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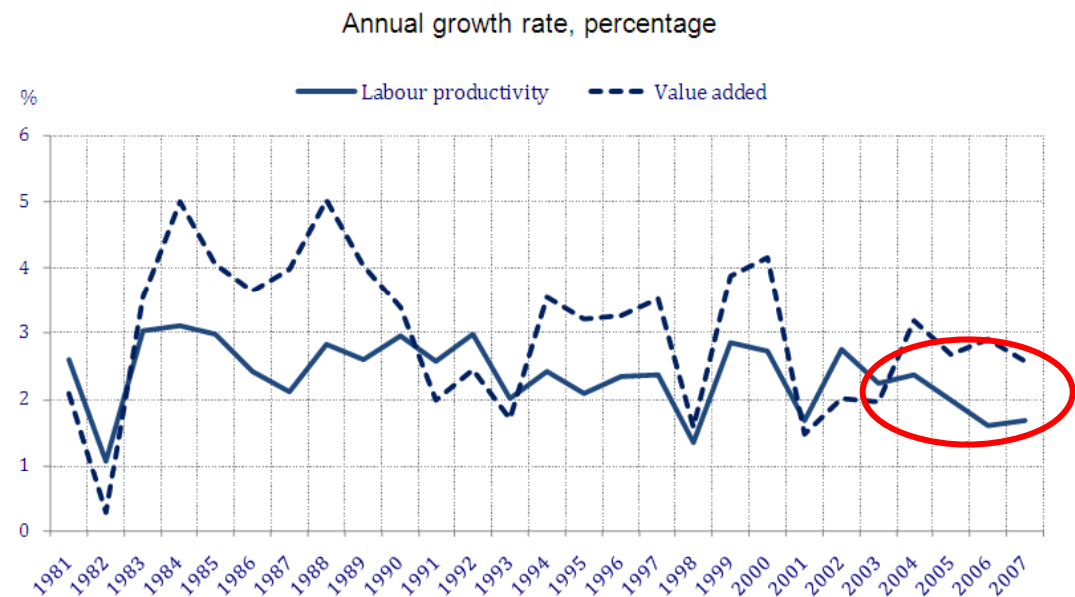
# Post-crisis innovation policy best practices and opportunities for their implementation in Russia

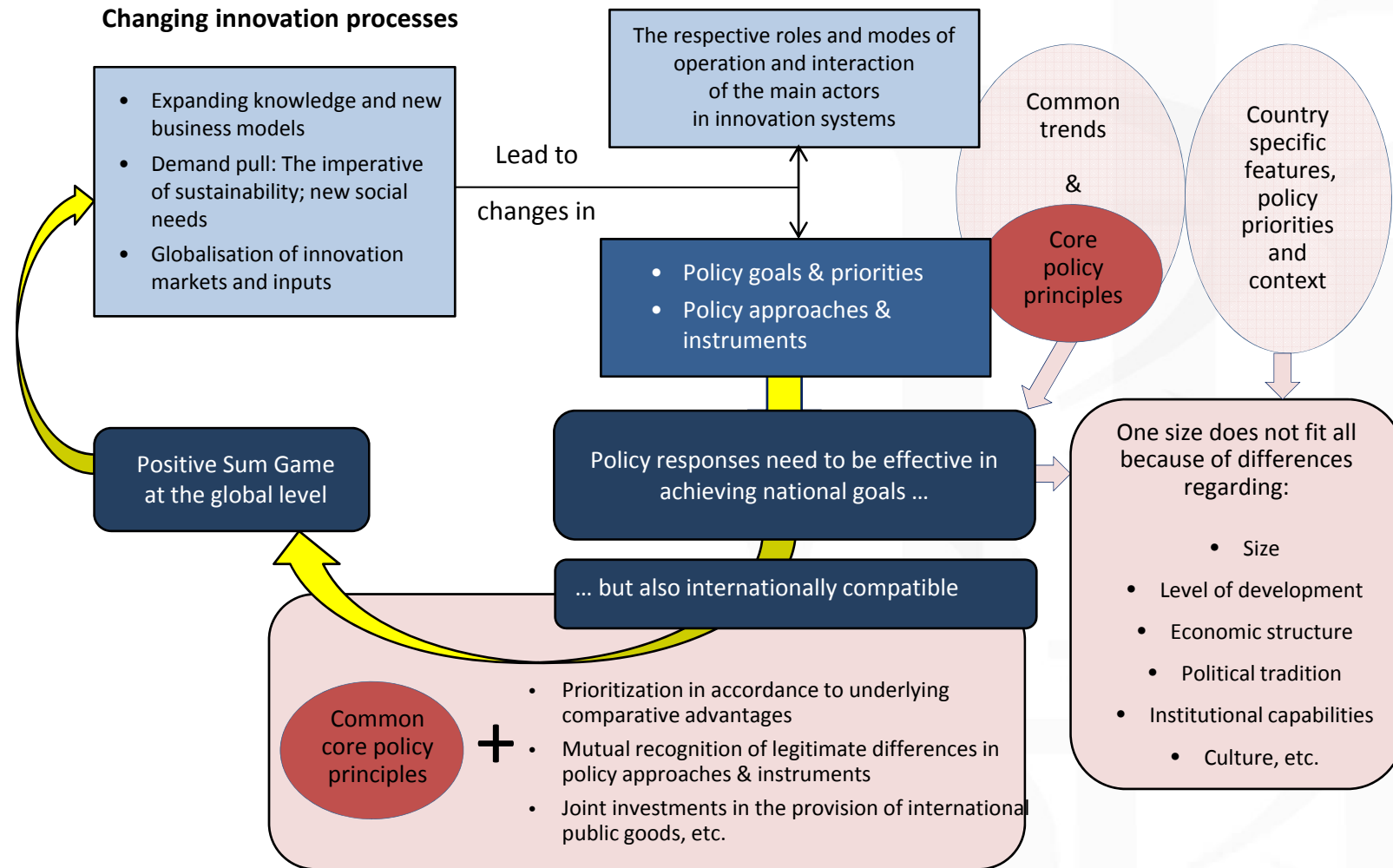
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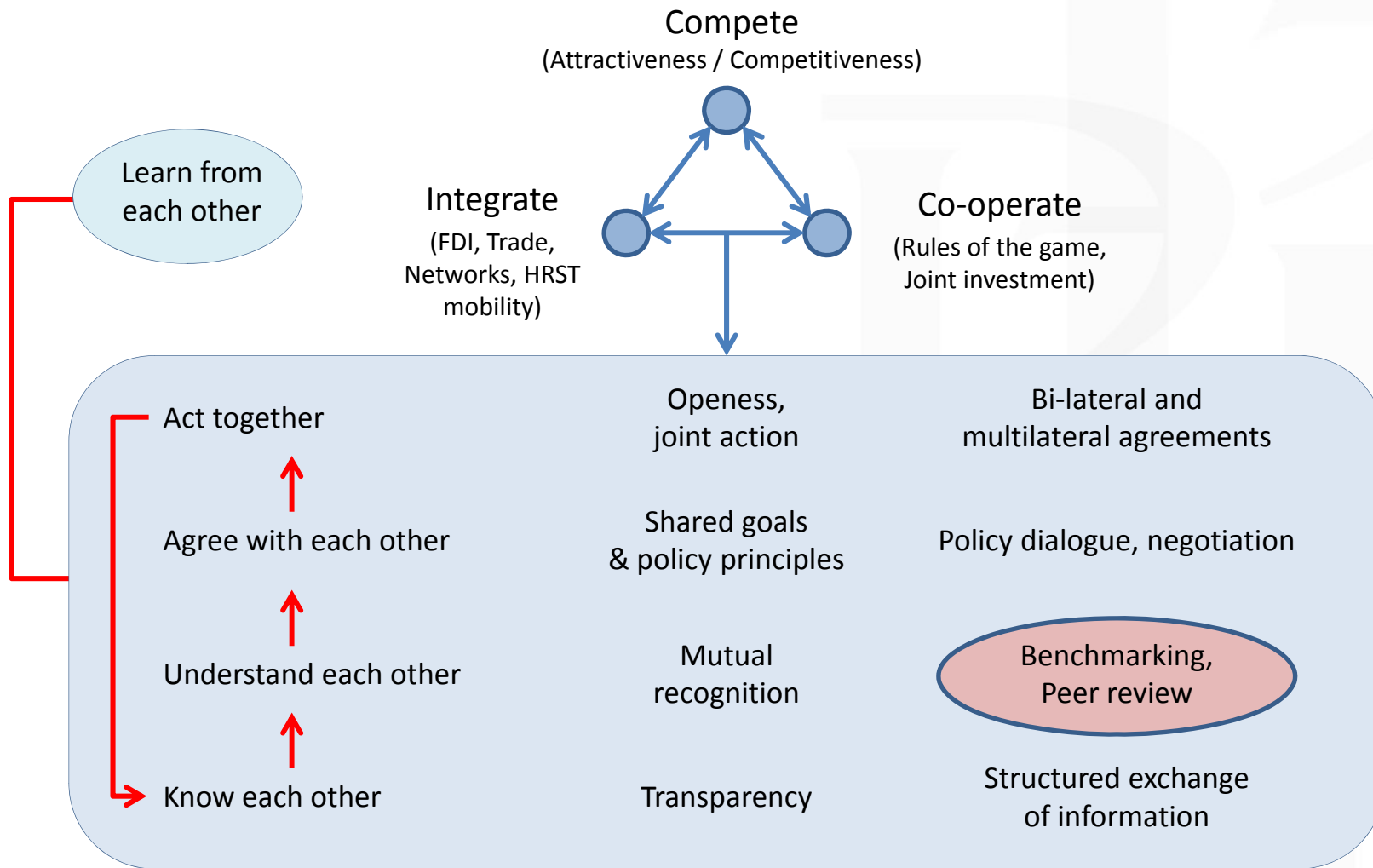
- **Before the crisis**, the innovation imperative was fully recognized in most OECD countries because of the need to revive stagnant productivity and to cope with new societal challenges (e.g. the OECD Ministerial mandated the preparation of an Innovation Strategy in Spring 2007).
- **The crisis** made innovation both more difficult and more necessary (many countries included support to related investment in recovery packages).
- **After the crisis**, new orientations of innovation policies reflect the need to increase efficiency (fiscal sustainability), to match better new demand patterns (e.g. green growth, aging population in high income countries, accelerated emergence of Asian and other economies, etc.), as well as lessons learned during two decades of experiments.

