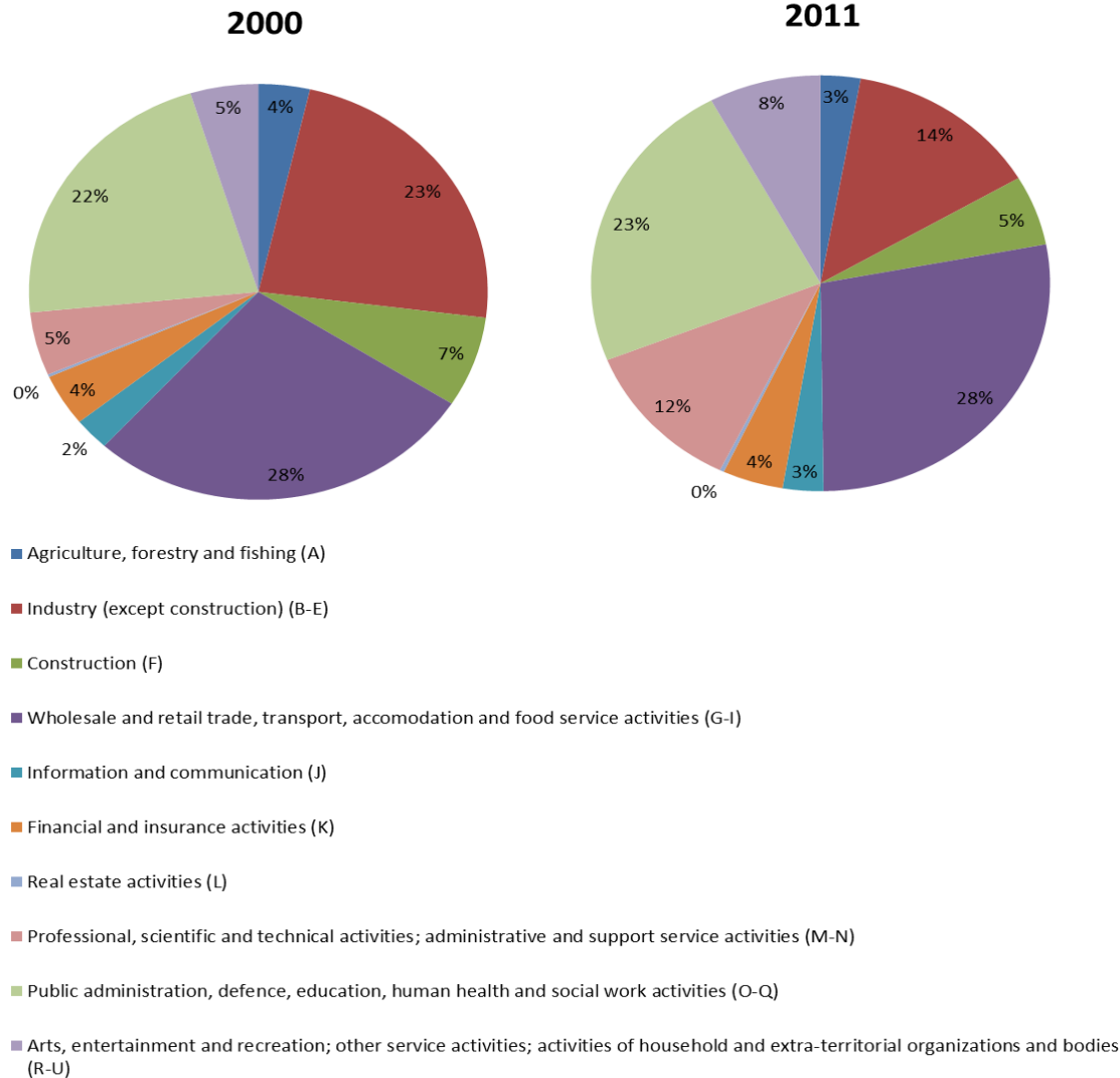


- Smallest EU Member State in terms of both area (316 sq. km.) and population (c. 410,000).
- Very high population density – 1317 persons/ sq. km.
- Southern-most tip of Europe (located c.90km south of Sicily and c. 290km north of Libya).
- Open economy, heavy reliance on international trade.
- Estimated GDP in 2012: €6,755.9 million (+3.0% compared to 2011).
- Unemployment rate: 6.5%
- 97.1% of business units are micro-enterprises; 0.001 are large.
- One university (c.11,000 students, including 650 international students from 77 countries. Almost 3,000 students graduate in various disciplines annually).

