

The logo is a right-angled triangle with a purple border. Inside the triangle, the text "SET PLAN" is in bold black, "Conference" is in regular black, and "2015" is in regular black.

**SET
PLAN**
Conference
2015

Research, innovation
and competitiveness
for the Energy Union

**EFFICIENT COMBINATION
OF VARIOUS FINANCING INSTRUMENTS**

Dr. Tome Antitic, PhD,
Director General of Ruder Boskovic Institute (RBI)

SESSION 7

Financing challenges, possibilities and synergies
between financing instruments
Tuesday 22 September 2015

SET PLAN Conference 2015

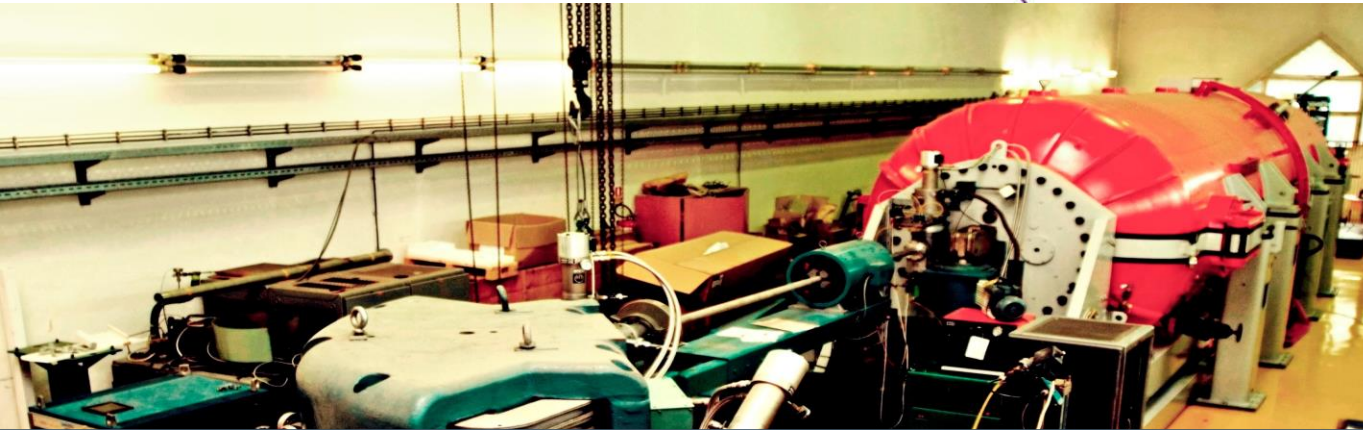
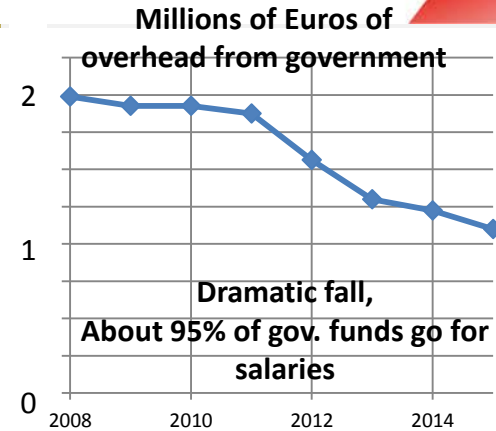
Research, innovation and competitiveness
for the Energy Union