Labour productivity growth in the OECD area, 1981-2007

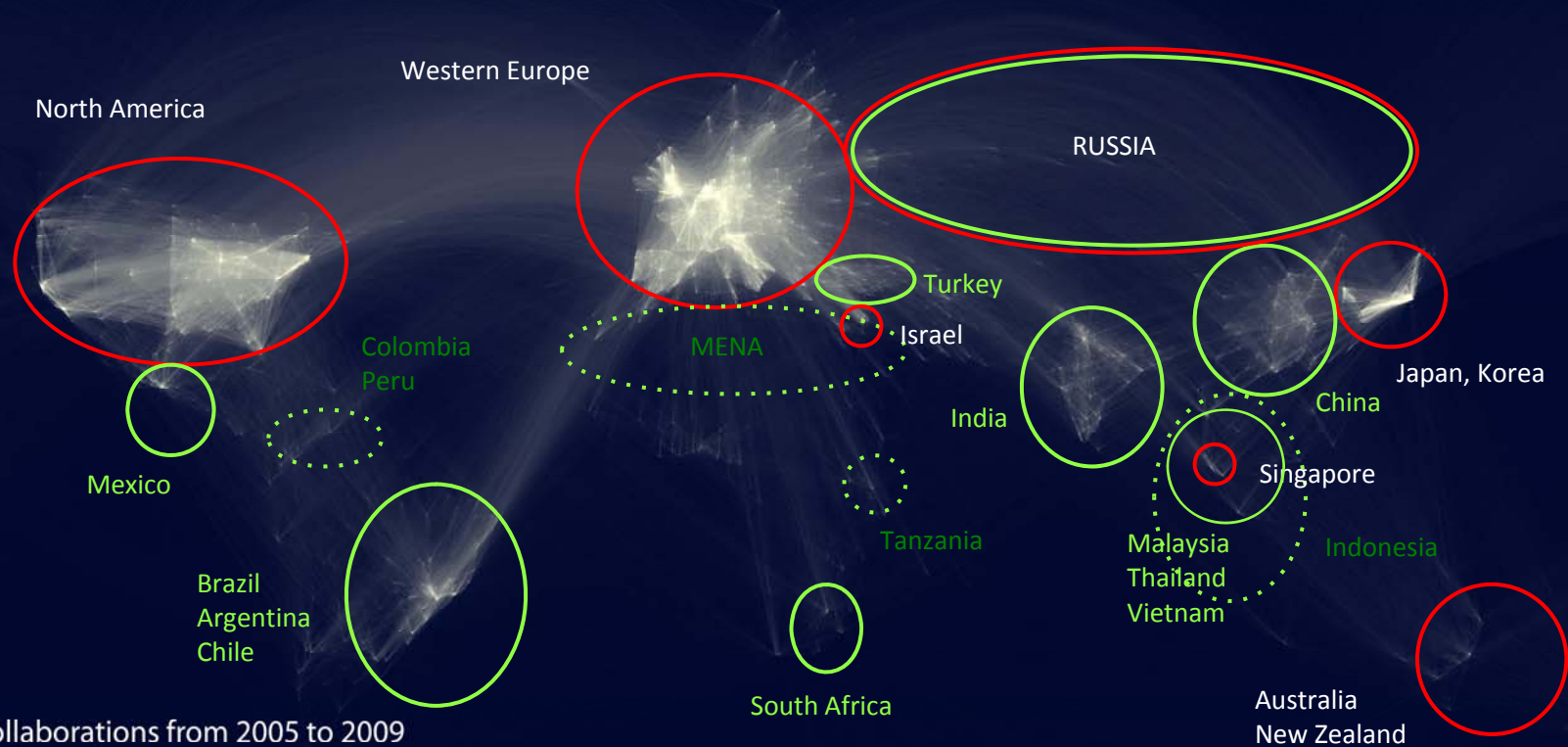




# International learning of best practices

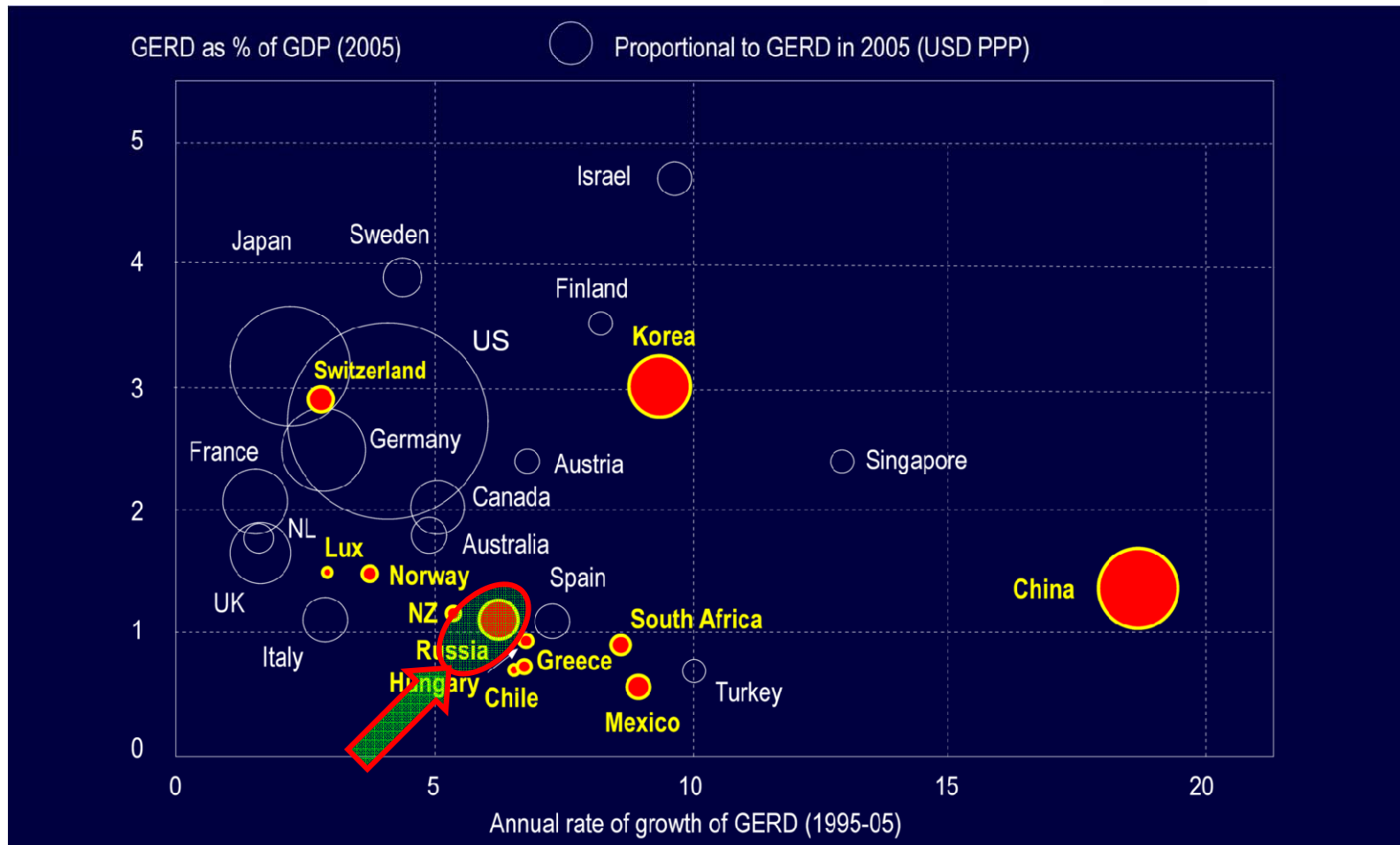


## Global innovation map: Highly developed, catching-up