## **BULGARIA**

## **Towards a RIS3 strategy**







Stakeholders Outward Looking

Engagement 201



## Questions we would like to discuss with our MS partners:

- Is the Entrepreneurial Discovery Process visible and integrated?
- Is presented second draft of Bulgarian RIS 3 focused?
- Is the connection between challenges and RIS3 pillars clear enough?
- Is the Action plan for completing the Thematic ex-ante conditionality well structured?

## Advantages and Challenges of Bulgaria as regards RIS 3

#### **Advantages**

- Macro-economic stability and favorable tax conditions
- Traditions in basic research fields
- High share of university graduates
- Qualified researchers in physics, chemistry, biology, computer science and biotechnologies
- Critical mass of fast-growing enterprises in specific sectors
- Good overall framework for staring new business

#### **Key Challenges**

- Low labor productivity
- Insufficient share of high added value exports
- High level of resource inefficiency
- Critical demographic situation
- Inadequate volume of domestic and foreign capital investments
- Weak and irregular relationships between academia and business community
- Substantial level of centralization

### Looking Beyond the Boundaries

- An assessment of the position of the innovation system of Bulgaria conducted using the comparative analysis method and multi-country indices
- Analyses were conducted on export specialization, on regional aspect of specialization, on human and scientific potential
- Used the advice and consultation and international support of the World Bank
- World Bank proposed country case studies (Israel, UK, Czech Republic and others)
- Bilateral cooperation (Netherlands, Poland, Finland and others)
- Measures envisaged for internationalization in the OPs and bilateral cooperation, international programs, clusters and umbrellas absorption of ideas and knowledge

## **DAVOS** Global competitiveness report GII **EU** Innovation **Scoreboard Innovation** system -Bulgaria

#### **Position in international rankings**

The innovation system is insufficiently externally-oriented and needs accelerated and open development with clear themes of specialization.

#### Place-Based Dimension of the RIS3

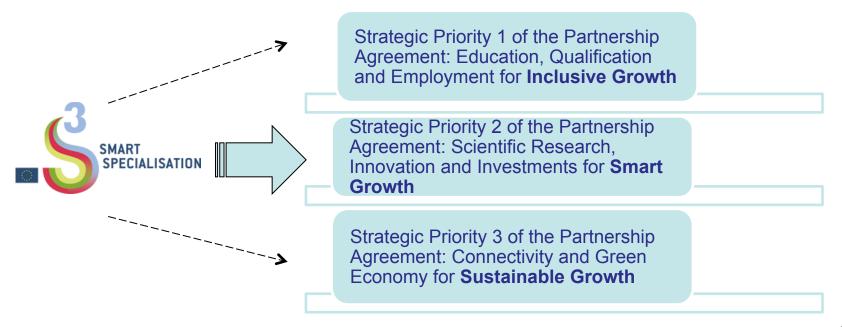


#### Strategic Vision

Till 2020 Bulgaria will pass from the group of "modest innovators" to the "moderate innovators" through:

**Objective 1:** Focus on innovation potential in the identified thematic areas (for creation and development of new technologies, leading to competitive advantages and increase of the added value of domestic products and services)

