



Information Society
Development Institute
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ICT RDI funding in Moldova - challenges and opportunities

Information Society Development Institute
Academy of Sciences of Moldova

Innovation in Moldova – how are we doing globally?

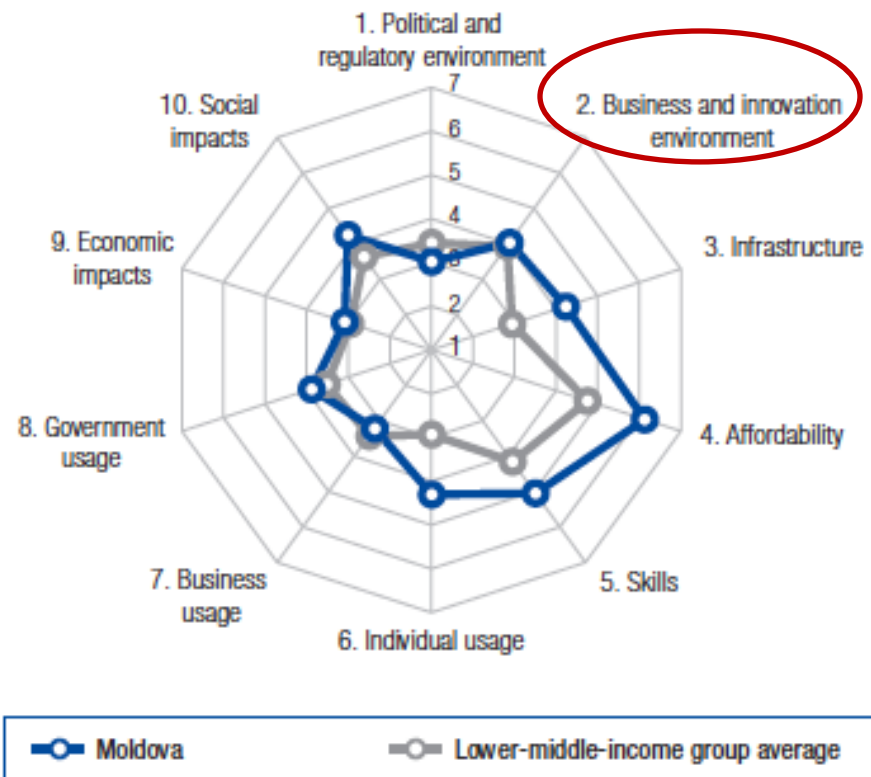
Rank Value
(out of 139) (1–7)

Networked Readiness Index..... 71.. 4.0

Networked Readiness Index 2015 (out of 143)..... 68..... 4.0

Networked Readiness Index 2014 (out of 148)..... 77..... 3.9

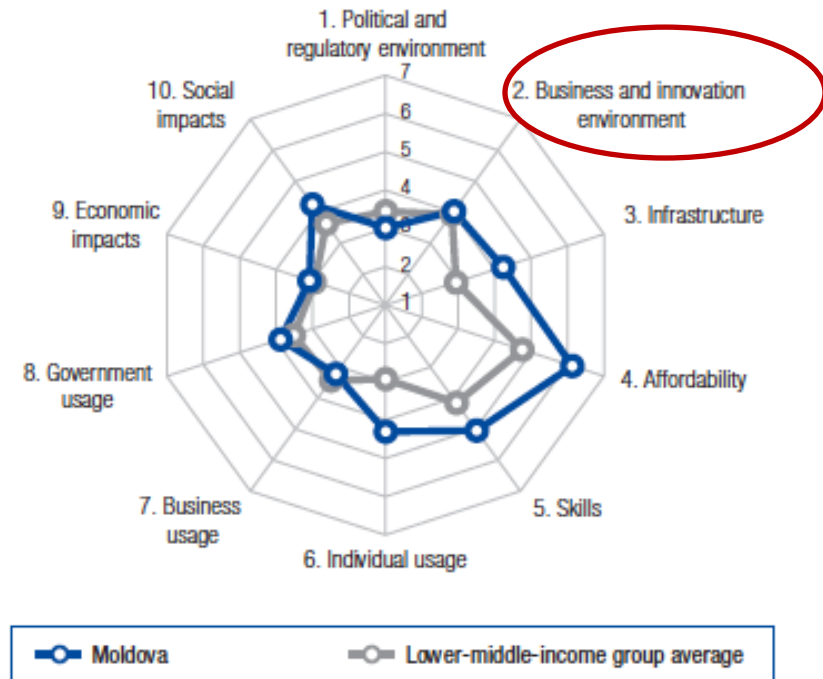
Networked Readiness Index 2013 (out of 144)..... 77..... 3.8