and other countries

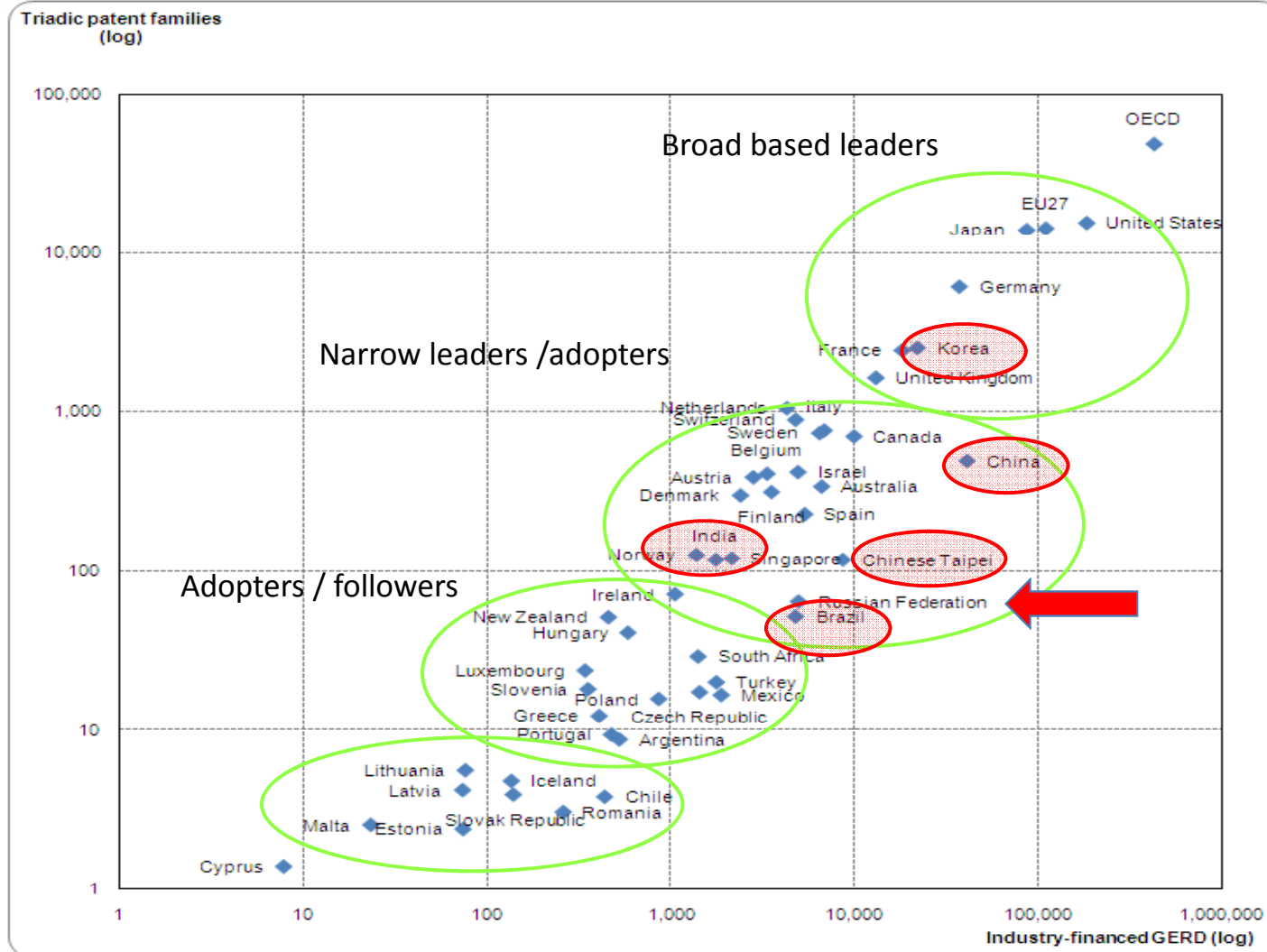


# A changing topography of innovation (1)

## Size, growth and intensity of R&D expenditures



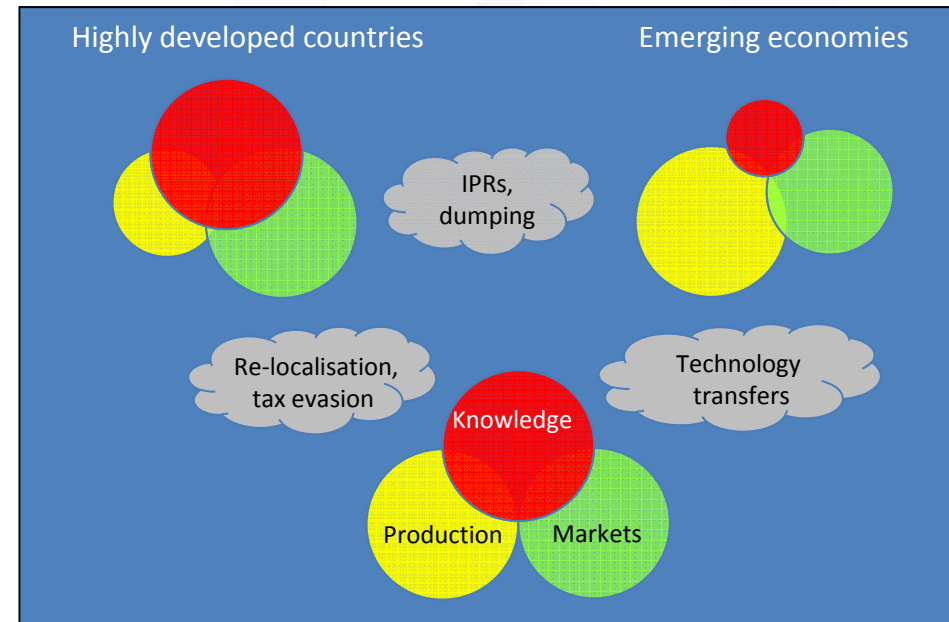
## A changing topography of innovation (2)