Global Competitiveness Index 2014-2015 Rankings

Country/Economy	Rank (out of 144)	Score (1-7)	2014 score (out of 144)	2014 score (out of 144)
Switzerland	1	5.70	1	5.70
Singapore	2	5.65	2	5.65
United States	3	5.54	3	5.54
Finland	4	5.50	4	5.50
Germany	5	5.49	5	5.49
Japan	6	5.47	6	5.47
Hong Kong SAR	7	5.40	7	5.40
Netherlands	8	5.35	8	5.35
United Kingdom	9	5.41	9	5.41
Sweden	10	5.41	10	5.41
Norway	11	5.35	11	5.35
United Arab Emirates	12	5.33	12	5.33
Denmark	13	5.29	13	5.29
Taiwan, China	14	5.25	14	5.25
Canada	15	5.24	15	5.24
Israel	16	5.24	16	5.24
New Zealand	17	5.20	17	5.20
Belgium	18	5.18	18	5.18
Luxembourg	19	5.17	19	5.17
Malaysia	20	5.16	20	5.16
Austria	21	5.15	21	5.15
Australia	22	5.08	22	5.08
France	23	5.08	23	5.08
Saudi Arabia	24	5.06	24	5.06
Ireland	25	4.98	25	4.98
Korea, Rep.	26	4.98	26	4.98
Israel	27	4.95	27	4.95
China	28	4.92	28	4.92
Estonia	29	4.71	29	4.71
Ireland	30	4.71	30	4.71
Thailand	31	4.68	31	4.68
Portugal	32	4.64	32	4.64
Chile	33	4.60	33	4.60
Indonesia	34	4.57	34	4.57
Spain	35	4.55	35	4.55
Portugal	36	4.54	36	4.54
Czech Republic	37	4.53	37	4.53
Australia	38	4.53	38	4.53
Mauritius	39	4.52	39	4.52
Kazakhstan	40	4.51	40	4.51
Lithuania	41	4.51	41	4.51
Luxembourg	42	4.50	42	4.50
Poland	43	4.48	43	4.48
Bahrain	44	4.48	44	4.48
Turkey	45	4.48	45	4.48
Cyprus	46	4.48	46	4.48
Malta	47	4.45	47	4.45
Paraguay	48	4.43	48	4.43
Italy	49	4.42	49	4.42
Kazakhstan	50	4.42	50	4.42
Costa Rica	51	4.42	51	4.42
Philippines	52	4.40	52	4.40
Russian Federation	53	4.37	53	4.37
Bulgaria	54	4.37	54	4.37
Barbados	55	4.36	55	4.36
South Africa	56	4.35	56	4.35
Israel	57	4.34	57	4.34
Oman	58	4.34	58	4.34
Romania	59	4.34	59	4.34
Hungary	60	4.34	60	4.34
Mexico	61	4.34	61	4.34
Macedonia, FYR	62	4.34	62	4.34
Jordan	63	4.34	63	4.34
Peru	64	4.34	64	4.34
Colombia	65	4.34	65	4.34
Montenegro	66	4.34	66	4.34
Vietnam	67	4.34	67	4.34
Georgia	68	4.34	68	4.34
Sierra Leone	69	4.34	69	4.34
India	70	4.34	70	4.34
Morocco	71	4.34	71	4.34

Great challenges if one wants to
succeed in science in Croatia

Country/Economy	Rank (out of 144)
Sri Lanka	73
Botswana	74
Slovak Republic	75
Ukraine	76
Croatia	77
Guatemala	78
Algeria	79
Uruguay	80
Greece	81
Moldova	82
Iran, Islamic Rep.	83
El Salvador	84



Rudjer Boskovic Institute (RBI) – largest Croatian institute MULTIDISCIPLINARY science institute

130,000 m² area
82 research laboratories
14 research divisions

850 EMPLOYEES
OVER 500 RESEARCHERS AND SCIENTISTS
(3% of Croatian scientists)
OVER 300 PhDs

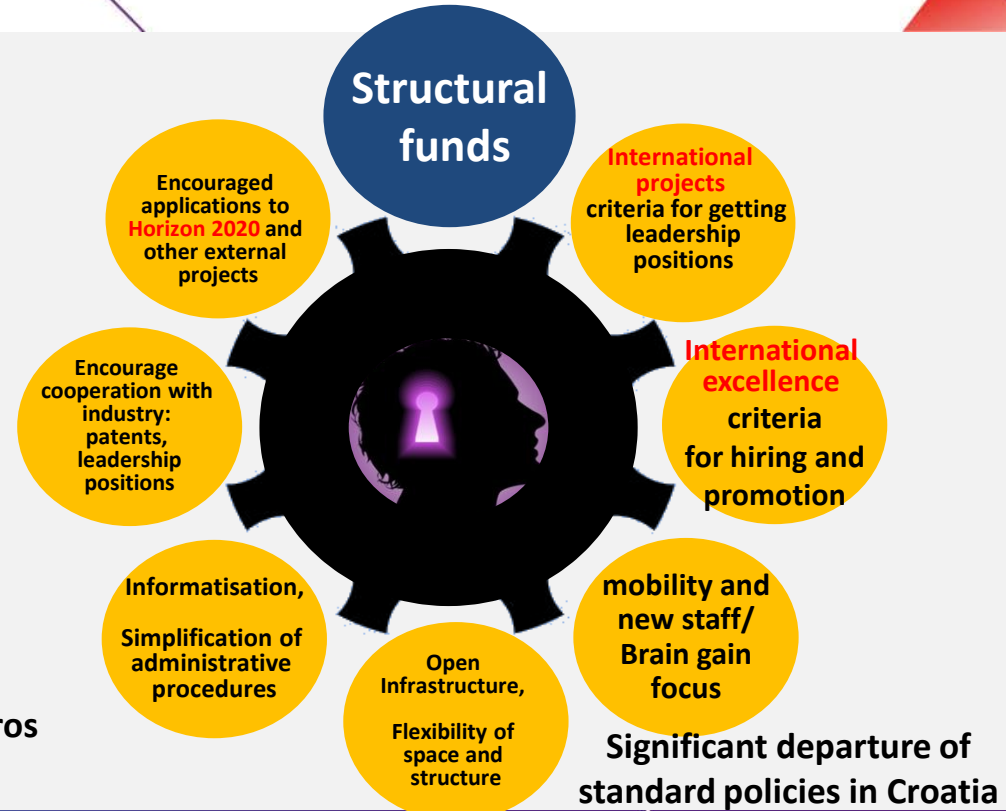
RBI's approach to thrive in
this environment