Source: Global Information Technology Report 2016

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	Rank (out of 139)	Value (1–7)
Networked Readiness Index	71	4.0
Networked Readiness Index 2015 (out of 143).....	68	4.0
Networked Readiness Index 2014 (out of 148).....	77	3.9
Networked Readiness Index 2013 (out of 144).....	77	3.8
A. Environment subindex	111	3.5
1st pillar: Political and regulatory environment.....	125	3.0
2nd pillar: Business and innovation environment.....	89	4.0
B. Readiness subindex	52	5.1
3rd pillar: Infrastructure.....	69	4.2
4th pillar: Affordability.....	29	6.1
5th pillar: Skills.....	70	5.0
C. Usage subindex	76	3.8
6th pillar: Individual usage.....	63	4.3
7th pillar: Business usage.....	112	3.2
8th pillar: Government usage.....	66	3.9
D. Impact subindex	71	3.7
9th pillar: Economic impacts.....	81	3.1
10th pillar: Social impacts.....	60	4.2



Source: Global Information Technology Report 2016

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2nd pillar: Business and innovation environment

2.01	Availability of latest technologies*	92	4.4
2.02	Venture capital availability*	123	2.1
2.03	Total tax rate, % profits	80	40.2
2.04	No. days to start a business	15	4
2.05	No. procedures to start a business	22	4
2.06	Intensity of local competition*	103	4.6
2.07	Tertiary education gross enrollment rate, %	63	41.3
2.08	Quality of management schools*	118	3.3
2.09	Gov't procurement of advanced tech*	133	2.5

Source: Global Information Technology Report 2016

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Table 1: Global Innovation Index rankings

Country/Economy	Score (0–100)	Rank	Income	Rank	Region	Rank	Efficiency Ratio	Rank	Median: 0.65
Switzerland	66.28	1	HI	1	EUR	1	0.94	5	
Sweden	63.57	2	HI	2	EUR	2	0.86	10	
United Kingdom	61.93	3	HI	3	EUR	3	0.83	14	
United States of America	61.40	4	HI	4	NAC	1	0.79	25	
Finland	59.90	5	HI	5	EUR	4	0.75	32	
Singapore	59.16	6	HI	6	SEAO	1	0.62	78	
.....									
Bulgaria	41.42	38	UM	3	EUR	26	0.83	16	
Poland	40.22	39	HI	36	EUR	27	0.65	66	
Greece	39.75	40	HI	37	EUR	28	0.61	84	
United Arab Emirates	39.35	41	HI	38	NAWA	3	0.44	117	
Turkey	39.03	42	UM	4	NAWA	4	0.84	13	
Russian Federation	38.50	43	HI	39	EUR	29	0.65	69	
Chile	38.41	44	HI	40	LCN	1	0.59	91	
Costa Rica	38.40	45	UM	5	LCN	2	0.71	50	
Moldova, Rep.	38.39	46	LM	1	EUR	30	0.94	4	
Croatia	38.29	47	HI	41	EUR	31	0.65	68	
Romania	37.90	48	UM	6	EUR	32	0.72	46	
Saudi Arabia	37.75	49	HI	42	NAWA	5	0.61	85	
Qatar	37.47	50	HI	43	NAWA	6	0.56	97	

With Bulgaria (38) and Romania (48) a few middle-income countries— such as Turkey (42nd), Costa Rica (45th), and the Republic of Moldova (46th) with lower middle income are a part of the top 50 ranked along with high income countries.