## The innovation agenda of highly developed and emerging countries is converging

- A growing number of highly developed countries adopt more ambitious innovation strategies.
- Economic development policy in countries as diverse as Brazil, China, Chile, Korea, Mexico, South Africa or Vietnam reflects the ambition to move toward innovation-driven growth.
- This increases the geographical scope for multidirectional (South-South and no more only North-South) international learning of best policy practices, but also creates:

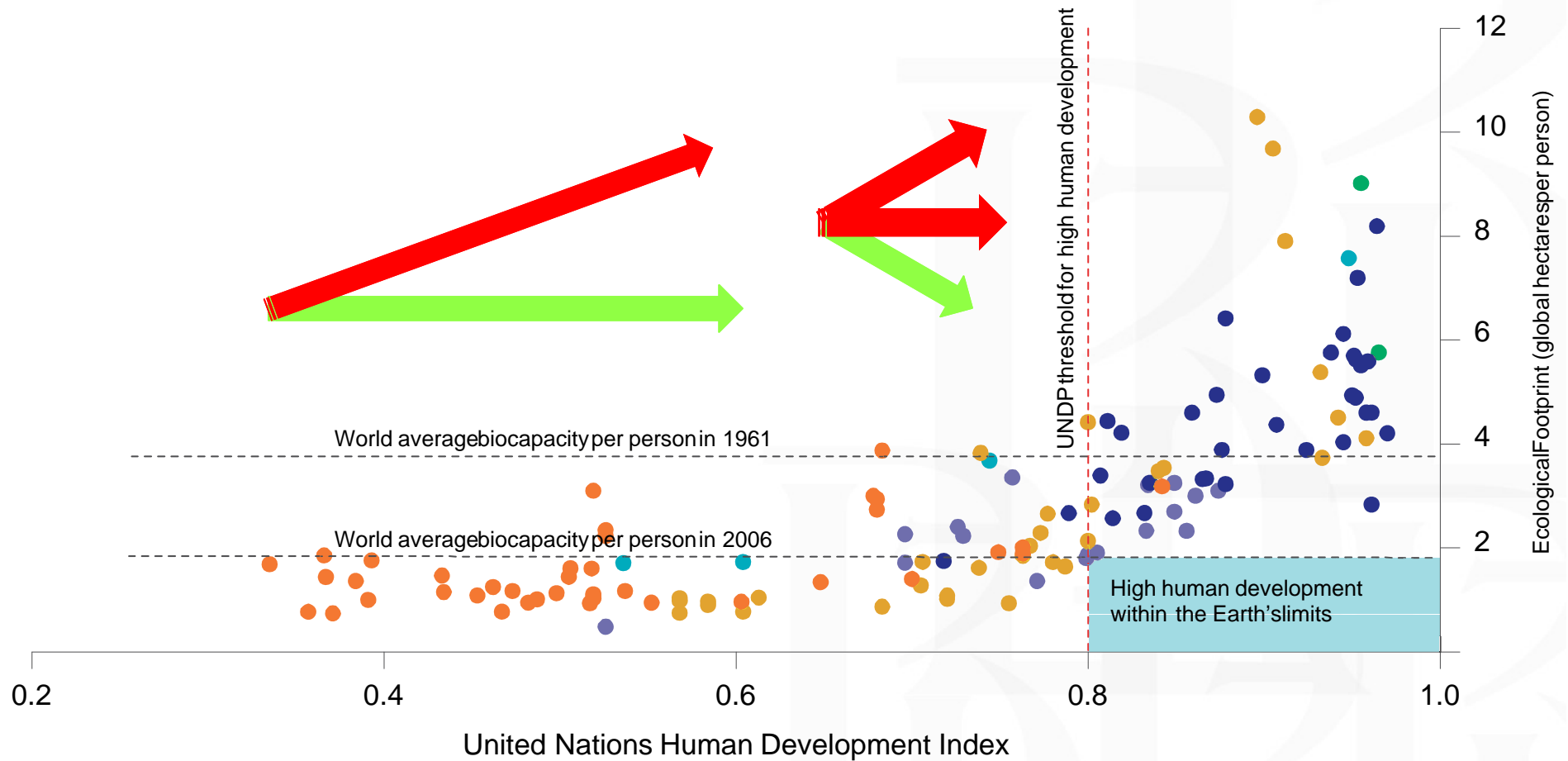
- ✓ Frictions of convergence among countries: around IPRs, competition for talents, standards, etc.
- ✓ As well as tensions between open innovation strategies of MNEs and governments' growth strategies.





### **But the marginalization of low-income countries and low-skills in high-income countries is a risk**

- Increasing returns on investment in knowledge together with spatial concentration of their spillovers may lead to geographical concentration of innovative activities.
- Youngest populations are often located in areas with lower education and training capacities.
- Demand for low skills falls while global supply increases.
- Growth strategy of rich countries / individuals contrasts with survival strategy of poor countries / individuals.
- This creates conflicts of divergence within and among countries: immigration pressures, social unrest, insecurity, environmental damages (e.g. deforestation), counterfeiting and piracy, etc.
- In addressing the risk of an « innovation divide » issues such as « innovation and development », « social innovation », or « socially inclusive innovation policy » should receive more attention.