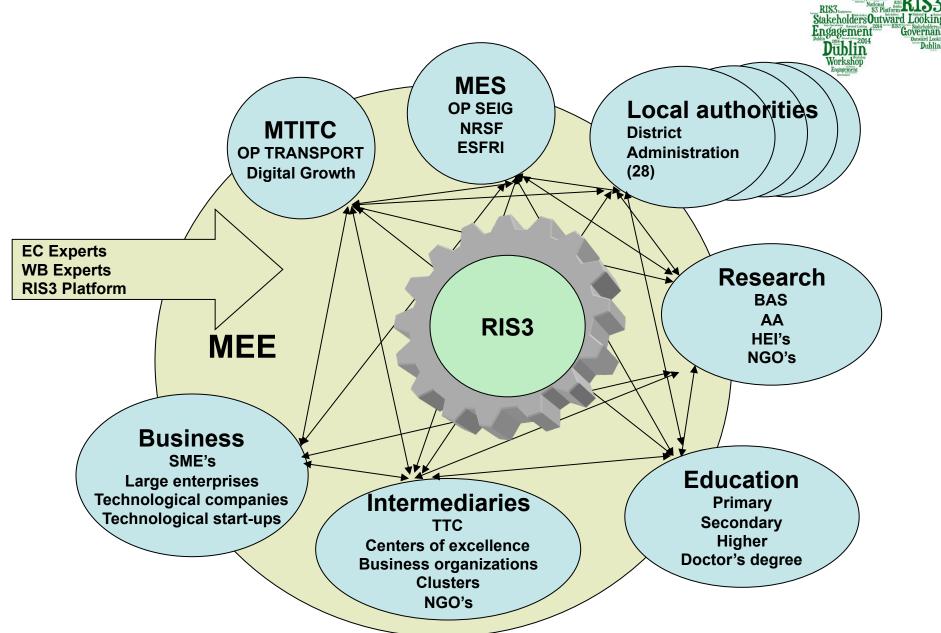
Objective 2: Support innovation for resource efficiency and ICT applications in enterprises throughout the industry (for accelerated absorption of technologies).





## **Entrepreneurial discovery process**

#### **RIS3 STAKEHOLDERS**







- Kick of Conference held in the National Palace of Culture May 2012
- Formation of National RIS3 governing body National Innovation Council, involving representatives from all stakeholders /quadruple helix/ and chaired by the Minister of Economy and Energy
- Working Group experts from relevant ministries and representatives of the Council on Development of the country.
- In July 2012 a partnership agreement was signed with the World Bank for preparation of a comprehensive analytical report with recommendations as part of the future RIS3
- First draft of the Partnership Agreement 2014-2020 submitted to EC with references to RIS3
- Elaborated first draft of the strategy and achieved wide consensus on the vision and priorities set at national level
- On-going synchronization with the OP programming
- After consultation and recommendations received from DG Regio:
   RIS3 second draft prepared under the guidance of experts, assessed by DG Regio first round of consultations within the WG ended on 8 30.06.2014

## Entrepreneurial dynamics (2)

The entrepreneurial discovery is a process of systematically scanning for technological, political, and regulatory, social, and demographic changes to discover opportunities to produce new goods and services. Entrepreneurs are the mechanism by which our economy turns demand into supply our role is to provide favorable environment and support for it.

Permanent communications platform has been provided on the site of MEE: <a href="http://www.mi.government.bg/bg/themes/inovacionna-strategiya-za-inteligentna-specializaciya-1193-287.html">http://www.mi.government.bg/bg/themes/inovacionna-strategiya-za-inteligentna-specializaciya-1193-287.html</a> through e-mail <a href="mailto:innopolicy@mee.government.bg">innopolicy@mee.government.bg</a>

which is open for dialog and consultations among the stakeholders. From 2012 till now following events have been organized:

- ➤ 7 Focus Groups ICT, Pharmaceutics, Mechatronics, Food Processing Industry, Innovation ecosystem, Leading innovative projects, Creative Industries;
- ➤ 11 Thematic Meetings;
- > Regular Meetings of the Working group and individual meetings with the working group
- ➤ 13 Partnership Meetings with the World Bank
- ➤ 3 Sessions of the Thematic Working Group on OP "Innovation and Competitiveness" and 7 Sessions of the TWG on OP "Education and Science for Smart Growth"
- ➤ 3 Meetings of the National Innovation Council Steering Committee pursuant to an Order of the Minister RD-16-1567/07.11.2013
- > 5 partnership meetings with representatives of the European Commission

The major difficulty is the political stability, which can only guarantee full and constant political support for the innovation policy.