Overview of the economy – contribution to GVA



Overview of the economy - employment



Malta's Research and Innovation Strategy 2007-2010



- All R&I strategic planning takes place at the national level.
- Very short history of investment in R&I.
- National Strategic Plan for Research and Innovation 2007-2010.
 - Defined vision for R&I in Malta (*“Research and Innovation at the heart of the Maltese economy to spur knowledge-driven and value-added growth and wealth”*).
 - Established a mission to be achieved over this time period (*“Building and sustaining a R&I enabling framework”*)
 - Identified 66 measures to implement seven strategic principles.
 - Highly business-driven.

Malta's Research and Innovation Strategy – preparation of a 2020 Strategy



New National R&I Strategic Plan 2020 (*draft*):

- Retains vision and mission as well as business orientation.
- Greater focus on societal challenges.
- More focused intervention on six pillars (policy design, human resources, infrastructures, innovation, funding, international cooperation).
- More focus on innovation support (wider contextual understanding of innovation)
- Builds on actions over the 2007-2011 period, such as:
 - Increased funding for competitive R&I
 - Infrastructural R&D investments
 - Scholarship schemes
 - Development of thematic strategies for particular sectors
 - Industry support schemes (grants, tax credits, etc.)

Research and Innovation - main indicators



- Gross Expenditure on R&D in 2011 was 0.73% of GDP, out of which:
 - 0.49% from business
 - 0.02% from government
 - 0.22% from higher education
- Number of researchers: 755 FTE in 2011 (0.42% of the active population in 2011, compared to 0.67% of the EU-27)
- 'Moderate Innovator' under the European Innovation Scoreboard 2013 and a moderate grower within this group. Malta's biggest weaknesses identified as 'human resources' and 'finance and support'. Good progress made in the number of doctoral graduates.

Place-based dimension of the RIS3 - SWOT

STRENGTHS:

Established high value-added economic sectors,
Significant investments in a well-established higher education system already made, especially through ERDF and ESF.
Stable political, economic and financial system.

WEAKNESSES:

Young system – lack of home-grown science-based industries and lack of R&I culture.
Unavailability of large scale research infrastructures as well as private financial support.
Lack of critical mass.
Fragmentation.

SWOT

OPPORTUNITIES:

Building on existing high value-added sectors and strengthening other large economic sectors through innovation.
More international collaboration.
Exploiting Malta's small size for use as a test bed.

THREATS:

Overall European economic, political and financial instability.
Brain drain.
'Quick-wins' mentality.
One-size-fits-all EU policies.

Place-based dimension of the RIS3 – main steps of the process



- 2011 – SWOT analysis of national R&I system undertaken through consultation with main stakeholders as part of the preparation of the new national R&I Strategic Plan.
- End 2011 – Draft National R&I Strategic Plan 2020 issued for public consultation.
- April 2012 - Conclusion of first smart specialisation document – economic analysis undertaken.
- September 2012: Malta joins S3 Platform by JRC-IPTS.
- January 2013: Expert contracted by DG REGIO to support/assess MT in preparation of S3. Meetings (c. 20) with top government officials, public entities and social actors.
- February 2013: first workshop with private stakeholders.
- February 2013: Experts contracted by DG RTDI to assess MT's S3 process.
- April-May 2013: 20 focus group meetings with private stakeholders centred around tourism, energy, ICT, creative industries, health, high value-added manufacturing, financial services, transport and 'other'.
- May 2013: First meetings at political level.

Entrepreneurial dynamics



Involvement of the business community:

- Smart specialisation has served to strengthen the involvement of the business community in R&I Strategic Planning.
- Overall strong interest expressed to call for expression of interest, participation and follow up, however a 'thinking gap' between the RIS3 requirements and the reality of business was evident.
- Excellent support from the Malta Chamber of Commerce, Enterprise and Industry (dissemination of information, mobilisation of participants, etc.)