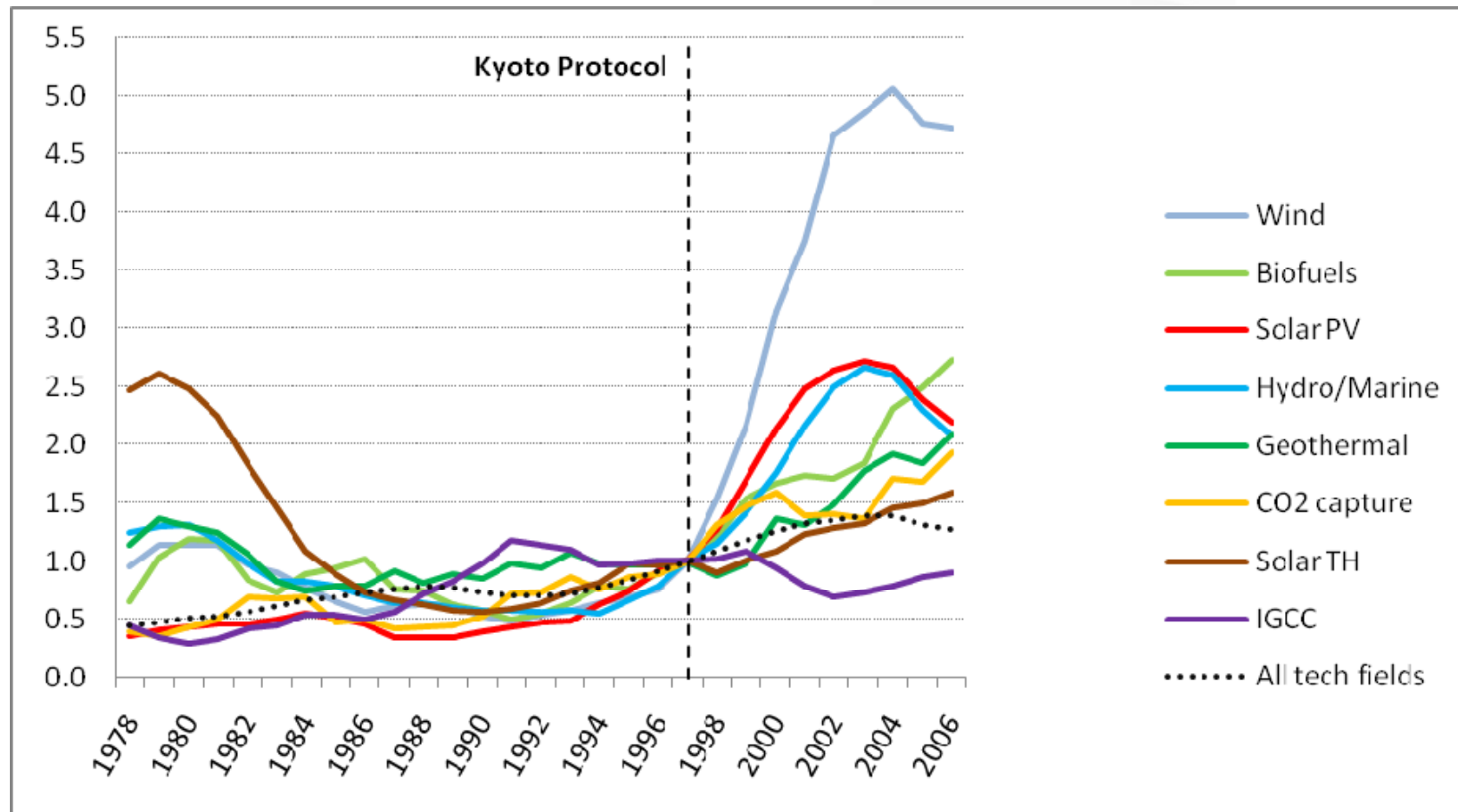


Source: © Global Footprint Network (2009). Data from Global Footprint Network National Footprint Accounts, 2009 Edition; UNDP Human Development Report, 2009

# Patenting patterns shows the responsiveness of the innovation system

## Patenting in climate mitigation technologies relative to all sectors

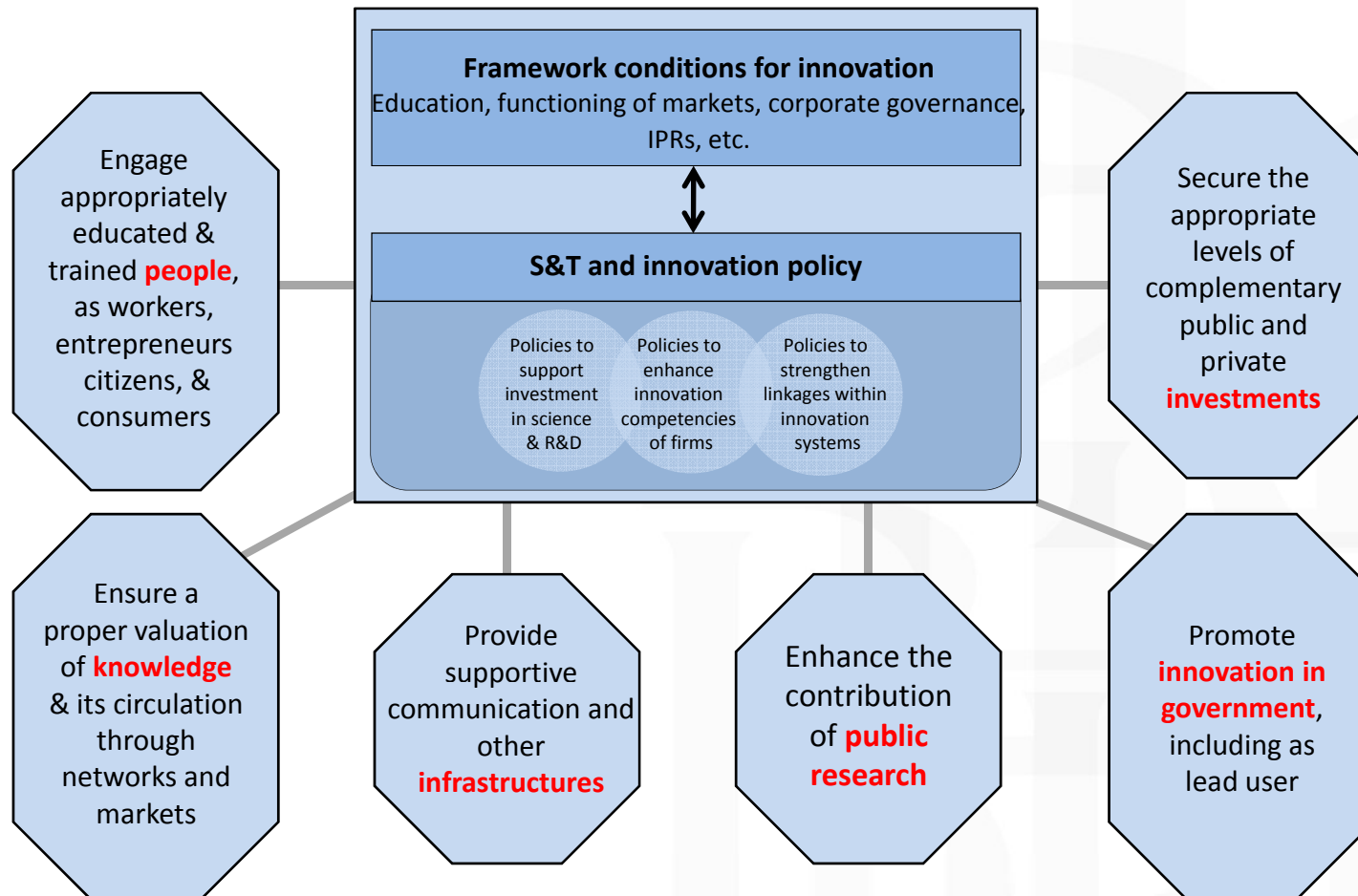
(indexed on 1980=1.0, ratification countries)