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Global Innovation Index

Innovation Input Sub-Index

Innovation Output Sub-Index

Innovation Efficiency Ratio

High-income economies (49 in total)

1	Switzerland (1)	Singapore (1)	Switzerland (1)	Luxembourg (1)
2	Sweden (2)	Hong Kong (China) (2)	Sweden (2)	Malta (2)
3	United Kingdom (3)	United States of America (3)	Luxembourg (3)	Iceland (3)
4	United States of America (4)	Finland (4)	United Kingdom (4)	Switzerland (5)
5	Finland (5)	Sweden (5)	Ireland (5)	Estonia (6)
6	Singapore (6)	Switzerland (6)	Iceland (6)	Ireland (8)
7	Ireland (7)	United Kingdom (7)	United States of America (7)	Germany (9)
8	Denmark (8)	Denmark (8)	Germany (8)	Sweden (10)
9	Netherlands (9)	Japan (9)	Netherlands (9)	United Kingdom (14)
10	Germany (10)	Canada (10)	Finland (10)	Hungary (17)

Lower-middle-income economies (29 in total)

1	Moldova, Rep. (46)	Bhutan (54)	Moldova, Rep. (36)	Moldova, Rep. (4)
2	Ukraine (56)	Georgia (67)	Ukraine (40)	Viet Nam (11)
3	Viet Nam (59)	India (72)	Viet Nam (42)	Ukraine (12)
4	Armenia (60)	Moldova, Rep. (74)	Armenia (43)	Armenia (15)
5	Georgia (64)	Morocco (75)	India (59)	Côte d'Ivoire (19)
6	India (66)	Ukraine (76)	Georgia (60)	Tajikistan (29)
7	Morocco (72)	Viet Nam (79)	Philippines (64)	Kenya (30)
8	Philippines (74)	Armenia (80)	Kenya (65)	Philippines (49)
9	Kenya (80)	Philippines (86)	Tajikistan (69)	Indonesia (52)
10	Tajikistan (86)	El Salvador (89)	Morocco (70)	Sri Lanka (54)

Innovation in Moldova – how are we doing globally?

Moldova is among the 10 countries with the highest *Innovation Efficiency Ratios* that are countries that combine certain levels of innovation inputs with more robust output results :

- Luxembourg,
- Malta,
- Iceland,
- Republic of Moldova,
- Switzerland,
- Estonia,
- China,
- Ireland,
- Germany,
- and Sweden.

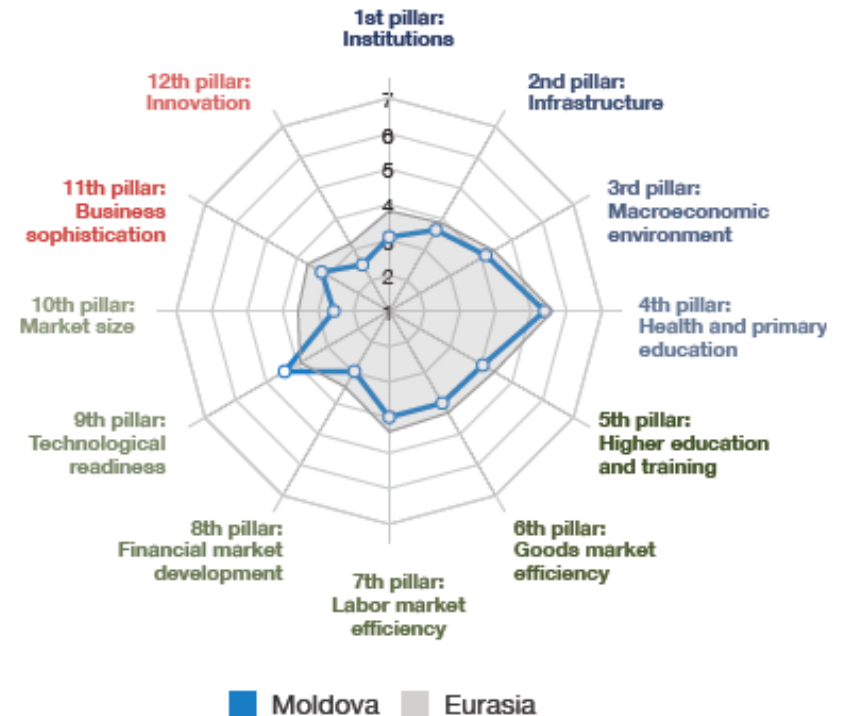
Eight of the top 10 most efficient economies are high-income economies