## **RIS3 focus**

#### Place-based dimension of the RIS3

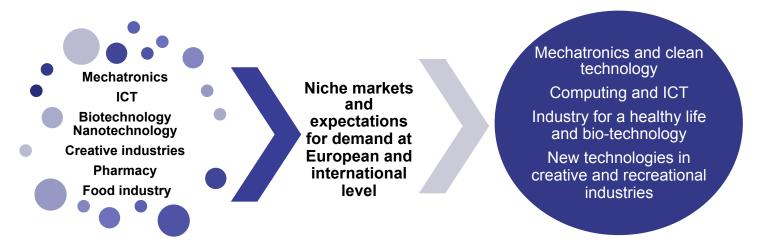
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Cross analysis to identify potential areas for intensive technological innovatic development (specialization)

#### Process of identification of technology areas 82 economic activities and services 82 economic activities and services Quantitative Quality analysis analysis 33 economic 31 economic Activities and **Activities and** services services Cross analysis 21 economic **Activities and services TECHNOLOGICAL AREAS** Scientific potential Business suggestions Mechatronics Creative industries ICT Pharmacy Bio-technologies Food-processing industry Nanotechnologies · Focus Groups Thematic meetings Regular meetings of the WG · OP committees and events Sessions of the National Innovation Council Conferences, Partnership meetings with representatives of the EC and other MS Entrepreneurial Discovery Process (incl. WB)

### Technological areas

The cross-analysis and the e.d.p. are a starting point for identifying technology areas for smart specialization. The logic of identification is the finding of the intersection between the strong areas of scientific and technological development and entrepreneurial activity. The scientific areas are in line with National Strategy for Promotion of Scientific Research 2020. The areas received as a result should be seen through the prism of expectations for niche markets and market potential (EU and globally):



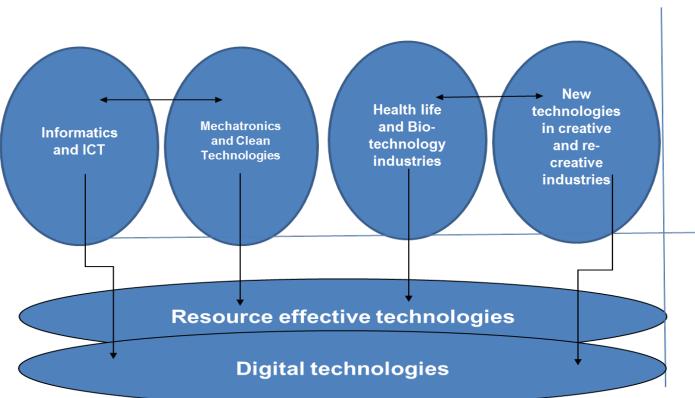




## Addressing challenges

#### **RIS3 Pillars**

#### **BULGARIA**



The following KETs are reflected in the process of identification of the main priority areas - pillars in the RIS3: industrial biotechnology, micro-nano technologies, nano technologies and advanced materials.

**Engagement** 

### Digital Growth Priorities

- The strategic policy framework for digital growth is outlined in the National Broadband Access Strategy, the E-Governance Strategy and the Digital Bulgaria Programme, which are in line with the Digital Agenda for Europe. The measures planned in RIS3 have to contribute to the implementation of these strategic planning documents.
- ■The draft National NGA plan is ready for submission to the Council of Ministers and is published on: <a href="http://www.mtitc.government.bg/upload/docs/">http://www.mtitc.government.bg/upload/docs/</a>
  Bulgarian Plan for NGA 2013 Final.pdf.
- ■A SWOT analysis consistent with Scoreboard of the Digital Agenda for Europe is included in RIS3. Budgeting and prioritisation of actions on its basis is in progress.
- •An analysis of balancing support for demand and supply of ICT is made by MTITC and is published on: <a href="http://www.mtitc.government.bg/upload/docs/">http://www.mtitc.government.bg/upload/docs/</a>
  Analis shirokolentov internet 2014 02 06.pdf.
- Assessment of needs to reinforce ICT capacity-building is made and appropriate measures to address the weaknesses are to be defined.
- ■The Indicators to measure progress of interventions in the field of digital literacy, skills, e-inclusion, e-accessibility, and e-health are aligned with existing relevant national strategies. Effects will be measured by the set of DAE indicators.



