

Enhance Innovation Strategies, Policies and Regulation in Ukraine

EuropeAid/127694/C/SER/UA

Ukraine



This Project is funded by the European Union



Louis Berger

This project is implemented by Louis Berger-led Consortium



ADVANSIS

Key features in innovation policy-comparison EU and Ukraine

Dr Gudrun Rumpf

Master's course

“Management of international competitiveness”

Vadym Hetman Kyiv National Economic University

Kyiv, 6 June, 2011

Ukrainian/EU mirror analytical work in 15 policy areas (1/2):

- Commercialization R&D results from public research organizations
- Innovation driven, sustainable growth models
- Financing innovation
- Tax incentives
- Innovation Culture
- Setting priorities for innovation & technological development
- Networking innovation and business support infrastructure
- Coordination, roles, and responsibilities within NIS

Ukrainian/EU mirror analytical work in 15 policy areas (2/2):

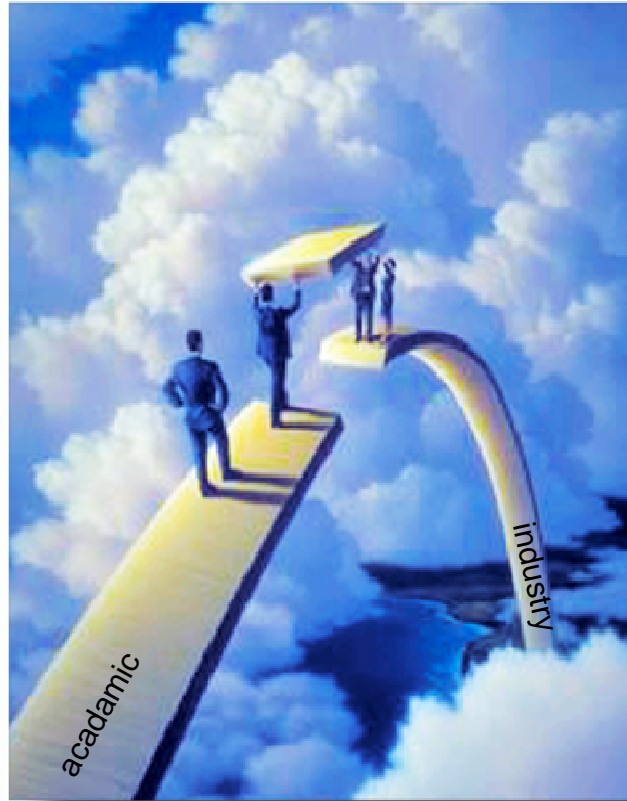
- State programmes in research and innovation
- State and regional policy for SMEs on research and innovation
- Innovation indicator tools
- Regional innovation programmes
- Decentralisation factors
- Peculiarities innovation development of steel & coal regions
- Innovation development in agriculture

Ukrainian/EU mirror analytical work in 15 policy areas:

- Which are the hottest issues?

1. Commercialization R&D results from public research organizations (PROs)

The “old” story



How to bridge the gap?

1. Commercialization R&D results from public research organization

- In Ukraine gap even wider than in US, Japan or EU
- Communication and operative interaction academia and business environment low
- Incentives for commercialising research results weak
- Outflow scientific staff continues
- Business capacity to absorb technology low
- Challenges to improve academia's understanding of business environment
- develop incentives for commercialising research results
- develop internal market for technology/ enhance the capacity and propensity of businesses to embrace technology
- develop technology transfer mechanism

2. Innovation driven, sustainable growth models

- Ukraine in „technology frontier“ catching-up mode.
- Formulation triangle policies (research, education, and innovation)
- Policy mix to support catching-up mode with imitation a major component
- Challenge to preserve scientific structures to create corresponding industrial structures and to bring remainder economy onto innovation based development path
- Long term development plans supported by all major stakeholders
- Combine cost advantage with increased innovation activity

3. Financing innovation

- Level R&D financing as a proportion of GDP declined over the years, reached lowest ever record since independence
- 90 % of state funding is institutional funding
- Innovation in business sector mainly financed from company's own funds

Challenges:

- Increase overall volume of investment both from public and private sources
- Fill gaps in innovation financing, such as development of effective innovation support instruments for business sector (SMEs!) and encouragement seed and VC
- More competitive and transparent, project-based funding with clear innovation objectives.