Involvement of academia:

- Strong interest, support and input throughout the whole process and at the highest levels.
- Regular liaison with the Rector of the University of Malta and pro-Rector for Research and Innovation, including with the DG REGIO expert.

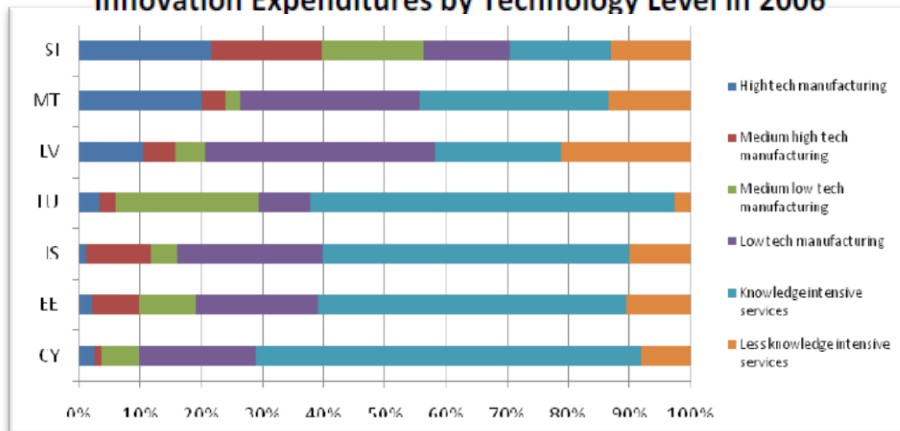
Collaboration between academia and industry:

- Increasing over time, the will exists but the instruments for it are still being put in place.
- Niche areas identified through smart specialisation will seek to bring together expertise from both camps while strengthening the overall national R&I landscape.
- Strong support by the business sector to the need to support education and R&D in academia.

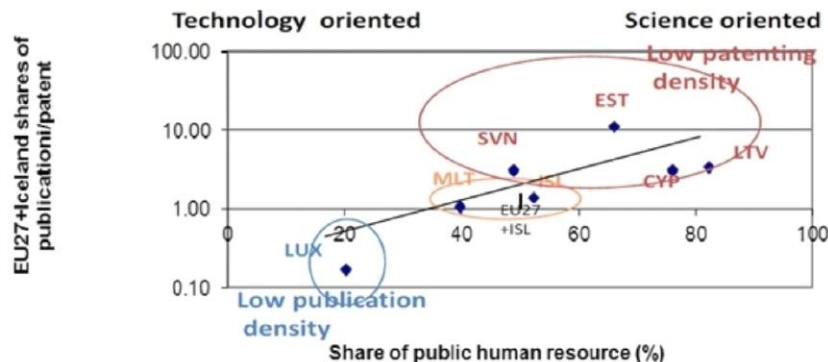
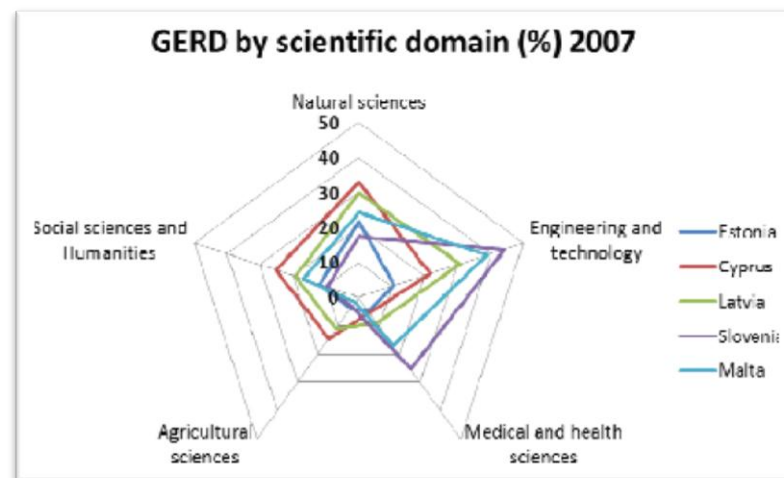
Beyond our boundaries