#### Sub-national level

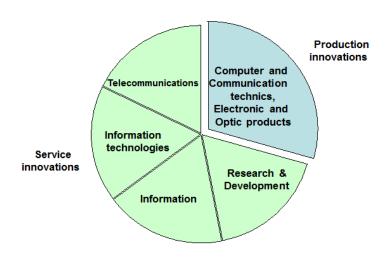
- ■The strategic policies for digital growth are set on a national level.
- •Where applicable regional and local breakdown is included, e.g. regarding broadband coverage and penetration.

### Identified areas of specialization

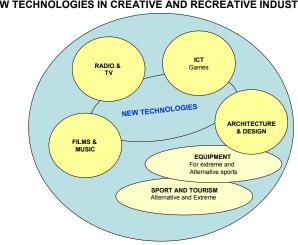
Stakeholders Outward Looking Engagement in

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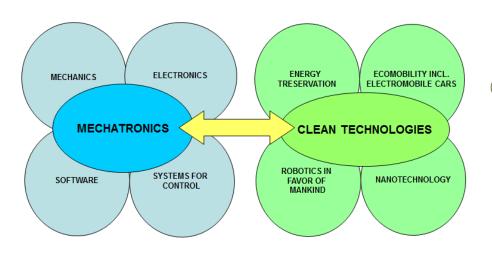
Technology area "ICT and Informatics"



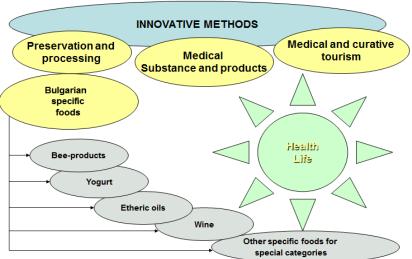
**NEW TECHNOLOGIES IN CREATIVE AND RECREATIVE INDUSTRIES** 



#### MECHATRONICS AND CLEAN TECHNOLOGIES



#### HEALTH LIFE AND BIOTECHNOLOGY INDUSTRIES



## Cooperation Process and International Activities (1)



- In 2012 Bulgaria dedicated 3% of GBAORD to transnational cooperation, of which:
  - 0,3% to Joint programming, Art.185, ERA Net plus, COST, EUREKA, etc.
  - 0,2% to bilateral and multilateral initiatives
- 7FP BG share of participation 0,6%
  - BG received of total EC contribution 0,3%
- 7FP funding is EUR 13 per inhabitant (EU average EUR 72 per capita)
- 7FP funding 0,1% of GERD (EU average 3%)
- Joint programming initiatives BG participates in 1 of the 10 on-going initiatives – Cultural heritage and global change (Involved in 25 Joint calls)
- Article 185 initiatives (Joint programming) involved in 2 programmes
- Horizon 2020 involved already in 2 of the 4 existing initiatives
- Participation in a total of 20 ERA-NETs, of which 8 still currently running
- Participation in 1 ERA-NET Plus actions in area with high EU added value

