



Challenges of IP Commercialization and Technology Transfer in the Region

“Danube Innovation Partnership” Initiative

Bucharest, October 29, 2013

Topics

- Danube Area – Region of Historical Connections
- Global Innovation Index – Danube Region
- “Common Challenges – Building Solutions”
- Partnerships – Best Platform for Innovative Future
- Role of WIPO

Danube Area - Region of Historical Connections

- Traditional Links – Political, Economic, Cultural;
- Culture of Regional Inter – Action;
- Good Knowledge and Understanding of Situation in Surrounding Countries;
- Ethnically Mixed Population with Increasing Mobility;
- Cultural Facility in Establishing Contacts in the Region;
- Average Good Educational Level;
- Tradition of Scientific Research;
- IP Status:
 - General Awareness about the Role of IP and Innovation;;
 - Solid IP Systems;
 - Strategies Related to IP and Innovation;
 - Lacking – Comprehensive Organizational Infrastructure, Professionals and Skills Needed for Systematic IP Commercialization and Technology Transfer;
- General Orientation - Harmonization and Alignment with European Strategies and Laws.
- **There is a positive attitude and general predispositions for creating innovative partnerships.**



Innovation and Technology Transfer – It is All About Partnerships !

- **Innovation** – defined by world economists as a most efficient way for overcoming economic problems and its consequences sustainable results;
- Creating favorable conditions for fostering innovation in all societies became a strong demand and challenge for policy makers – on the national and regional level;
- Objective - systematic creation, diffusion and use of new and economically viable knowledge for economic, social and cultural development of societies;
- Conditions needed – framework and support structure;
- **Innovation eco - system** - framework of interconnected and interdependent public and private **structural elements** (policies, organizations, funds and people) and **relationships**.

INNOVATION ECOSYSTEMS

LEGAL FRAMEWORK

- Innovation Strategies/Policies
- Laws and Regulations
- Institutional Policies
- Supporting Regulations
- Bankruptcy Laws
- Immigration Policies

ORGANIZATIONS AND PROCESSES

- Clusters
- TTOs
- IP Hubs
- Incubators
- Technology Parks
- Intermediaries
- Knowledge Markets

HUMAN AND KNOWLEDGE CAPITAL

- Interdisciplinary Professions
- IP Experts
- Specialists
- Education
- Trainings
- Workshops

FUNDING

- Commercial and Development Banks
- Governments
- Private Businesses
- Foundations
- Venture Capitalists
- Business Angels

Global Innovation Index

- A Global Measurement Tool
- To move beyond simplistic metrics of innovation (R&D) – need for a broad horizontal vision of innovation that is applicable to both developed and emerging economies, with the inclusion of indicators that go beyond the traditional measures of innovation;
- Measuring Innovation as a Process in Time (evolving development of the country or region in time)– Potentially Useful Tool for Definition of Innovation Strategies;
- 142 Countries Benchmarked
- 84 Selected Innovation Indicators - basic framework for innovation eco – system.