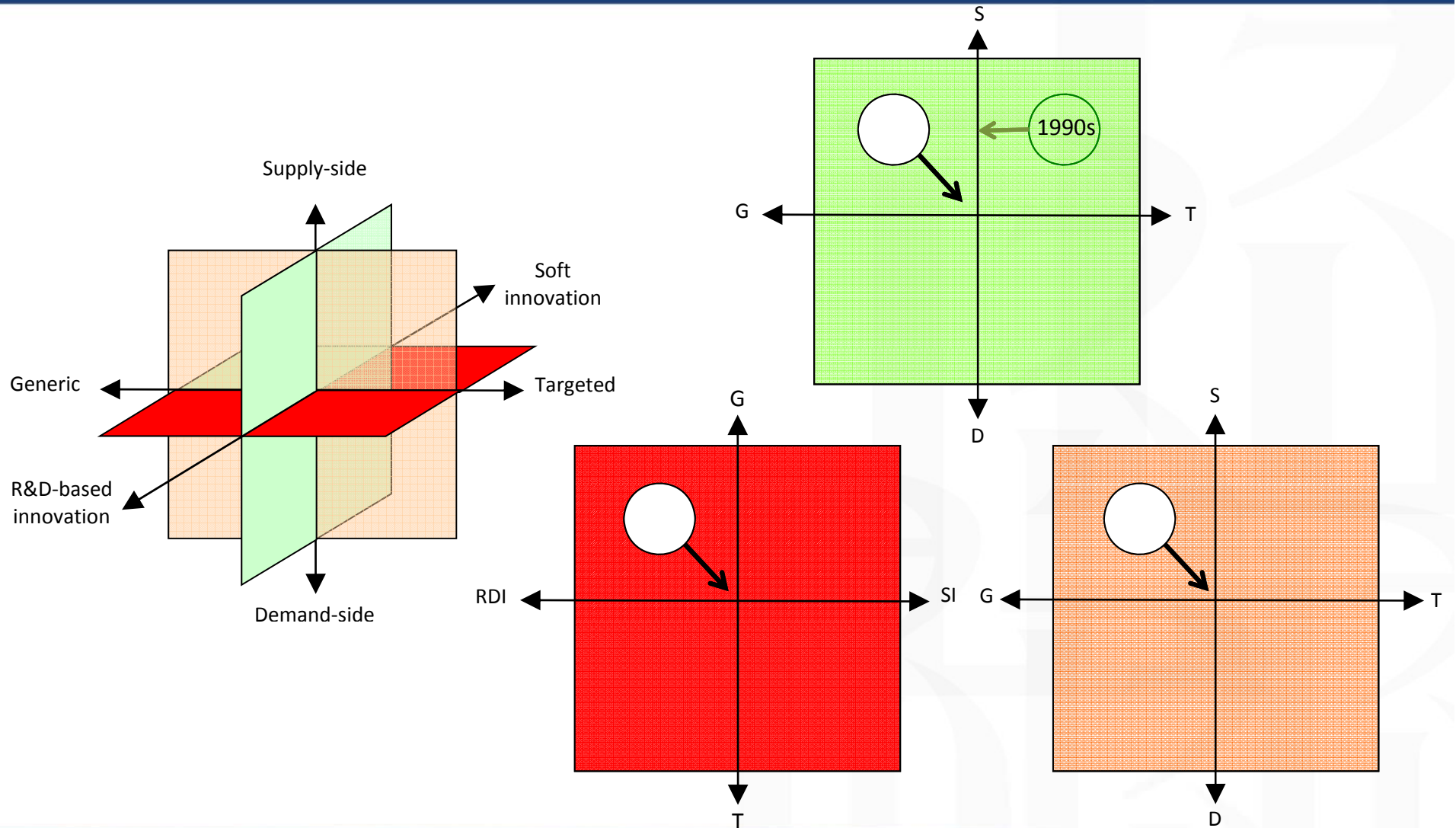
## Whole-of-government approach to innovation policy

- **Monetary, budgetary and tax policy** must protect against the “Dutch disease”, ensure fiscal sustainability while securing an appropriate amount of public investment in innovation, as well as an innovation-friendly tax treatment of assets and income.
- **Competition and trade policy** should work in tandem to discourage rent-seeking behaviour and help innovative businesses access global markets.
- **Financial policy** must promote the development of financial institutions that are able to value properly innovation-related investment and manage efficiently part of the risks inherent to innovation.
- **Education and training policy** should work with **labour market policy** to help secure the quantity, quality and efficient allocation of human resources required for more knowledge-intensive productive activities.
- **Research policy** must help develop and mobilise mutually reinforcing research capabilities in the public and private sector.
- **Industrial and regional policy** must provide appropriate infrastructure and other support to realise the innovation potential of specific sectors and clusters.
- **Social and health policy** should consider innovation a means, but also a result of, the improvement of quality of life.
- **Environmental policy** should see pro-innovation regulations and incentives as important means to encourage value-creating responses to the sustainability challenge
- **Judiciary policy** must enforce the rule of law, protecting innovation activities that are already inherently risky against additional unbearable uncertainties.