4. Tax incentives

- Many OECD countries have introduced different types of tax incentives. Design schemes need careful consideration deduction basis, eligible costs, definition R&D etc.
- In Ukraine tax regime complex, broad range minor taxes, frequent tax breaches observed. No tax system in place which could stimulate corporate R&D and innovation.
- Impact assessments R&D tax incentives hard to undertake.
- Well-functioning R&D tax incentives require well-functioning and streamlined overall tax regime.
- In order to introduce tax incentives on a larger scale in Ukraine care needs to be taken to balance with other incentives and overall tax system.
- Overall policy mix for a balanced approach needed, e.g. more direct R&D subsidy and tax incentives.

5. Innovation Culture

- Effectiveness of EU innovation culture support measures depends on trust among the citizens and organisations of the society.
- In Ukraine the role of science education has greatly diminished in the education system, which erodes competence base required for R&D and innovation.
- Key lesson learned from EU is that advancement of innovation culture is time-consuming and the pace of change varies between different domains of society.
- Implementation of a general scheme for promotion of innovation culture not fruitful starting point from point of view of policy development.
- In view of scarcity of resources light policy measure preferred, such as monitoring and disseminating good practices, or concentration resources on domains deemed strategically important.

6. Setting priorities for innovation & technological development

- In Ukraine a lot of efforts done to setting priorities in activities for science, technology, and innovation. Instruments are well developed and can be compared to EU countries (e.g. foresight exercises).
- Versus EU differences in process (in EU involvement of various stakeholders participating in foresight processes); in level (in Ukraine a lot goes through parliamentary hearing, in EU it goes through various agencies responsible for funding R&D efforts); in implementation; in evaluation; and in focus (in Ukraine mainly thematic/ mission based, in EU also functional priorities).
- In Ukraine a lot of effort was put to legislation. Challenge now is so organise innovation system in a way to ensure that set priorities are implemented, monitored and evaluated.
- Key challenges backing up priorities by specific thematic funding; increase share in competitive funding; other mechanisms policy mix.

7. Networking innovation and business support infrastructure

- Ukrainian innovation and business support infrastructure underfunded and undernetworked. They are not equipped with tools, methodologies and knowledge to provide state of the art support services.
- Start-ups and SMEs most affected by this lack.
- Key challenges to link Ukrainian innovation and business support infrastructure to international best practice providers.
- Adhere to world class networks in technology transfer; in driving start ups; and in setting up successful 7th Framework Programme (FP7) R&D consortia.

8. Coordination, roles, and responsibilities within NIS

- Many different ministries, agencies and committees in National Innovation System (NIS) of Ukraine, but no single representative of the government.
- No formal linkages.
- Priority setting top down, no efficient vertical coordination between organisations responsible for policy formulation and those responsible for implementing these.
- In EU clearer division of labor between ministries and agencies.
- In EU agencies prove to be most efficient when given control over programme design and implementation.
- Shift from fragmented public interventions towards coordinated and consistent visions with specific objectives.

9. State programmes in research and innovation

- Major differences in state programmes between EU and Ukraine in: Budget volume; Budget security; Level participation enterprises; Public-private cooperation; Internationalisation; Monitoring/ evaluation; Evaluators's selection and competences; Programme development; Programme management; Programme manager selection; and Funding criteria.
- Key policy question: What function and ultimate impact is anticipated by state programmes?
- Resolve issue attractiveness state programmes towards business sector.
- Planning, resourcing and managing equally important. Are the conditions for all stakeholders to participate lucrative and easy enough? Are programmes marketed to companies?
- Monitoring and evaluating programmes and their results means for government to learn and upgrade competencies.

10. State and regional policy for SMEs on research and innovation

- In Ukraine very few SMEs involved in innovation.
- Ukrainian regions run regional support programmes for SMEs. However, no focus on development of innovative entrepreneurship. Also weak business and innovation support infrastructure.
- Weak role of business sector to carry out R&D
- Specify targets of instruments, benchmark them with good practices of other countries.
- Create favourable conditions for innovation.
- Strengthen innovation & business support infrastructure
- Government at least partially to fulfil the role of VC investor.