The GII is a multi-stakeholder effort

Co-published by Cornell University, INSEAD and WIPO

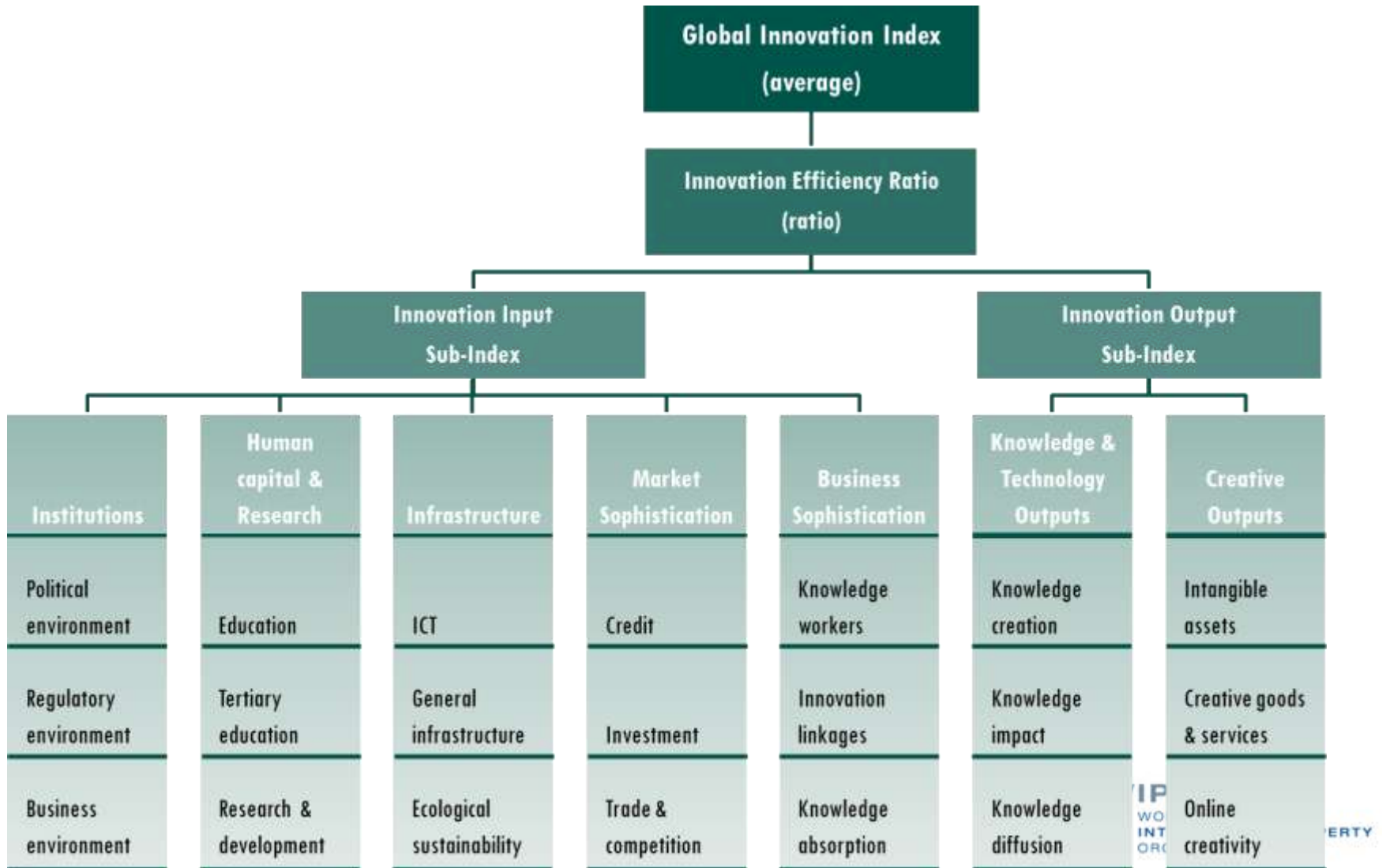
Four Knowledge Partners: Booz & Company, the Confederation of Indian Industry, du, and Huawei

Independent statistical audit by the Joint Research Centre of the European Commission

International advisory board



A tool for action around 84 metrics



GII 2013 Rankings – Top 10 – What is the status of Danube Region?

Input Sub-Index	Output Sub-Index	Efficiency Ratio	GII
<ol style="list-style-type: none"> 1. Singapore 2. Hong Kong (China) 3. United States of America 4. United Kingdom 5. Sweden 6. Finland 7. Switzerland 8. Denmark 9. Canada 10. Netherlands 	<ol style="list-style-type: none"> 1. Switzerland 2. Netherlands 3. Sweden 4. United Kingdom 5. Malta 6. Luxembourg 7. Iceland 8. Finland 9. Israel 10. Germany 	<ol style="list-style-type: none"> 1. Mali 2. Moldova, Rep. 3. Guinea 4. Malta 5. Swaziland 6. Indonesia 7. Nigeria 8. Kuwait 9. Costa Rica 10. Venezuela, Bolivarian Rep. 	<ol style="list-style-type: none"> 1. Switzerland 2. Sweden 3. United Kingdom 4. Netherlands 5. United States of America 6. Finland 7. Hong Kong (China) 8. Singapore 9. Denmark 10. Ireland

Top 10 in 2012 – What was the situation last year ?