(ERAPRISM project outcomes)

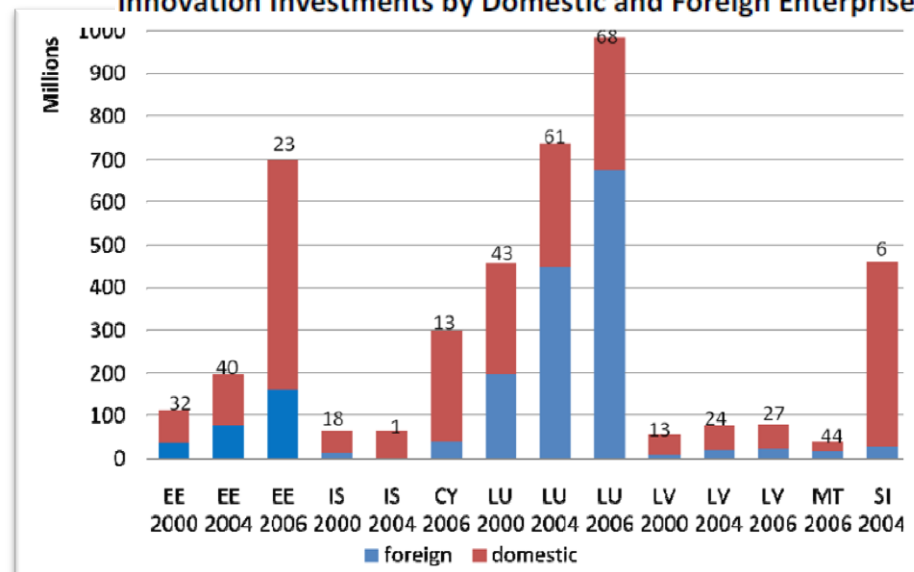
Innovation Expenditures by Technology Level in 2006



GERD by scientific domain (%) 2007



Innovation Investments by Domestic and Foreign Enterprises



Beyond our boundaries - specialisation

(ERAPRISM project outcomes)

Challenges of using indicators to examine the specialisation patterns in small countries:

- *Entry and exit of (just one!) influential player from the sample*
- *Large and one-off R&D investments by one or few companies, especially if the economic activity to which the enterprise belongs to has relatively low average R&D investments in Europe.*
- *Switch of one company from one NACE class to another.*
- *The lower the GDP, the bigger the changes in the specialisation index. Thus, it seems more likely for the small economies to suffer from instability in the specialisation index.*
- *Instability is associated with the size of the country. The smaller the economy, the more there is variation in the specialisation profiles.*