Source: *The Global Innovation Index 2016*

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Performance overview

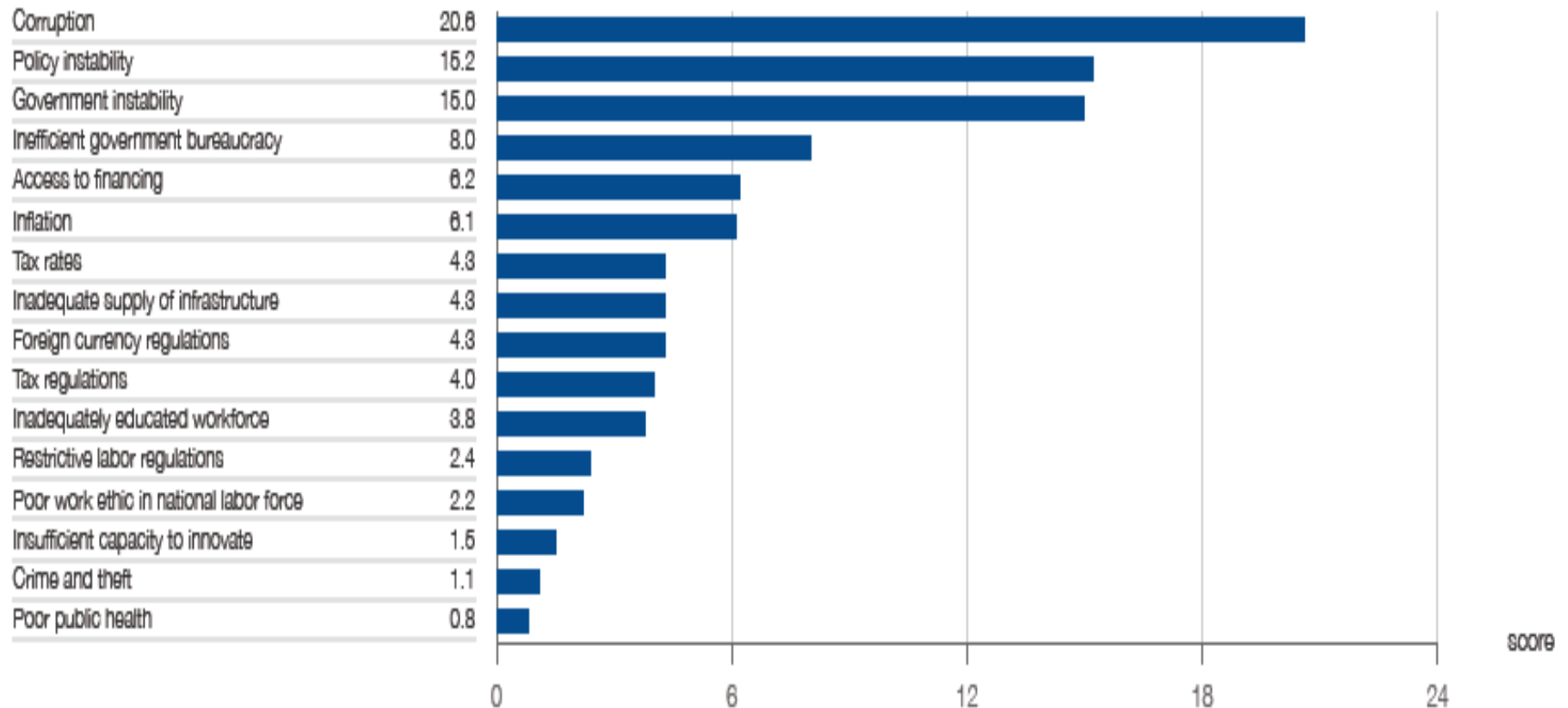
	Rank / 138	Score (1-7)	Trend	Distance from best	Edition	2012-13	2013-14	2014-15	2015-16	2016-17
Global Competitiveness Index	100	3.9			Rank	87 / 144	89 / 148	82 / 144	84 / 140	100 / 138
Subindex A: Basic requirements	101	4.1			Score	3.9	3.9	4.0	4.0	3.9
1st pillar: Institutions	128	3.1								
2nd pillar: Infrastructure	86	3.6								
3rd pillar: Macroeconomic environment	100	4.1								
4th pillar: Health and primary education	95	5.4								
Subindex B: Efficiency enhancers	102	3.7								
5th pillar: Higher education and training	91	4.0								
6th pillar: Goods market efficiency	107	4.0								
7th pillar: Labor market efficiency	91	4.0								
8th pillar: Financial market development	129	3.0								
9th pillar: Technological readiness	58	4.4								
10th pillar: Market size	124	2.6								
Subindex C: Innovation and sophistication factors	131	2.9								
11th pillar: Business sophistication	127	3.2								
12th pillar: Innovation	133	2.5								



Innovation in Moldova – how are we doing globally?