Input Sub-Index	Output Sub-Index	Efficiency ratio	Global Innovation Index
<ol style="list-style-type: none"> 1. Singapore 2. Hong Kong (China) 3. Sweden 4. Switzerland 5. UK 6. Finland 7. Ireland 8. Denmark 9. USA 10. Canada 	<ol style="list-style-type: none"> 1. Switzerland 2. Sweden 3. Netherlands 4. Malta 5. Finland 6. UK 7. Germany 8. Estonia 9. Denmark 10. Luxembourg 	<ol style="list-style-type: none"> 1. China 2. India 3. Republic of Moldova 4. Malta 5. Switzerland 6. Paraguay 7. Serbia 8. Estonia 9. Netherlands 10. Sri Lanka 	<ol style="list-style-type: none"> 1. Switzerland 2. Sweden 3. Singapore 4. Finland 5. UK 6. Netherlands 7. Denmark 8. Hong Kong (China) 9. Ireland 10. USA

Global Innovation Index – Danube Region

■ Global Innovation Index – World Comparison

- Germany – 15
- Austria – 23
- Czech Republic - 28

■ Innovation Input

- Austria - 17
- Germany – 20
- Czech Republic - 27
- Slovenia - 29

■ Innovation Output

- Germany – 10
- Hungary – 23
- Czech Republic – 26
- Austria - 27

■ Innovation Efficiency

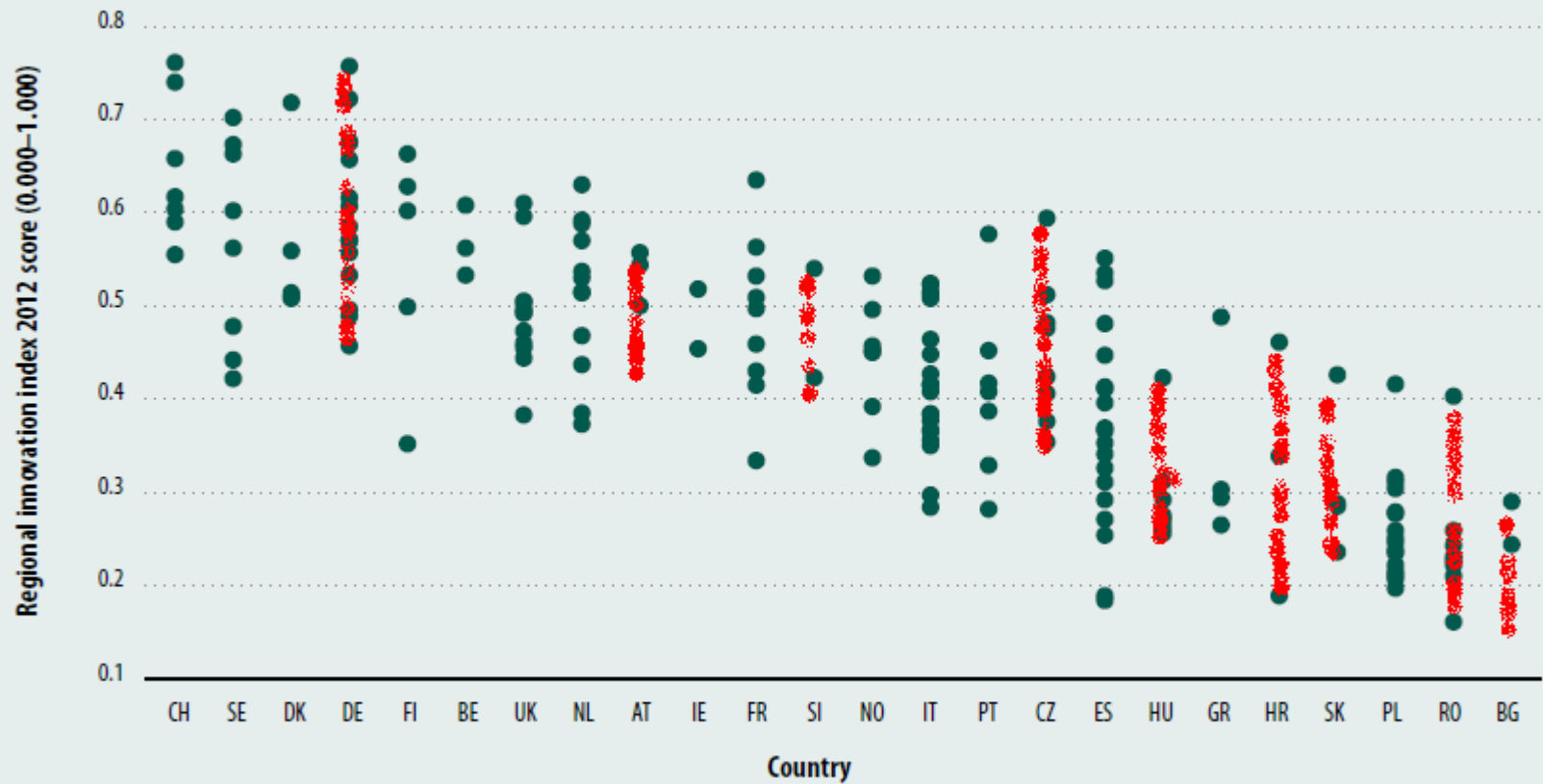
- Hungary – 23
- Romania – 34
- Bulgaria – 35
- Germany – 40
- Serbia - 49