## Cooperation Process and International Activities (2)



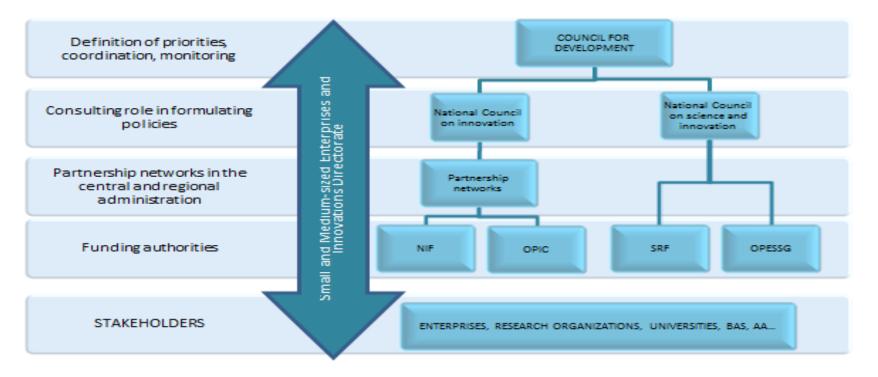
- Active work of the Agency for SMEs, including participation of enterprises and their organizations in international events and forums/fairs, trade and commercial missions abroad, training and information events home and abroad, access to information and other resources
- The Agency is a partner on the Bulgarian side in project Smarter Cluster Policies for South East Europe (ClusterPoliSEE) under OP for transnational cooperation in South-East Europe
- The Agency is developing an export portal (<u>www.export.government.bg</u>) and supporting the process of export analysis and strategy development on national and sectorial level
- Enterprise Europe Network
- Joint Technology Initiative (3 enterprises)
- 41 bilateral cooperation agreements of the Bulgarian Academy of Sciences
- Expecting ESA membership
- Participation in EU Strategy for the Danube Region (EUSDR) by the end 2013 six scientific clusters launched, for example in energy and sustainability research
- Black Sea Cooperation

#### Governance

The institutional environment is the instrument to ensuring the sustainability and predictability of innovation and research policies.

RISS PRICE Review National Stakeholders Outward Looking Dublin Workshop Engagement

- Council for development tackling political issues
- Partnership networks towards building of effective partnership between the public and the private sector
- Active role of **SME and Innovation Directorate** to ensure better coordination and partnership among all actors within innovation processes



### Budget, Monitoring and Evaluation



**The financial model** is consistent with the objective that Bulgaria has set in the 2020 Strategy and the National Reform Program in respect of expenditures on R & D: reaching 1.5% of GDP by 2020. It is elaborated as a simulation model for reaching the target of 1.5% of GDP as annual distribution of the increase of public and private expenditures and EU funds dedicated to R&D.

#### **Measuring the Progress**

- Envisaged are: an ongoing monitoring, an Interim (external assessment every 2 years) and final evaluation
- Ministry of Economy and Energy prepares an Annual report which is to be discussed and adopted by the Innovation Council
- > The annual report contains:
- Comparative analysis of the national innovation system of Bulgaria with the innovation systems of the EU member-states;
- Report on the implementation of the measures laid down in the Strategy;
- Evaluation of the innovation policy in Bulgaria and proposals for policy change, if necessary.

Monitoring and evaluation of the overall performance of the strategy relies on the use of Innovation Union Scoreboard indicators

With regard to **Objective 1** sector-specific indicators for development are used.

With regard to **Objective 2** will be used the approach of indicators Resource Efficiency Scoreboard and Digital Agenda Scoreboard