Most problematic factors for doing business

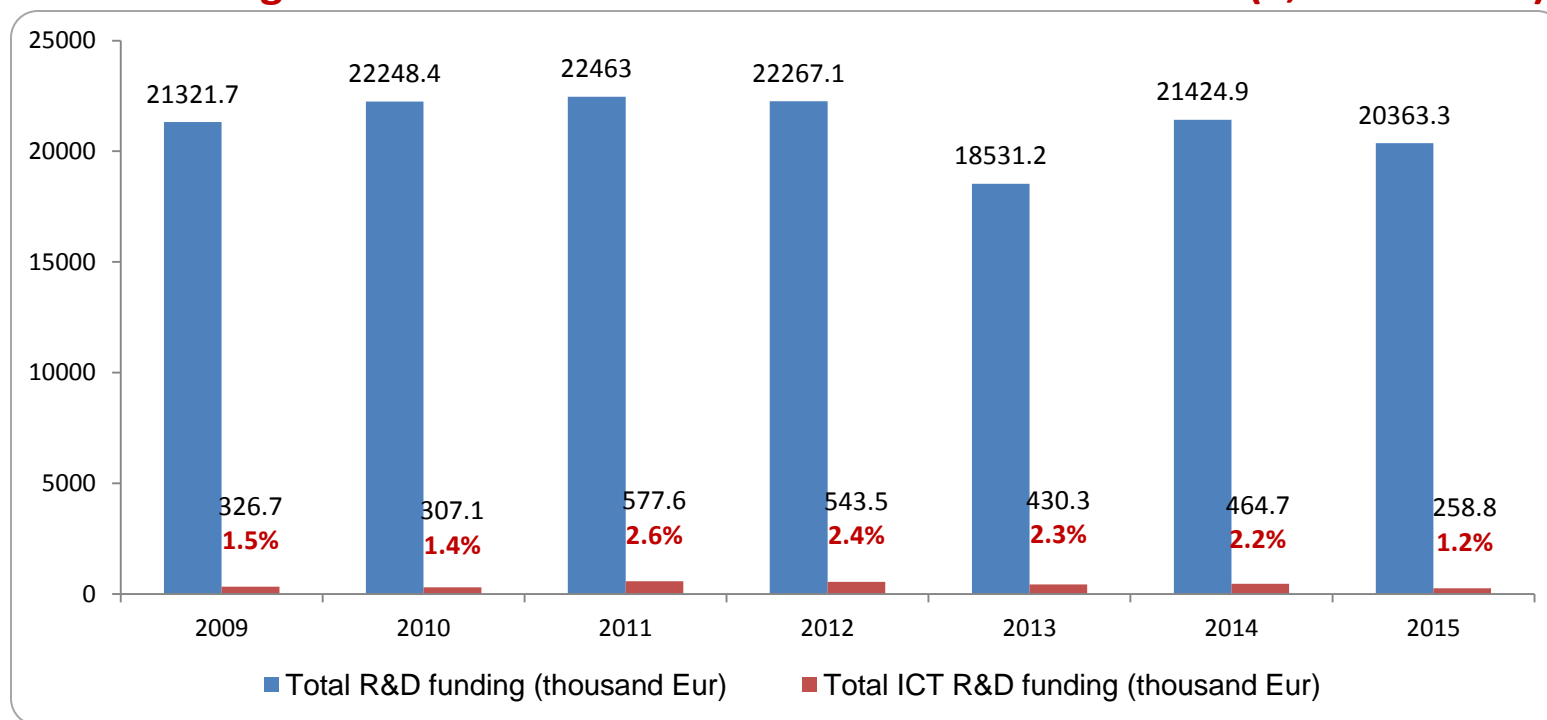
Source: World Economic Forum, Executive Opinion Survey 2018



Note: From the list of factors, respondents to the World Economic Forum's Executive Opinion Survey were asked to select the five most problematic factors for doing business in their country and to rank them between 1 (most problematic) and 5. The score corresponds to the responses weighted according to their rankings.