■ In the Framework of Europe

■ Frequently in Top 20

- Germany
- Austria
- Czech Republic
- Slovenia

Figure 1: Regional innovation performance: Wide country variations



Source: Author's calculations using RIS 2012 data.

Note: Country codes are those used by Eurostat: AT = Austria, BE = Belgium, BG = Bulgaria, CH = Switzerland, CZ = Czech Republic, DE = Germany, DK = Denmark, ES = Spain, FI = Finland, FR = France, GR = Greece, HR = Croatia, HU = Hungary, IE = Ireland, IT = Italy, NL = Netherlands, NO = Norway, PL = Poland, PT = Portugal, RO = Romania, SE = Sweden, SI = Slovenia, SK = Slovakia, UK = United Kingdom

Global Innovation Index – Danube Region

■ Strong Points

■ Increasing Investment in Business R&D from 2008

- Slovenia
- Hungary
- Slovakia
- Czech Republic

■ Scientific and Technical Publications (world scale)

- Serbia – 2
- Slovenia – 5
- Croatia – 14
- Czech Republic - 26

■ Knowledge Impact (world scale)

- Bulgaria – 8
- Romania 13
- Slovenia – 15
- Croatia - 16

■ Creative Goods Export (world scale)

- Slovakia – 2
- Czech Republic -6
- Hungary – 7
- Romania 28

■ Weak Points

■ Intangible Assets

- Austria - 50

■ Venture Capital Deals

- Germany

■ Strategic Alliance Deals

“Common Challenges – Building Solutions”

- There is a difference in the level of development of innovation eco – systems and areas of innovation – technology or creative industries – among countries in the Region;
- R&D expenditure and sophistication of research is in the balance with the level of economic development of the country, and it defers from North to South;
- Proportionally high level of university education – (6 from 10 countries in 30 top world scale);
- Impact of knowledge is relatively high;
- There is an average good level of creativity;
- Publications and technical papers are still predominant in comparison with protected IP;
- New trend – higher investment in business R&D;
- **Common Challenge**
 - Efficient use of innovation input;
 - Higher innovation output (only Germany in top 10);
 - Strategic creation of intangible assets;
 - Innovation linkages;
 - Development of IP market tools – GII shows that venture capital deals are almost non – existing in the region;
 - Average level of market sophistication do not correspond to the needs of innovation promotion. .

Building Solutions in Danube Region

- Essential – Partnerships and Networks!!
- **Creation of Danube Innovation Eco – System for Interested Partners:**
 - **Cluster Based;**
 - **On the Sectarian Base; or**
 - **Network of Sub – Regional Networks.**

- Pilot Project with Realistic Objectives and Managable;
- Step by Step;
- Important – To Manage Expectations of Stakeholders!
- Partners with Innovation Vision;
- Sustainable Commitment;
- Long Term Follow up and Vision.