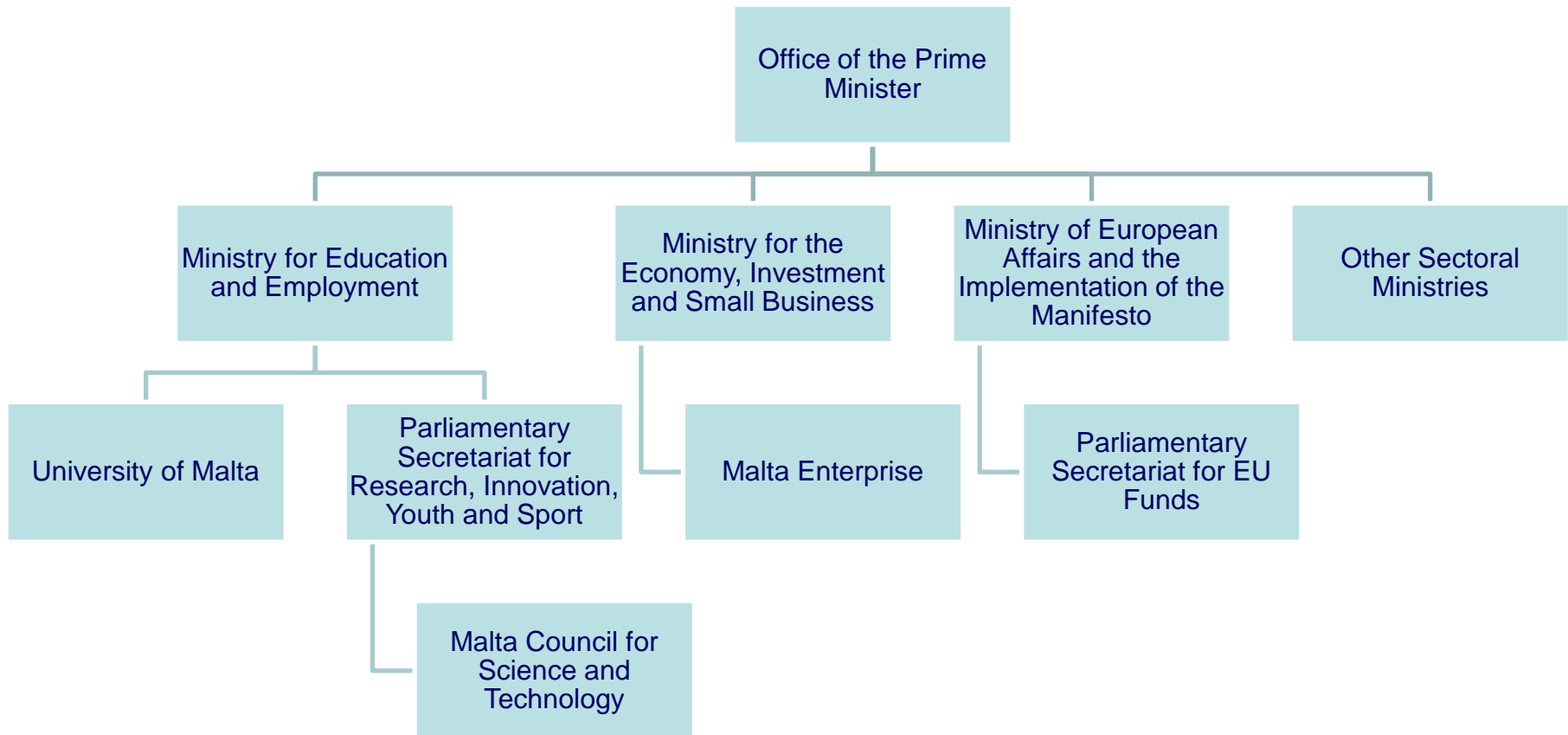
In addition:

- *The sample defining the group of comparison as well as the indicator applied matters greatly for the results.*
- Instability problem could be avoided if the yearly averages were replaced by moving averages with a long enough window. The average could be weighted emphasising the latest years.*

Therefore:

Specialisation of small countries changes a lot more than for larger countries from year to year. Unless one knows the economy and the data very closely it isn't possible to distinguish changes due to actual developments from the changes driven by data.

Governance - National set up



Governance of the RIS3 process



- The Malta Council for Science and Technology coordinates the RIS3 design process for Malta.
- No dedicated national partnership set up specifically for the RIS3 preparation. An advisory group was set up in tasked with evaluating proposed R&I measures in the draft National R&I Strategy. This advisory group is tasked with validating the relevance of proposed measures to the business enterprise sector following the sector's input. It is planned that this advisory group will become a more permanent setup in the future.
- At such a small scale, all major stakeholders are known to each other and are easy to identify.
- All stakeholder (large or small) were invited to express interest in the process and to participate in it through call for expression of interested on local media, dissemination through the databases of all organisations, etc.
- Tentative RIS3 priorities are being identified on the basis of mutual reinforcement of niches from the outcomes of the desk-based economic analysis overview, input from public sector consultees and private sector input.