ICT R&D – public funding

- ✓ Gross Domestic Expenditure on R&D (GERD) as share of GDP in 2015 – **0.35%**
- ✓ Research expenditure in absolute values is low ~ **20 mln Eur in 2015**
- ✓ **Total funding for ICT R&D is VERY LOW ~ 260.000 Eur in 2015 (1,5% of GERD)**



Very few relevant applied research programs (**ONLY 13 ICT R&D projects in 2015**) – ICT R&D is definitely not a priority for public funding

ICT RDI – public funding – innovation incubators

< 10 innovation incubators (II)

- Legal, IPR, marketing consulting
- Accounting and financial services
- Rent for office and production area
- Specialized seminars and workshops.



- II “Nord” (State University “Alecu Russo” from Balti)
- II “Innocenter” (State University from Comrat)
- II “Inventica-USM” (State University of Moldova)
- II „Politehnica” (Technical University of Moldova)
- Moldovan-Lithuanian II "Media Garaj"
- IT4BA - IT for Business Applications - Innovative IT Incubator at Academy of Economic Studies



IT4BA & [Drachmae Project](#) are aligning along a strategic roadmap to create **Moldova’s First Blockchain Student Laboratory**

Horizon 2020 opportunities

Horizon 2020 - the biggest **EU Research and Innovation Framework programme**, with nearly **€80 billion** of funding available over 7 years (**2014 to 2020**)

Leadership in enabling and industrial technologies (LEITs)

(ICT, nanotechnologies, materials, biotechnology, manufacturing, space)