## Strategic tasks of innovation policy

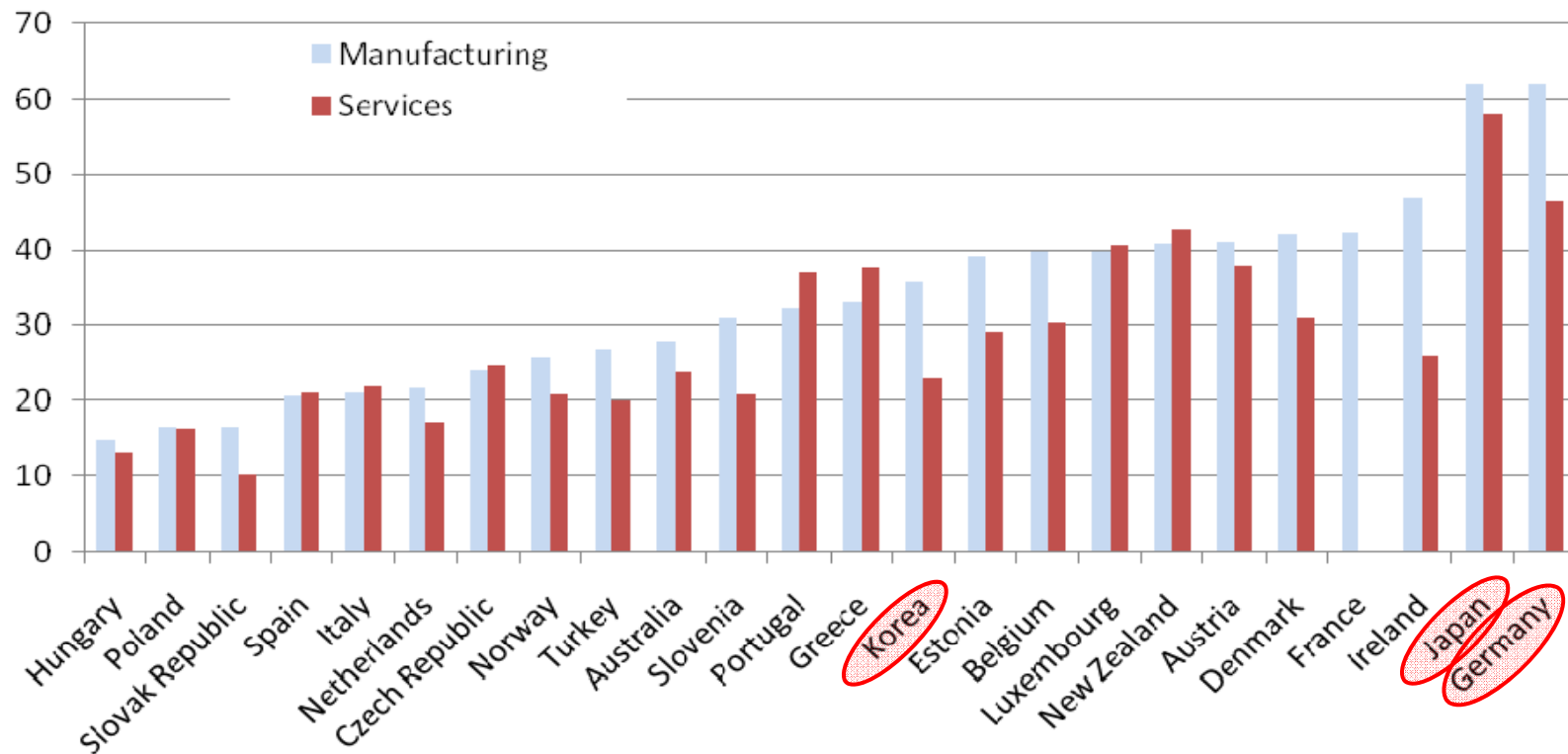


# Shifting balance within S&T and innovation policy

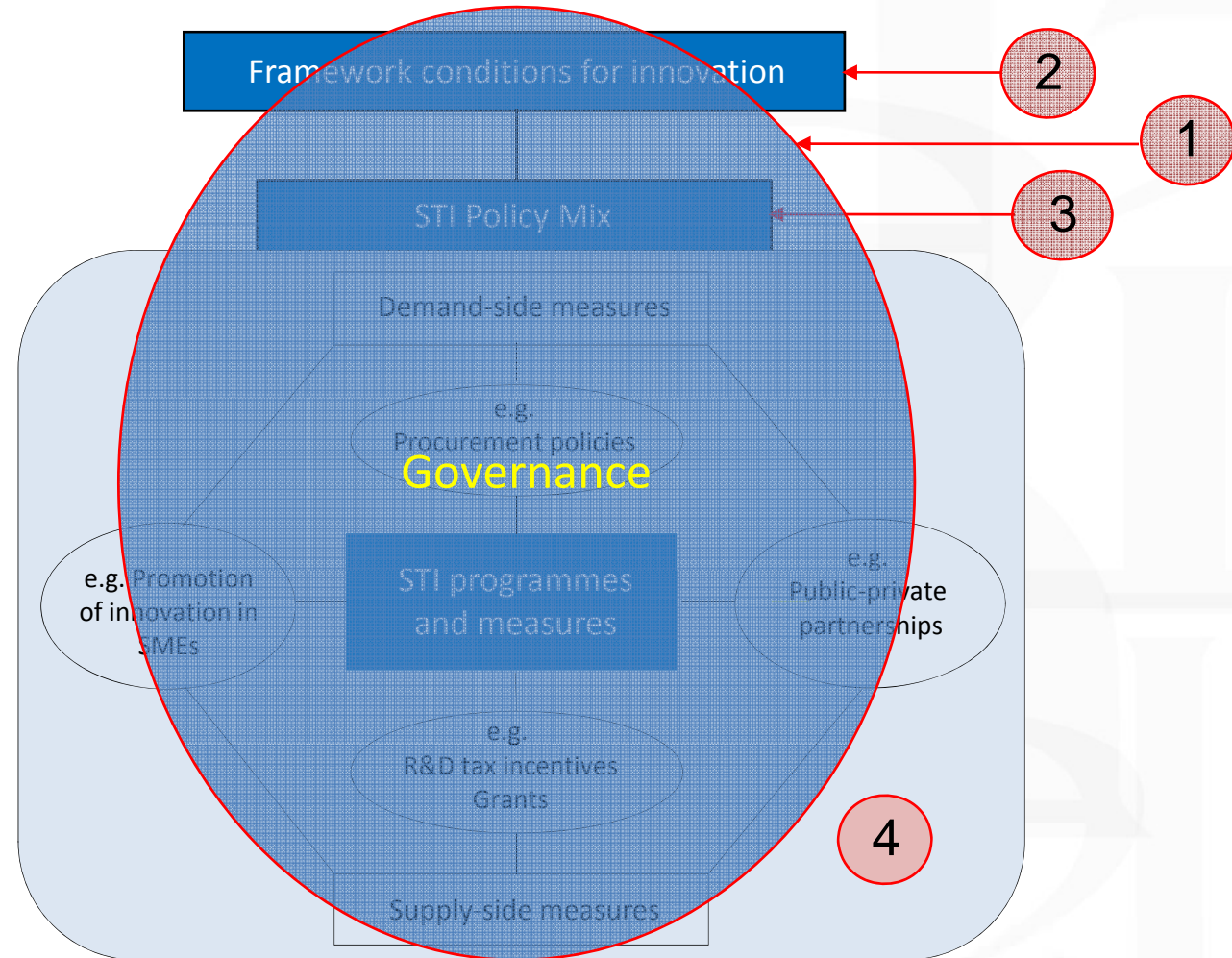


## Shifting balance within innovation policy: non-technological innovation

Share of non-technological innovators by sector



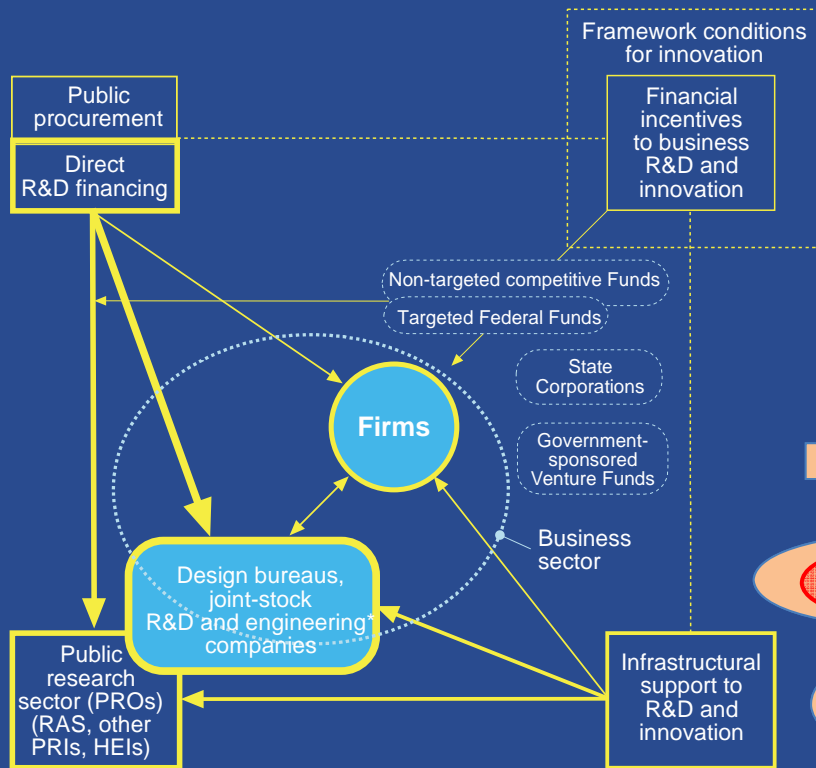
Source: OECD based on Eurostat, CIS-2006 (April 2009) and national data sources.



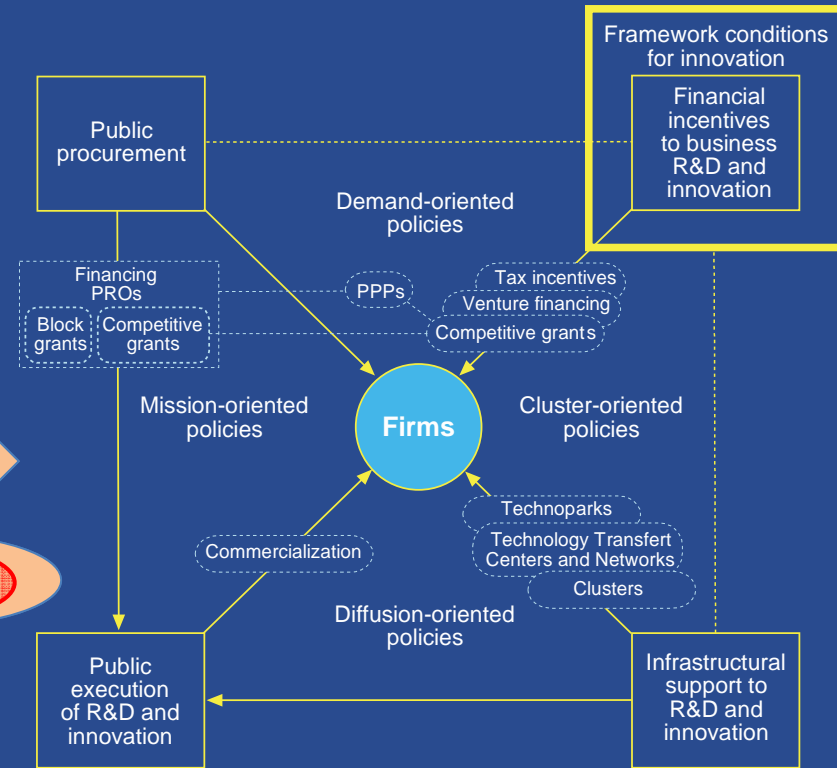


# Learning on what in the Russian context

## Russian Innovation System



## Archetypical Innovation System of leading OECD countries



Framework conditions, Restructuring of the R&D intensive sector; Commercialisation of public research; Demand-oriented policies; Promotion of business R&D, etc.

