



# ***The Romanian RDI Strategy and Plan 2007-2013 → 2014-2020***

Tudor Prisecaru  
Secretary of State

Bucharest, 4 Oct. 2013

- **Completion of the National RD&I Strategy and the National RD&I Plan 2007-2013**
- **Towards the National RD&I Strategy 2014-2020 and the National RD&I Plan 2014-2020**

**National RD&I Strategy** 2007-2013 - has been prepared through a foresight approach

**Vision** (remember):

The RD&I system is the engine for the development of the Romanian knowledge society, with the capacity to sustain performance through innovation in all areas, contributing to the welfare of the citizens, while reaching scientific excellence recognized at international level.

**Main characteristics:**

- RD&I becomes a **source** of **economic** and **social progress**;
- National Strategy sets the **organisation framework of the RD&I system**, and specifies the **thematic priorities** where the public investments will be concentrated;
- National Strategy states the principles for the **organisation of policy-making** and **policy implementation**;
- National Strategy guides the **catching-up process** with respect to EU member states.

**Implementation – National RD&I Plan (six programs):**

- **Human Resources**: increase the number of researchers and improve their professional performances;
- **Capacities**: develop research infrastructure and pan- European and international cooperation;
- **Ideas**: promote excellence in research and international visibility;
- **Partnerships in priority areas**: increase the R&D competitiveness resulting in innovative technologies, products and services for solving complex problems;
- **Innovation**: support pre- competitive and competitive research in innovative companies;
- **Supporting the institutional performance**: to support the national R&D institutes.

**International assessments:** "World Bank operational review" - May 2012, "Mid Term evaluation report of the National Strategy and National RD&I Plan 2007-2013" by *Technopolis Group* - December 2011) concluded on the existence of **too ambitious goals with respect to the resources** (15,000 MROL planned vs. 4,000 MROL payments).

National Plan (accumulated values 2007-2013):

- **Budget** 4,000 MROL (approx. 1,000 M€); Additional **Structural Funds**: approx. 800 M€.

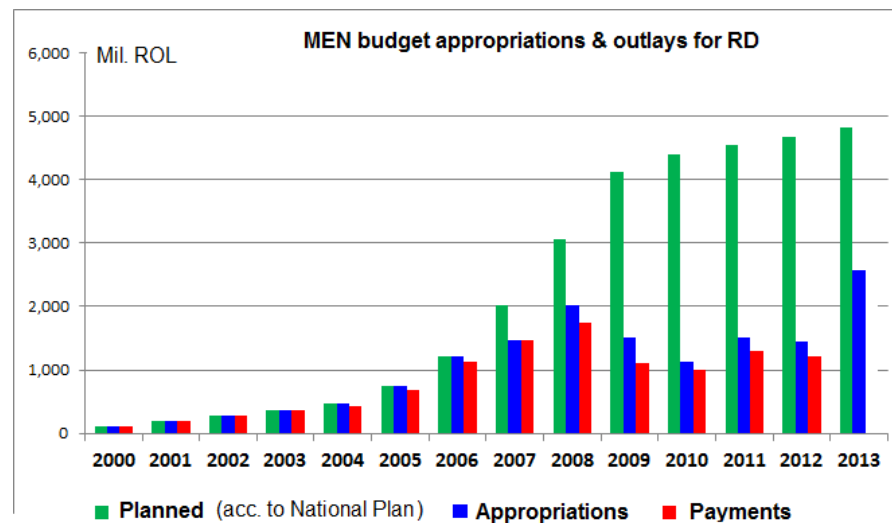
The results of the National RD&I Plan 2007-2013 were **acceptable**, but **below expectations**.

2007-2009: **strong growth** of Gross Expenditure R&D – GERD (from public sources) correlated to:

- Increase of the Romanian **scientific articles** and **journals** - both in **number** and **visibility**.
- Significant strengthen of **small scale infrastructures**: ~150 research laboratories in universities and research institutes.

**Crisis (2009): Not sustainable** financial growth!

The fall in RD budget was **larger** than the fall in GDP, leading to a decrease in the ratio of RD budget to GDP.



The dynamics of public RD budget: a maximum in 2008, a minimum in 2010, and recovering the level of 2008 in 2013.