Access to risk finance

Leveraging private finance and venture capital for research and innovation

Innovation in SMEs

Fostering all forms of innovation in all types of SMEs

~55% for ICT

Industrial Leadership
EUR 17.0 billion

~20% for ICT

Societal Challenges
EUR 29.7 billion

~25% for ICT

Excellent Science
EUR 24.4 billion

European Institute of Innovation and Technology
EUR 2.7 billion

Euratom (2014-2018)
EUR 1.6 billion

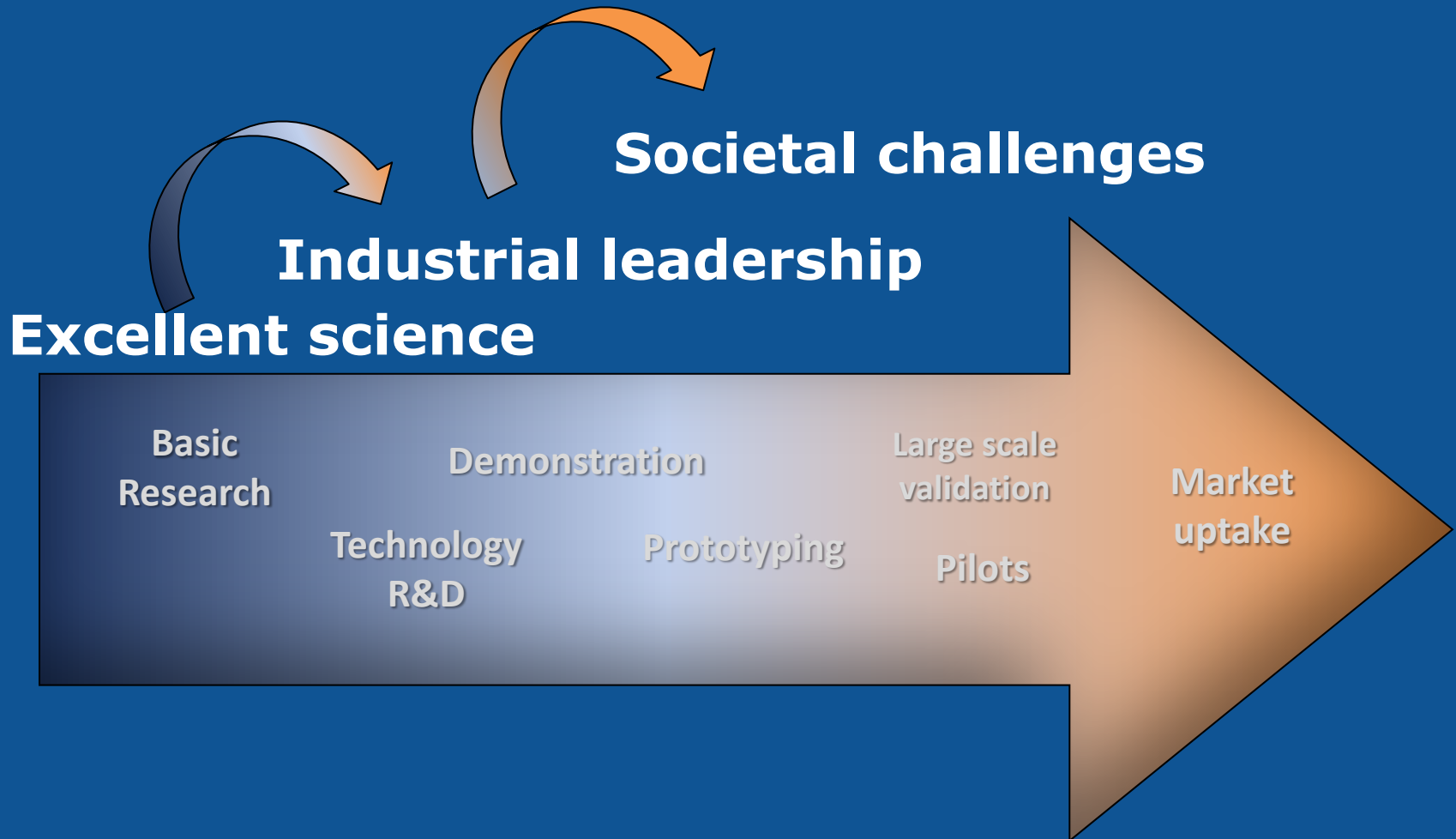
Other
EUR 3.2 billion

Horizon 2020 opportunities

THE FRAMEWORK PROGRAMME FOR RESEARCH AND INNOVATION

HORIZON 2020

Coverage of the full innovation chain



Horizon 2020 – coupling research to innovation



- Support to Research and Innovation **from lab to market**
Use of 'research and innovation actions' and 'innovation actions' depending on the centre of gravity of the targeted activities
- Promotion of a closer relationship between **research and entrepreneurship**
- More support to **SMEs**
- More **evaluators from the business world** involved in the selection process
- About **half of the budget of ICT-related activities** allocated to instruments directly aiming at supporting innovation



Horizon 2020 opportunities



SMEs that are EU-based or established in a country associated to Horizon 2020 can get EU funding and support for innovation projects through a dedicated **SME instrument**

Moldova is associated to Horizon 2020 since July 1, 2014

As part of the Horizon 2020 programme the SME Instrument will invest almost **€ 3 billion in 7500 projects** by 2020 in highly innovative small and medium-sized businesses.

FUNDING

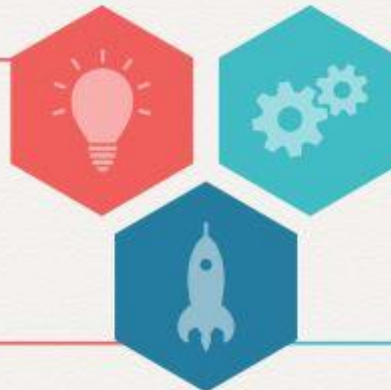
The SME Instrument is an open call with four cut-off dates per year for each Phase.

PHASE1

Concept & feasibility study
Idea to concept

The European Union will provide
€50 000 in funding

Get results in **2 months** and
funding in **4 months**



PHASE2

Demonstration, market replication, R&D and product development

Concept to Market-Maturity

The EU may contribute 70% of total project cost,
between **€0.5 and €2.5 million***

Get results in **4 months** and
get funding in **8 months**

BUSINESS SUPPORT for market launch

Participants at both phases will receive world-class **coaching** benefit from **networking opportunities** with top level investors and potential partners and get support to **launch their product** on European and international markets.