## International good practices

- Vision, leadership, coordination and commitment.
  - ✓ Stable platform anchored at the highest level of government.
  - ✓ Room for coordinated bottom-up initiatives, including regional policies.
  - ✓ Sustained public support beyond annual budget cycles.
- Legitimacy, efficiency and adaptability.
  - ✓ Participation of all stakeholders.
  - ✓ Monitoring and evaluation.
    - Develop and mobilize strategic intelligence.
    - International perspective.
    - Feedback to policy making.

## Implementation in Russia

- Growing awareness and commitment at the highest political level in the country and some regions.
- New institutional frameworks for policy coordination (the two “Commissions”).
- Renewed efforts to articulate overall vision (“Innovative Russia 2020”).

- Russian paradox (centralist tradition but fragmentation of policy making at the ministry or agency levels) still pervasive.
- Monitoring and evaluation still weak, scattered and often endogamous.
- Strategic intelligence abundant but not fully empowered and insufficiently fed by appropriate statistics and indicators.

### International good practices

- Broad approach to innovation recognizing:
  - ✓ The importance of non-technological innovation.
  - ✓ The need to combine research, engineering and business culture.
  - ✓ Innovation as a social process.
- More attention to stimulating demand, including to the benefit of new firms.
- Empowering innovative organizations and creative people.
  - ✓ Engaging even more the business sector.
  - ✓ Supporting innovation-oriented entrepreneurship.
  - ✓ Unleashing creativity throughout the economy and society by providing incentives to relevant people.

### Implementation in Russia

- Accumulated experience in using a now quite complete set of policy tools.
- Growing awareness of the need to deal with non technological innovation, notably in regions.
- New pressures from the demand-side, including for military R&D and innovation.

- Persistent “high-tech myopia”.
- Supply-push approach still dominant.
- Direct financing of institutions rather than financial incentives to creative people.
- The lack of demand from large firms limits the efficiency of policies to support NTBFs.
- “Innovation oasis” (enclaves) rather than “hot spots” in an already fertile environment.

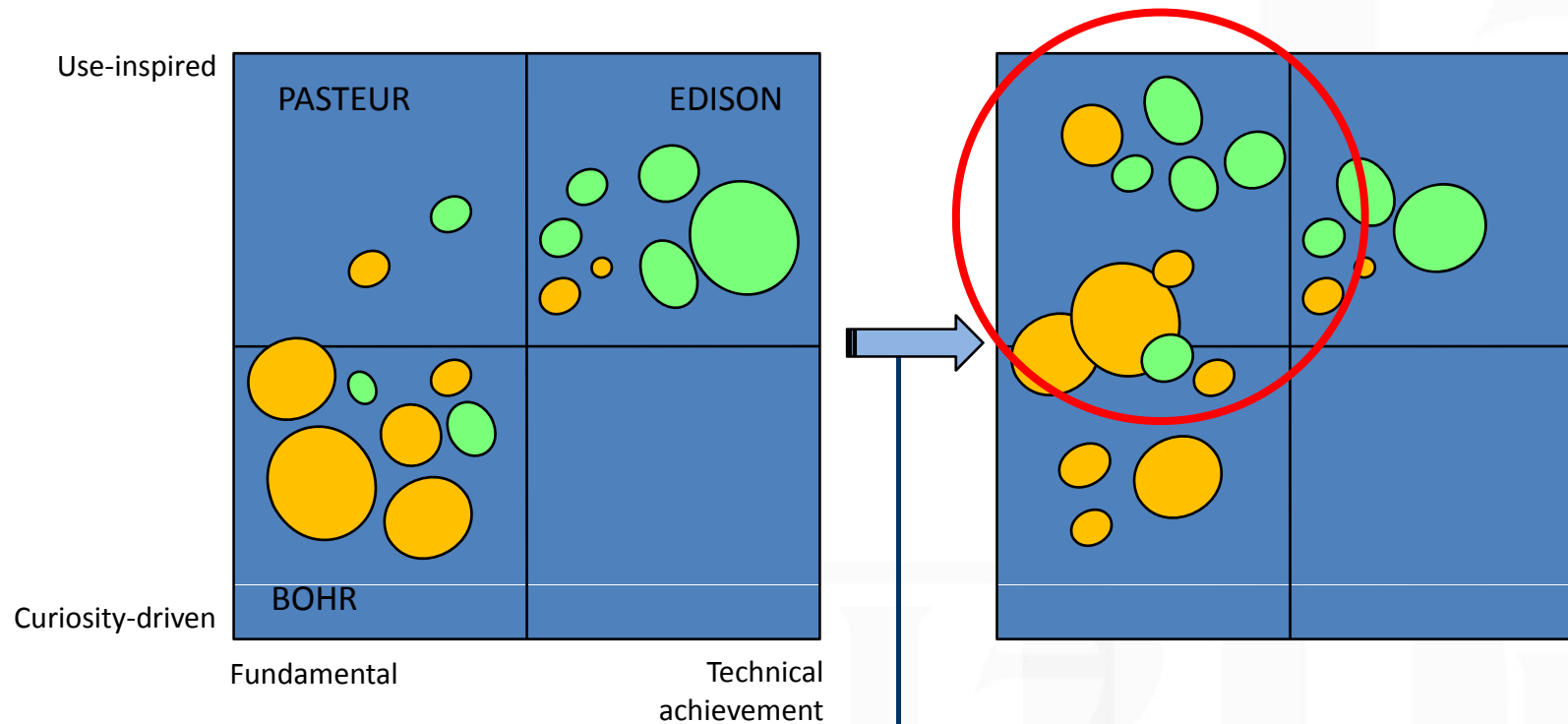
## International good practices

- Bringing research closer to education (rise of university research; increased contribution of Public Research Institutes (PRIs) to education).
- Promote industry-science relationships through all channels (patenting/licensing; spin-offs; personnel mobility; adaptive curricula; etc.).
- Shift the public research focus toward the « Pasteur quadrant » to enhance its complementarity with business R&D.
- Concentrate (additional) resources on networks of excellence, through thematic, public-public and public-private partnerships, especially in multidisciplinary projects.
- Promote quality and relevance through improved steering and financing mechanisms, including evaluation.
- Provides more autonomy to PROs in exchange of greater accountability.

## Implementation in Russia

- Reinforcement of university research; more selective support to PRIs.
- Increased share of competitive funding.
- More resources for the best (center of excellence approach).
- New programmes to promote co-operation with the business sector.

- The bulk of R&D support still concentrated on institutions too loosely connected to the education system and not enough receptive to market signals and evolving social needs.
- Aging of R&D personnel.
- Competition/co-operation among PROs often on reverse fronts.
- Strong resistance to evaluation in many PRIs.



- Universities
- PRIs

- Large-scale programmes in priority areas (top down)
- Public-private partnerships (bottom-up)
- Better recognition of user-driven research in evaluation
- Improve HRST mobility

## International good practices

- Firms on competitive markets are the main loci of innovation that transform new knowledge into economic wealth.
- A conducive business environment is key.
- Large and small (young) firms play a complementary and mutually reinforcing role in dynamic innovation systems.
- Innovative firms suffer from enduring market and systemic failures that justify government support.
- Efficient government intervention involves a mix of direct (targeted grants) and indirect (generic tax incentives) support.
- Public-private partnerships are good to foster cooperation between firms and public research and to draw on the exclusive competencies of firms in undertaking mission-oriented innovation.

## Implementation in Russia

- FASIE, RVC; quite large relevant innovation infrastructures; progress in improving the financing of NTBFs, including seed financing.
- New actors (e.g. Rosnano) promote an entrepreneurial approach to the commercialisation of public research.
- Innovation programmes for SOEs.
- The promise of a new privatisation round.

- A corporate R&D-intensive sector still dominated by "corporatized" PRIs / Design bureaus.
- Defective framework conditions for market-based actors.
- Use of "best practice" financial incentives constrained e.g. by the fear of corruption and the privileged access of PROs to budget.
- Insufficient access to foreign markets.



Thank you  
for your attention!

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