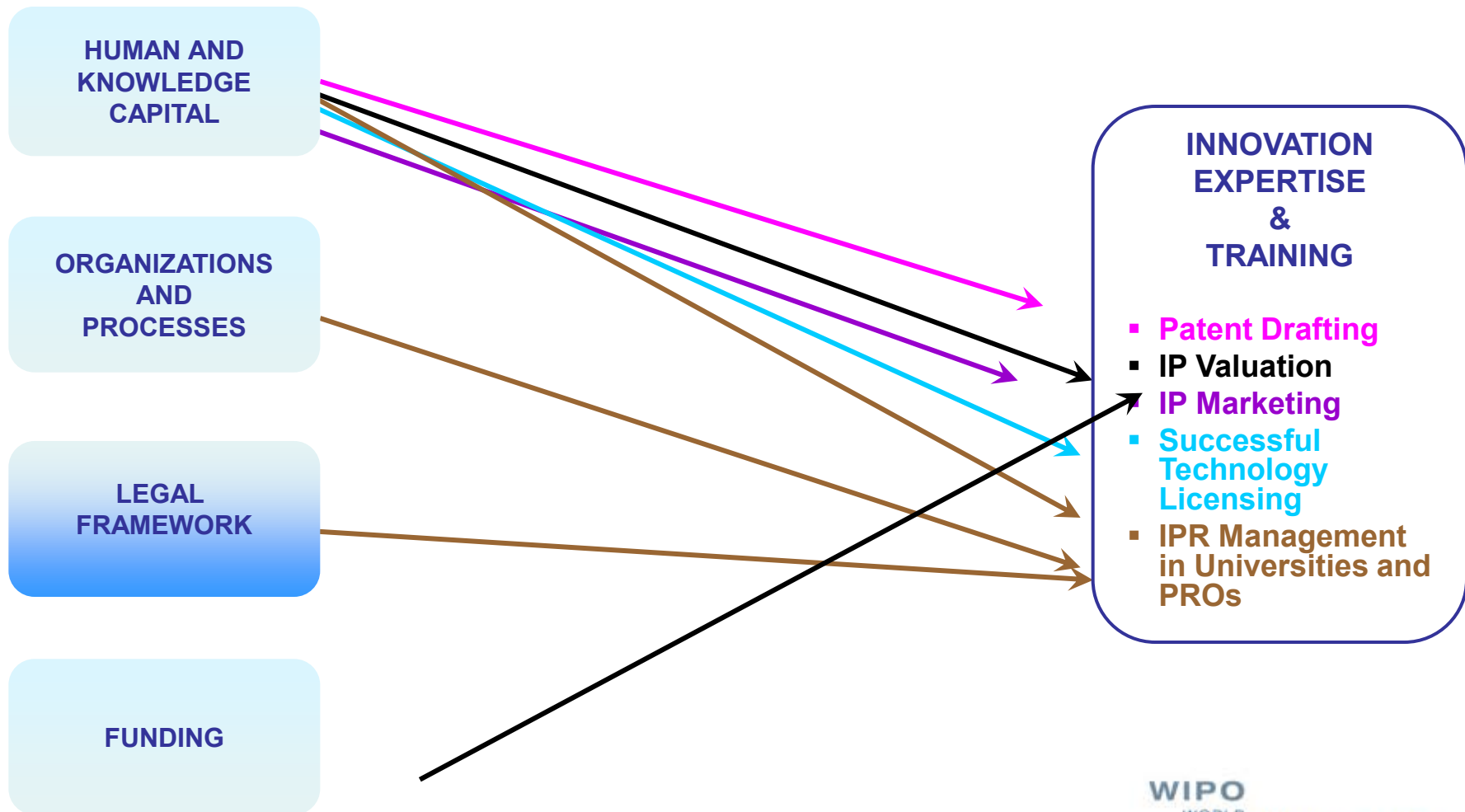
Role of WIPO

Assist in:

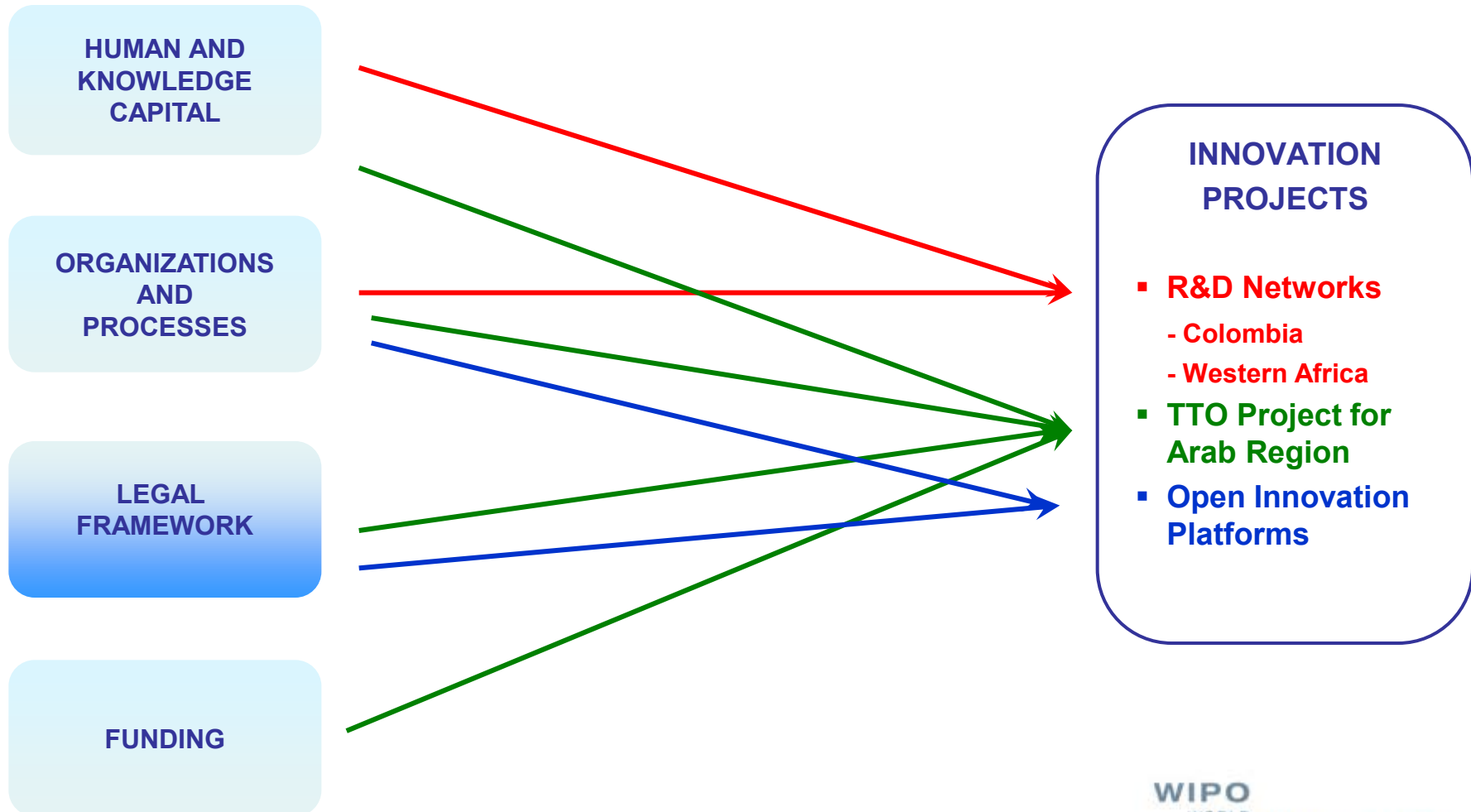
- Development of innovation eco systems in WIPO Member States (policy and organizational infrastructure);
- Dissemination of information about best practices;
- Provide an expert assistance on issues relevant for IP commercialization and technology transfer;
- Create and deliver customized capacity building programs on IP commercialization and knowledge transfer ;
- Connect with other regions outside of Europe to enhance IP based collaborations and exchange of experiences.



WIPO Expertise



WIPO Innovation Division's Activities





Thank you !

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