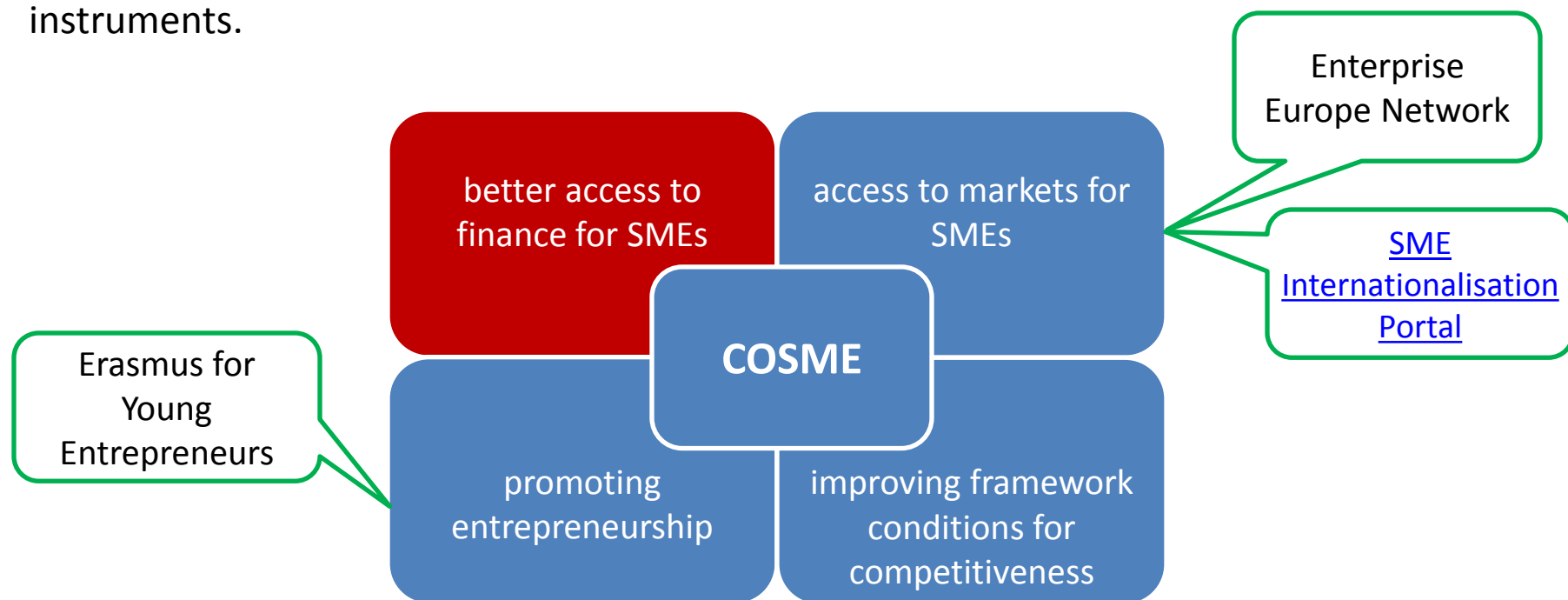


HORIZON 2020 dedicated SME INSTRUMENT 2016-2017 [Calls for proposals](#)

COSME opportunities

COSME is the EU programme for the Competitiveness of Enterprises and SMEs, running from 2014 to 2020, with a budget of €2.3billion.

The **agreement** on the participation of the Republic of **Moldova** to the **COSME** programme was **signed** in 2014, **BUT** Moldova has access to 3 out of 4 COSME instruments.



COSME opportunities



Enterprise Europe Network Center in Moldova – provides support and consulting services to entrepreneurs, Information Days, raising awareness about the opportunities offered by EEN.

National Contact Points

- Organisation for the Development of SMEs
- Chamber of Commerce and Industry
- Agency for Innovation and Technology Transfer
- Technology Transfer Network from Moldova



Other national funding initiatives & opportunities

Emerging innovation ecosystem in Moldova (accelerators, incubators, events, community, co-working, mentoring etc.)



Acceleration program
Founder Institute Chisinau



Garage48 Chisinau
Hackathon



GirlsGoIT – inspiring girls in technology (Summertime, Bootcamp, Annual Forum)



GEN Moldova – Global
Entrepreneurship Network



Chisinau Startup Week



MOLD SEF – Moldova
Science and Engineering Fair

Challenges



Poor dialogue
and cooperation
between
business &
academia

Few incentives
for innovation
activities due to
the lack of
relevant public
policies

Lack of
legislation on
venture capital –
hampers
investors

Lack of official
statistics
regarding
innovation

Few residents
in innovation
incubators and
tech-parks

Lack of relevant
applied
research
programs in ICT

EC Community
Programs are
highly
competitive

Source:

STUDIU privind îmbunătățirea cadrului normativ-legislativ național din domeniul proprietății intelectuale în vederea încurajării activității inovatoare http://agepi.gov.md/sites/default/files/2015/11/Studiu_inovare.pdf

Thank you for your attention!
Questions?