Priorities



Three mutually-reinforcing action lines:

1. Framework conditions

Rationale:

- *Malta's young R&I system means that full complement of support measures for an overall enabling framework at the national level is still needed.*
- *Focus groups revealed needs common to all areas: access to finance, support to IP protection, human resource capacity, internationalisation support, etc.*
- *Measures may prioritise niche areas.*

2. R&D investments linked to priority niche areas

Rationale:

- *Investment in knowledge generation to reinforce identified niches as well as contribute to a stronger R&I framework.*
- *Build critical mass in R&D – focus on interdisciplinary research as one important strength both of itself and in relation to linkage with industry.*

3. Projects clustered in priority areas

Rationale:

- *Building on existing strengths (ex. maritime sector, tourism).*
- *Need to address local challenges (ex. resource-efficient buildings).*
- *Supported through framework conditions as well as dedicated projects.*
- *Clear links to R&D investments and academic collaboration.*

Tentative Priorities



Tentative priorities identified as follows:

- Tourism marketing and digitisation of heritage
- Maritime Services cluster
- Aerospace cluster
- Health-related initiative
- Resource efficient buildings
- Modernisation platform for high value added manufacturing (horizontal cluster)
- Creative space and supporting measures
- ICT
- Climate change adaptation

Digital Growth Priorities?



National level

- Malta Digital Economy Vision: <https://meib.gov.mt/en/Pages/Home.aspx>
- National Strategy for a Digital Economy formulation underway and targeted for completion in December 2013.
- Malta Information Technology Agency (MITA) – IT agency responsible for Government ICT e-infrastructures; national policy advisor on digital economy.
- Structured workshops to involve various stakeholders is planned over the coming weeks.
- SWOT analysis with wide stakeholder base already carried out in March 2012 (based on DAE) and in November 2012 (ICT R&I) <https://www.mita.gov.mt/page.aspx?pageid=645>.
- Mechanisms to balance support for supply/demand of ICTs, measure progress and assess needs for ICT capacity-building are being studied.

Digital Economy

The Citizen

- Wider digital competence
- Protecting individuals 'on-line'
- From early years

Civil Society

- ICT to bring about good value to society
- e-Democracy

The Business Sector

- Use ICT to create an enabling framework to support industry especially SMEs
- Support the ICT industry and current flagship initiatives
- Encourage specialisation of ICT industry (niches)

Government Administration

- Innovative procurement
- Increase responsiveness to citizens and enterprises

Technology:

- Retain the international profile that Malta enjoys
- Refresh technology stacks
- Capitalise on opportunities presented by new technologies.

Digital Growth Priorities?



- ICT considered a key enabler for the advancement of the Maltese economy – currently among the highest contributions to national GDP in Europe (5%)
- An anticipation of some possible action lines:
 - One tablet per child in Year 4
 - Strengthening education and human capital through ICT and e-Learning
 - High speed bandwidth to homes and businesses
 - Increased focus on citizen empowerment and e-participation
 - Reduce bureaucracy by 25%
 - Enabling environment for ICT R&I and industry-academia collaborations
 - ICT as a means of supporting the SMEs “Born-Global” concept
 - Harnessing ICTs and mobile devices to enhance and exploit cultural heritage
 - Widen the deployment of healthcare e-services
 - ICT-based green initiatives
 - Increased focus on user-centricity
 - Support the local software industry

Rural Development



- Malta's very small size, extremely high population density, considerable built up landscape and the limited (and increasingly threatened) natural habitats highlight the importance of careful management of the rural areas as a national resource.
- Agriculture - important in shaping the rural landscape, but, as an economic activity, it is hindered by complex structural issues:
 - Very small size of fields which are getting smaller and smaller as the tenancy of the land is inherited from one generation to the next.
 - Opportunity cost of land, which results in a high economic rental value of land in Malta when compared to that in the other countries where land scarcity is less of a problem. The
 - High labour costs due to very limited labour supply.
- Promoting multifunctional agriculture within a wider framework of integrated rural development remains the overarching objective for the 2014-2020 period.

Some tentative proposed measures include:

- improve the processing of agricultural products
- secure the integration of primary producers into the food chain
- securing increased co-operation between farmers
- upgrading of existing, and the development of new, national infrastructure related to the sector
- strengthening linkages between the primary production and the tourism industry
- development of very specific niche products

Implementation and Budget



- Work is still ongoing in this area – various discussions with the main public players as well as enterprise are ongoing.
- Will involve a mix of national and ERDF/ESF funding, aiming to leverage more business investment. Multi-annual financial planning remains a challenge.
- Measures to address framework conditions will likely be championed by the public sector. They will likely involve retaining and strengthening existing measures (scholarship schemes, grant schemes, etc.) as well as putting in place new horizontal measures which are identified as horizontal needs (IP support, knowledge-transfer support, etc.)
- Measures relating to the R&D infrastructural investments will likely be championed by the academic sector, however with clear linkages in scope to the private sector.
- Initial implementation of niche area projects will likely involve the setting up of a platform for facilitating collaboration between the private and public sector in order to drive each initiative forward.