11. Innovation indicator tools

- Ukraine is not yet aligned to OECD/ Eurostat innovation statistics system.
- By prudently aligning some definitions to OECD/ Eurostat methodology, it will be possible Ukraine fully adheres to the methodology.
- It would be possible to compare at one glance innovation status of Ukraine compared to all OECD countries, China, Russia, Brazil, South Africa etc.
- Indicators make it possible to compare regions with the help of region's innovation index. This will help to define strong and weak points of separate regions in Ukraine, and to justify development directions of scientific and technological policy of Ukraine.
- Vision: OECD will start using data on Ukraine in its comparative research. UNESCO and other international organisations use OECD standards almost unchanged.

12. Regional innovation programmes (1/2)

- In all EU Member States regional policy gains importance.
- Policy mix depends on division of power.
- Policy objectives with specific budgets on the base of multiannual programme with specific measures, implementation and quantified targets.
- Specific mechanisms, capacities and organisational structures.
- In Ukraine some efforts were made to define specific objectives and to initiate projects. Usually no specific implementation plans and budgets. Only Kyiv and Donetsk have organisational structures dedicated to innovation policy.

12. Regional innovation programmes (2/2)

- Need for clear responsibilities among different levels of operational management.
- Need for distinction of functions and responsibilities among programming and managing authorities.
- Need for mechanisms allowing coordination of regional with national policies.
- Shift from linear model towards a systems based approach suggests soft policies aiming at increasing absorption capacity of all actors in region.
- Need for monitoring implementation and impact.

13. Decentralisation factors

- Development regional innovation systems important policy dimension for most countries.
- In the EU, unlike in Ukraine, involvement of regions in the shaping of regional policies was combined with a shift of power and resources towards regions.
- Key challenges are clear allocation of policy design and implementation responsibilities among central and regional governments.
- Reallocation of responsibilities combined with secured resources for the regional authorities.
- Development of policy making and implementation capacity in regions.

14. Peculiarities innovation development of steel & coal regions (1/2)

- Globalisation in the 20th century caused significant damage to European coal and steel industries.
- The process of restructuring follows some main features.
- The role of government was crucial even in cases where a free-market approach was adopted.
- Consolidation of industry was accompanied by a set of measures to fight increasing unemployment and social exclusion.
- Most successful countries invested heavily (public and private) on increasing the productivity of the industries by technology transfer or by developing process innovation in-house. Differentiation of steel production.

14. Peculiarities innovation development of steel & coal regions (2/2)

- Restructuring policies in more recent times support alternatives to declining industries:
- Development of local entrepreneurship and promotion of SMEs.
- Attraction of foreign direct investments by creating necessary infrastructures and setting incentives.
- Development of a service economy and mainly tourism by transforming the abandoned coal mining and steel sites to attractive leisure and cultural areas.

15 a. Innovation development in agriculture (1/3)

Ukraine:



Largest country in Europe with 603 700 km² largely plains

Europe's traditional bread basket with 26 Mio hectares fertile arable land and 30 % of the world's (!) fertile black earth

17,5 % GDP and 25 % of jobs in agriculture

Land owners limited financial means and modern production know how → agriculture often on lease basis

15 b. Innovation development in agriculture (2/3)

Ukraine's plans for agriculture?

More quantity?

Worldwide less land available for agriculture:
2010 0.11 hectares per capita grain production
versus 0,18 hectares in 1970

Every year 5-7 Mio hectare arable land lost (!) worldwide

Only 12 % grain is traded internationally

After August 2010 fires in Russia,
global wheat producer # 3,
bread prices raised 20 % worldwide



15 c. Innovation development in agriculture (3/3)

Ukraine's plans for agriculture?

More quality?

Sales organic food products in Germany doubled since 2000 to 5,3 bn €
30-50% organic products are imported.

Prices organic products 20-95 % higher than conventinal ones

Since 2007 qualiy control certification set up

1 % arable land is organic land in Ukraine

September 2007 government decree No 1158 National Program „Agricultural Development up to 2015“ with aim to uhave up to 10 % of organic product share in total gross agricultural output

Requirements to benefit sustainably from organic farming:

Securing marketable amounts of quality certified organic productions by Ukrainian group of producers

Transfer production and marketing know how

Set up distribution channels

Effective national legislation on organic farming, consumer education, and promotion organic farming needed



Ukrainian/EU mirror analytical work in 15 policy areas



If you met Viktor Yanukovich what would you propose to him

- to raise the GDP of Ukraine
- to lead the country to a knowledge economy
- to raise its competitiveness?

**Thank you for your
attention and contribution**



mob. +38 096 551 4463

E.mail: gudrun.rumpf@lbsas.eu