### **Action Plan**

#### **Action Plan**

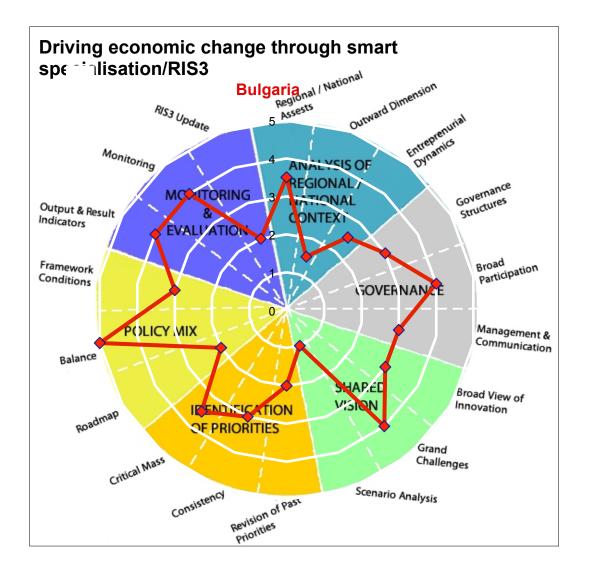


Action Plan until June 2015 includes 2 main objectives: further strengthening the e.d.p. and the governance mechanism (SMEs and Innovation Directorate in the Ministry of Economy and Energy remains the coordinating structure for the implementation of RIS3) Next steps:

- Peer review feedback; additional work with EU TA experts until end of July 2014; close cooperation and synergies with OPIC and OPESSG
- ▶ 4 events according to the thematic areas; 6 regional partnership meetings
- > 09.2014 adoption of RIS3 at National level, submission to the Commission, continuing negotiations on the action plan
- 11.2014 Entrepreneurship 2020 Bulgaria (project)
- > 12.2014 National program (project) action to promote production and accelerated uptake of electric vehicles
- 01.2015 Annual Meeting of the Scientific Community and Entrepreneurs

Challenges are: to build institutional capacity and to ensure sustainability; to launch two communication platforms: inter-institutional and involving regional actors and entrepreneurs and make them effective

#### **Self-assessment**





Source: S3 Platform/EURADA



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# Question 1: Is the Entrepreneurial Discovery Process visible and integrated?

- Why: It is a basic requirement of RIS3 Guide and remark of the EC and the consultants
- **What has been done**: The process of consultations with the stakeholders is described in details
  - All suggestions received are generalized, systemized and integrated in RIS3
  - The information about events and participants is available
- *What worked*: The process is started together with the preparing of the first RIS3 draft and is described in details in the second one
- What did not work: The information was not clearly included in the first RIS3 draft

## Question 2: Is the second draft of Bulgarian RIS 3 focused?



- Why: To answer the main remarks of the consultants and the EC
- What has been done:
- 1) The recommendations of the consultants for the strategy structuring have been taken into consideration
- 2) Elaborated are:
  - quantitative analysis identified are leading economic activities and services,
  - qualitative analysis identified are the public and private investments in economic activities and services,
  - cross analysis identified are economic activities and services with potential for accelerated technological and innovative development a base for identifying technological areas (RIS3 pillars).
- **What worked**: Organized consultation process "bottom-up" and "top-down" to achieve consent on RIS3 focus
- **What did not work**: The process is on-going and will be implemented in accordance with the Action Plan

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# Question 3: Is the connection between challenges and RIS3 pillars clear enough?

- Why: It is one of the remarks of the EC
- What has been done: The identified areas correspond to the identified challenges in the analytic part
- What worked: A consensus on main challenges and their solving has been achieved
- What did not work: New challenges emerge that are not replicated





• **Why:** The availability of Action plan is a requirement as per Regulation 1303/2013 Objectives, responsible institutions, deadlines are fixed

#### ex-ante conditionality 1.1

- Building governance mechanism for implementation of RIS3 MEE is responsible, deadline -November 2014
- Activating the process "Entrepreneurial Discovery Process" MEE is responsible, deadline March 2015
  - Meetings with representatives of regional authorities, responsible MEE, deadline January 2015;
  - Thematic meetings with entrepreneurs and researchers on defined thematic areas MEE is responsible, deadline- Marc h 2015;

#### ex-ante conditionality 1.2

- Updating of National Roadmap for scientific infrastructure in accordance with RIS3, MES is responsible, Deadline September 2014
  - What has been done: Objectives, responsible institutions and deadline are defined
  - *What worked*: A partnership network creation has started ( see the scheme)
  - What did not work: It is still not finalized and under discussion