Structural
funds
EDRF

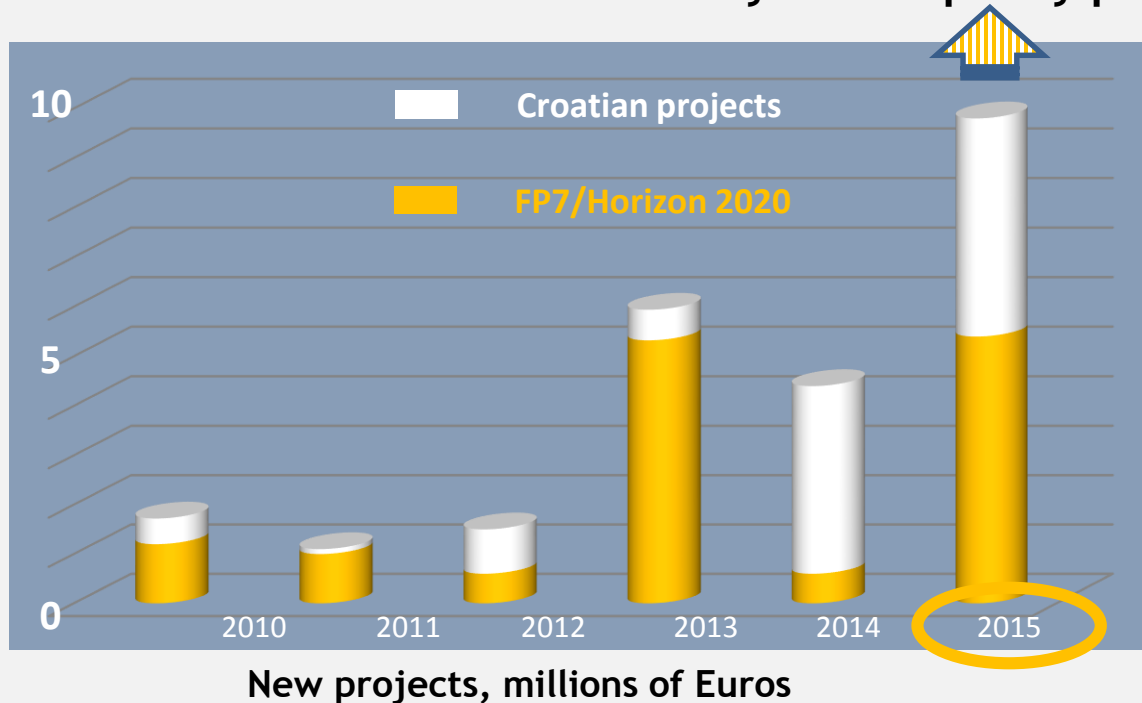
Science – total about 200 Million Euros

Centres of excellence – 50 Million Euros

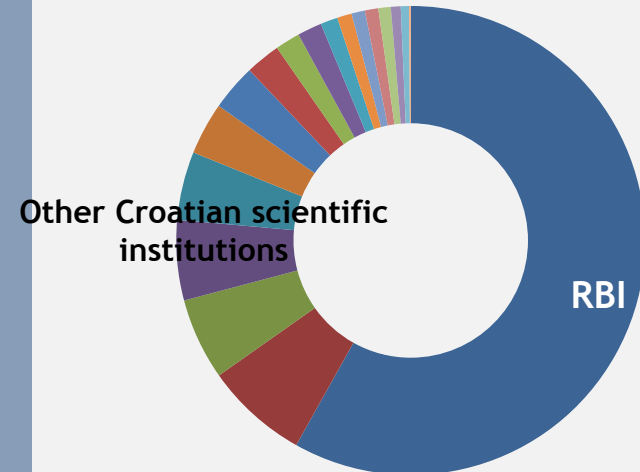
Centres of competence – 100 M Euros



The three-year old policy producing results



Within past year two new ERC-s (Croatia has a total of 4), both expats



Percentage of Horizon2020 funding for all
Croatian scientific institutions

RBI's EBRD structural funds project:

Open Scientific Infrastructure Platform for Innovative Applications in the Economy and Society (O-ZIP)

60 million Euro project that will enable the Croatian industry to be based on science and innovation

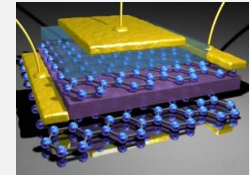
**Part of the Croatian Operational programme
2014 – 2020**

Only explicit STEM project

BIOMEDICINE



ADVANCED MATERIALS



**ENVIRONMENT AND
SEA**

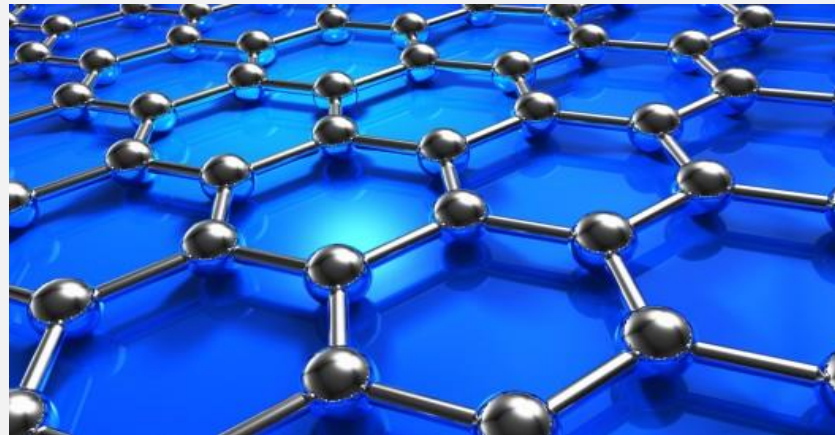


ICT



Centres of Excellence (EBRD): Croatia has 4 such Centres

- one of them is lead by RBI: **Center of excellence for advanced materials and sensors**
- RBI part of two more, and negotiations are underway for RBI become part of the fourth Centre of Excellence in Croatia.



**Only center of excellence
in Croatia in fundamental
sciences**

**Expect about 5-8 million
Euros**

- a) photonics and quantum optics,
- b) graphene and related 2D structures
- c) new functional materials
- d) ion beam physics

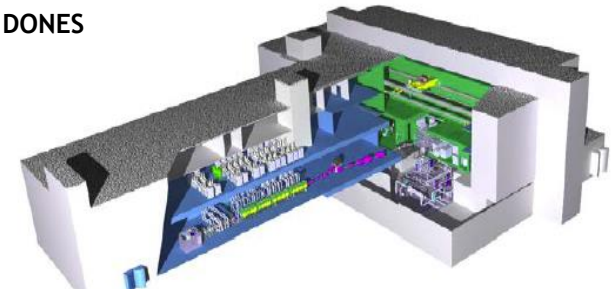
**Active in physics related large
collaborations**



**These activities
will, among other,
make RBI an
important factor for**



DONES



DEMO Oriented Neutron Source (DONES)

Accelerator - neutron source for modification and testing of materials for DEMO, the planned successor to ITER fusion reactor (under construction)

EU investment $\approx$ 400 M €

Estimated start of construction : 2016.

Open possibility for DONES to be located in Croatia! (negotiations under way for 200 million Euros to come from Croatian structural funds)

**Detectors, sensors, materials
Transnational access**

Using various financing instruments, in conjunction with deep structural reforms, RBI well on its way to dramatically increase its (and Croatia's) world-wide research impact, in spite of the low funding levels and an insufficient competitive environment in Croatia for science



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myenergy
Luxembourg



LE GOUVERNEMENT
DU GRAND-DUCHÉ DE LUXEMBOURG
Ministère de l'Économie



LE GOUVERNEMENT
DU GRAND-DUCHÉ DE LUXEMBOURG
Ministère du Développement durable
et des Infrastructures

Département de l'environnement



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DU GRAND-DUCHÉ DE LUXEMBOURG
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