Romania achieved a modest RD intensity in EU

(Gross Expenditure R&D GERD ~ 0.5% of GDP, Business Expenditure R&D BERD ~ 0.17% of GDP)

## National RD&I Strategy & Plan 2007-2013 - achievements

**80%** of the funds allocated through **grant competition** with **national and international evaluators!**

**STRENGTH:** promote competition among applicants

**WEAKNESS:** uncorrelated bottom-up proposals

### Re-stating priorities in crisis:

**Human resources** program: ~1400 docs and post-docs;

System **de-fragmentation**:

- Orientation to large scale investments in pan-European facilities:

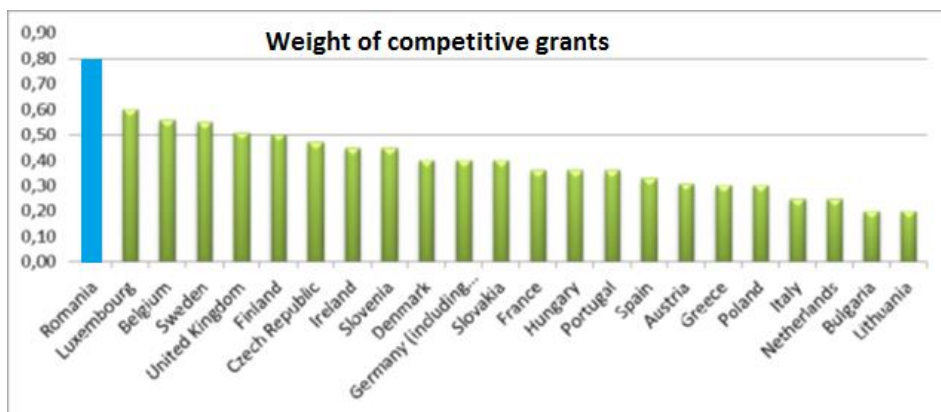
1. **Extreme Light Infrastructure**;

2. **Centre for Advanced Studies “Danube Delta-Black Sea”**;

3. Other **seven** public large scale facilities (on average **20M€UR** each).

- All National R&D Institutes are (since March 2013) under the coordination of the Ministry of Education, aiming at a better coordination of missions and expertise; International evaluation to be completed this year.

Focus on **innovation** for **social & economic added value**: **Innovation programme** with dedicated tools for economic operators (e.g. **innovation vouchers**).



## Structural funds ↔ National RD&I Plan Synergy:

- ❑ Sectoral operational program “Increase Economic Competitiveness” (Axis 2): **~800 M€** (112%)
- ❑ Sectoral operational program “Human Resources Development” (Axis 1): **~350 M€**

The operations belonging to the Priority Axis 2 – Increasing Economic Competitiveness – were designed to **complement** the measures of the National RD&I Plan, e.g. **RD&I in enterprises**.

**Funds** channelled to the **private sector** by Axis 2 is **200 M€** (out of 800 M€)

- Almost half of the funds (94 M€UR) **support research and innovation activities** carried out by the RD departments in enterprises;
- One third of the funds (70 M€UR) to support investments in the development of the **research infrastructure in enterprises**;
- Approx. 15 M€UR to support the enterprises lacking RD departments or the required expertise to **acquire research services**;
- Approx. 20 M€UR invested in over 100 **innovative start-ups and spin-offs**;
- **Young innovative enterprises** (up to 6 years-experience) received up to 1 M€UR each, without request of co-financing from private entities.

**1 € structural funds** complemented by **1 € private funding!**

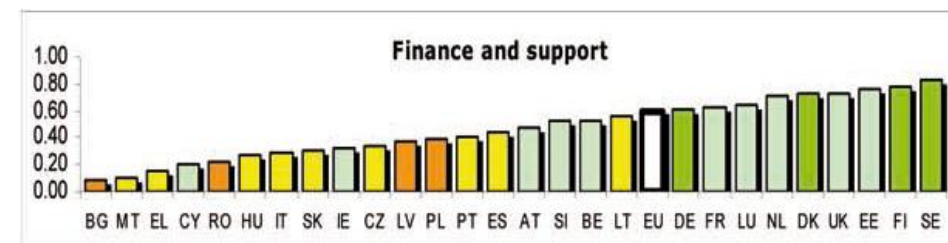
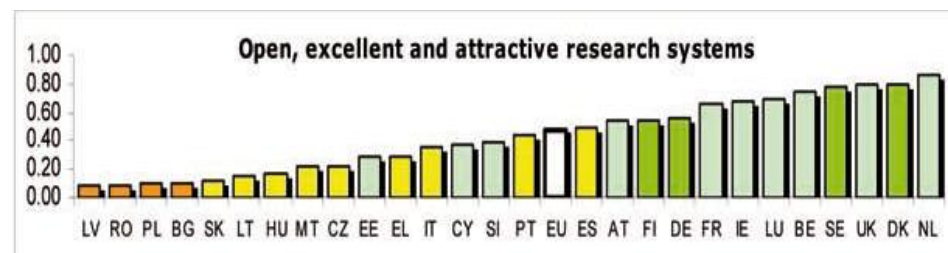
## National RD&I Strategy & Plan 2007-2013 → emerging challenges

Investments in R&D facilities provided **essential support** for updating research infrastructures in universities and national institutes...