Measuring the progress

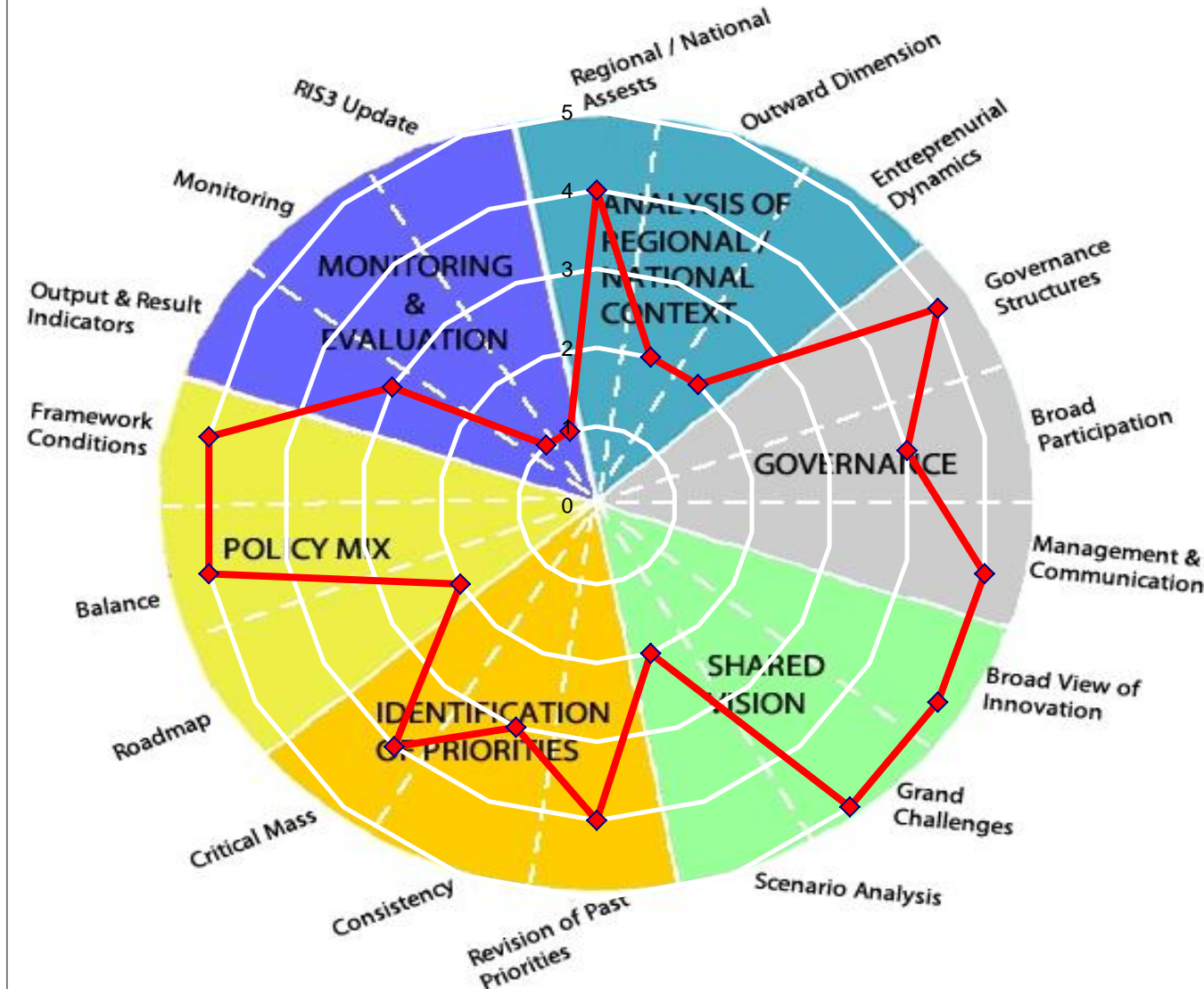


- Framework Conditions – indicators for monitoring progress identified as part of the preparation of the draft national R&I Strategic Plan 2020. These are:
 - Number of doctorate holders as a percentage of the active population
 - Number of researchers (in full time equivalents)
 - Gross R&D expenditure as a percentage of GDP
 - Innovation expenditure as a percentage of GDP
 - Employment in knowledge-intensive activities as a percentage of total employment
 - Enterprises with innovation activity as a percentage of total enterprises
 - Enterprises with innovation activity in the Core NACE Codes as a percentage of total enterprises
- For the priority niche areas, the same indicators at the level of the relevant NACE Code/s will be used. In addition, the platforms to be set up may identify additional/improved indicators to be used.

Our self-assessment

Driving economic change through smart specialisation/RIS3

—•— S informal assessment - Malta



Summary and next steps



Finalisation of the RIS3 requires:

- Validation by the public sector of the identified niche areas and pillars for action.
- Identifying additional milestones and indicators towards a robust monitoring and evaluation system at priority niche area level.
- Consolidation of the National R&I Strategy to reflect the outcomes of smart specialisation and preparation of a short-term action plan.
- Public consultation.
- Further information exchange through bilateral meetings at high level to pave the way for eventual political approval.

Questions for discussion with our critical friends – 1 MALTA:



- **What relationship do you see between your smart specialisation strategy and your national research and/or innovation strategy?**

Background:

We would like to explore the following issues with our critical friends: Do the smart specialisation strategy and the national research and innovation strategy serve complementary objectives? Is one dependent on the other? Are there areas of overlap between the two? In what respects do they not overlap? Do you plan to have a single strategy incorporating both or separate documents and why?

Questions for discussion with our critical friends – 2 MALTA:



- **Do you face challenges in data availability? How do you plan to overcome them without jeopardising the RIS3 objectives?**

Background:

Limited data and challenges of data interpretation in small contexts make it difficult to use as a basis for setting priorities. We have sought to overcome this through extensive consultations with stakeholders to provide insights which data cannot provide. There is a risk of personal bias in this approach. We would like to hear whether other countries/regions have experienced similar challenges and how they have sought to overcome them.

Questions for discussion with our critical friends – 3 MALTA:

- **How do you ensure follow up and ownership of the RIS3 at the implementation level, especially by the private sector?**

Background:

The RIS3 should provide a common orientation for collective efforts by both the private, public and higher education sectors. We believe that the consultations undertaken and remaining consultations planned will pave the way for greater ownership at the implementation stage. However we would like to understand how other regions/countries foresee the involvement the public, higher education and private sector in implementing the RIS3? For instance are dedicated committees planned or set up? Do they face any challenges in this regard?

Questions for discussion with our critical friends -4 MALTA:

- **How do you build in flexibility to respond to changing circumstances?**

Background:

The importance of flexibility to respond to changing circumstances and emerging opportunities has been a recurring point which emerged from the majority of consultations undertaken. There is no doubt about its importance, especially in a context so dynamic as innovation. We would like to understand from other regions/ countries how they plan to incorporate flexibility in the RIS - how will 'changing circumstances' and 'emerging priorities' be identified and what mechanisms/processes have they set in place to ensure that the RIS reflects these?

Questions for discussion with our critical friends -5 MALTA:

- **How do you plan to address the monitoring aspect of the smart specialisation strategy?**

Background:

The saying goes that “if you cannot monitor it, you cannot manage it”. However there are several issues to think about in this regard: Are you designing new monitoring methods (such as indicators) in a top-down manner? Do you plan to use existing indicators? The former approach should result in tailored indicators which are surely fit for purpose, but will require additional resource capacity to develop and implement. The latter approach would ease the preparatory burden but the indicator may perhaps be too general. We would appreciate the feedback of our critical friends in this regard.

Thank you