... but **the overall quality and coherence** of the national RD system **still needs significant improvements**...

The **private sector** has a **modest contribution** to R&D activities – currently Romania has one of the lowest RD intensity in EU (GERD ~0.5% GDP, BERD ~0.17% of GDP).

**Solutions: Enhancement of the demand-driven policies** – implementation of additional fiscal incentives for RD 20% to +50%;



## Elaboration of the new RD&I Strategy 2014-2020

Romania is currently **updating** its 2020-vision by identifying the **internal needs** and taking into account the **strategy Europe 2020** and the **objectives** of the **Cohesion Policy**

The European framework available for the next programming interval:

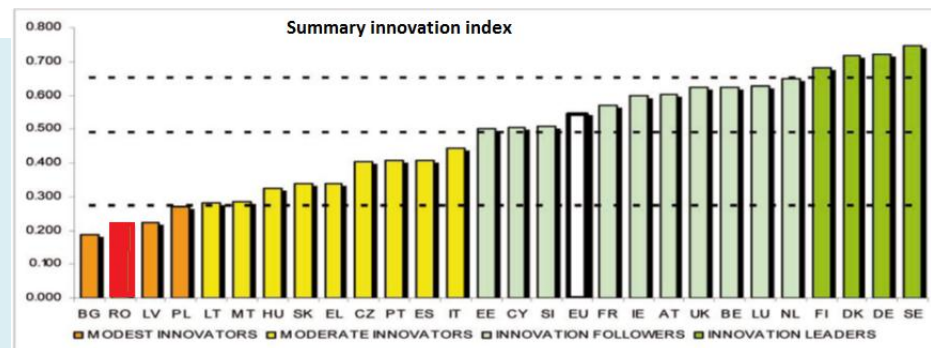
- ❑ **Europa 2020**: general objective of smart, sustainable and inclusive growth
- ❑ **Flagships** (Innovation Union, Digital Agenda for Europe, etc.) are stating the key role of innovation through research

Synergy among EU budgets 2014-2020

- ❑ **HORIZON 2020** (70 Bil.€UR) - the Framework Programme for Research and Innovation (European dimension, based on excellence and complementarity)
- ❑ **Cohesion Policy Funds** (60 Bil.€UR) – research, development, innovation, entrepreneurship (regional dimension, on bases of smart specialization, of the development of local capacity that generates comparative advantages)

Romania's **commitments** (vs. *Europe 2020*):

- Romania to meet **the current EU 27 average** on **Summary Innovation Index**.
- Romania to invest in research **~2 % of GDP** = 1% public + 1% business.





## Key EC recommendations

- ensure close links between research, innovation and industry
- connect the RDI Strategy with the economic development of the country
- prioritize** research and development activities that have the potential to attract private investment
- efficiently and extensively use the European Structural and Investment funds focused on smart specialization targets

## Key national challenges

- availability and predictability of necessary resources through multiannual planning
- define **strategic priorities**, as a premise for concerted set of public policies
- ensure a **critical mass** of motivated researchers
- enhance the effectiveness of **public-private partnerships**

## National consultation for shaping the RDI Strategy 2014-2020:

**Vision** oriented to innovation, based on three pillars:

1. Business firms are the promoters of innovation;
2. RD&I provide opportunity for talented people;
3. Significant progress in priority areas.

**Smart specialization** directions and priorities:

1. **Smart specializations**: Bio-economy, Information and Communication Technologies, Energy and Environment, Eco- Technologies.
2. Priorities of **national interest**: health, space and security, heritage and national identity.

## Towards the RDI Strategy 2014-2020:

### ***Capitalize on achievements, continuity***

1. Increase in research quality and visibility
2. Funding through grant competition
3. Improve human resource quality and performance

### ***Challenges to be addressed***

1. Smart specializations and research priorities to be assumed top-down, while problem solutions emerge bottom-up
2. Improve the coherence of RDI efforts, build critical mass
3. Breakthroughs in priority domains with social and economic impact

***Thank you  
for your attention***

**Bucharest, 4 Oct. 2013**