

The Croatian R&I context and the contribution of RTOs



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Global Competitiveness Index 2012-2013

Rankings

Table 3: The Global Competitiveness Index 2012-2013 rankings and 2011-2012 comparisons

GCI 2012-2013					GCI 2012-2013				
Country/Economy	Rank/144	Score (1-7)	Rank among GCI 2011-2012 sample	GCI 2011-2012 score	Country/Economy	Rank/144	Score (1-7)	Rank among GCI 2011-2012 sample	GCI 2011-2012 score
Switzerland	1	5.72	1	1	Ukraine	73	4.14	73	82
Singapore	2	5.67	2	2	Uruguay	74	4.13	74	83
Finland	3	5.55	3	4	Vietnam	75	4.11	75	85
Sweden	4	5.53	4	3	Seychelles	76	4.10	n/a	n/a
Netherlands	5	5.50	5	7	Georgia	77	4.07	76	88
Germany	6	5.48	6	8	Romania	78	4.07	77	77
United States	7	5.47	7	5	Botswana	79	4.06	78	80
United Kingdom	8	5.45	8	10	Macedonia, FYR	80	4.04	79	79
Hong Kong SAR	9	5.41	9	11	Croatia	81	4.04	80	76
Japan	10	5.40	10	9	Armenia	82	4.02	81	92
Qatar	11	5.38	11	14	Guatemala	83	4.01	82	84
Denmark	12	5.29	12	8	Trinidad and Tobago	84	4.01	83	81
Taiwan, China	13	5.28	13	13	Cambodia	85	4.01	84	97
Canada	14	5.27	14	12	Ecuador	86	3.94	85	101
Norway	15	5.27	15	16	Moldova	87	3.94	86	93
Austria	16	5.22	16	19	Bosnia and Herzegovina	88	3.93	87	100
Belgium	17	5.21	17	15	Albania	89	3.91	88	78
Saudi Arabia	18	5.19	18	17	Honduras	90	3.88	89	86
Korea, Rep.	19	5.12	19	24	Lebanon	91	3.88	90	89
Australia	20	5.12	20	20	Namibia	92	3.88	91	83
France	21	5.11	21	18	Mongolia	93	3.87	92	96
Luxembourg	22	5.09	22	23	Argentina	94	3.87	93	85
New Zealand	23	5.09	23	25	Serbia	95	3.87	94	95
United Arab Emirates	24	5.07	24	27	Qatar	96	3.86	95	90
Malaysia	25	5.06	25	21	Jamaica	97	3.84	96	107
Israel	26	5.02	26	22	Gambia, The	98	3.83	97	99
Ireland	27	4.91	27	29	Gabon	99	3.82	n/a	n/a
Bahrain	28	4.87	28	28	Tajikistan	100	3.80	98	105
China	29	4.83	29	30	El Salvador	101	3.80	99	91
Iceland	30	4.74	30	30	Zambia	102	3.80	100	113
Puerto Rico	31	4.67	31	35	Ghana	103	3.79	101	114
Oman	32	4.65	32	32	Bolivia	104	3.78	102	103
Chile	33	4.65	33	31	Dominican Republic	105	3.77	103	110
Estonia	34	4.64	34	33	Kenya	106	3.75	104	102
Bahrain	35	4.63	35	37	Egypt	107	3.73	105	94
Spain	36	4.60	36	38	Nicaragua	108	3.73	106	115
Kuwait	37	4.56	37	34	Guyana	109	3.73	107	109
Thailand	38	4.52	38	39	Algeria	110	3.72	108	87
Czech Republic	39	4.51	39	36	Libya	111	3.71	n/a	n/a
Panama	40	4.49	40	49	Cameroon	112	3.69	109	116
Poland	41	4.46	41	41	Libya	113	3.68	n/a	n/a
Italy	42	4.46	42	43	Suriname	114	3.68	110	112
Turkey	43	4.45	43	59	Nigeria	115	3.67	111	127
Bahamas	44	4.42	44	42	Paraguay	116	3.67	112	122
Lithuania	45	4.41	45	44	Senegal	117	3.66	113	111
Azerbaijan	46	4.41	46	55	Bangladesh	118	3.65	114	108
Malta	47	4.41	47	51	Berlin	119	3.61	115	104
Brazil	48	4.40	48	63	Barbados	120	3.60	116	120
Portugal	49	4.40	49	45	Ethiopia	121	3.55	117	106
Indonesia	50	4.40	50	46	Cape Verde	122	3.55	118	119
Kazakhstan	51	4.38	51	72	Uganda	123	3.53	119	121
South Africa	52	4.37	52	50	Pakistan	124	3.52	120	118
Mexico	53	4.35	53	58	Nepal	125	3.49	121	125
Mauritius	54	4.35	54	54	Venezuela	126	3.46	122	124
Latvia	55	4.35	55	64	Kyrgyz Republic	127	3.44	123	126
Slovenia	56	4.34	56	57	Mali	128	3.43	124	128
Costa Rica	57	4.34	57	61	Malawi	129	3.38	125	117
Greece	58	4.32	58	47	Madagascar	130	3.38	126	130
India	59	4.32	59	56	Cote d'Ivoire	131	3.36	127	129
Hungary	60	4.30	60	48	Zimbabwe	132	3.34	128	132
Peru	61	4.28	61	67	Burkina Faso	133	3.34	129	136
Bulgaria	62	4.27	62	74	Mauritania	134	3.32	130	142
Rwanda	63	4.24	63	70	Swaziland	135	3.28	131	134
Jordan	64	4.23	64	71	Timor Leste	136	3.27	132	131
Philippines	65	4.23	65	75	Lesotho	137	3.19	133	135
Iran, Islamic Rep.	66	4.22	66	82	Mozambique	138	3.17	134	133
Russian Federation	67	4.20	67	85	Chad	139	3.05	135	142
Sri Lanka	68	4.19	68	52	Yemen	140	2.97	136	138
Colombia	69	4.18	69	68	Guinea	141	2.90	n/a	n/a
Morocco	70	4.15	70	79	Haiti	142	2.90	137	141
Slovak Republic	71	4.14	71	69	Sierra Leone	143	2.82	n/a	n/a
Montenegro	72	4.14	72	60	Burundi	144	2.78	138	140



Romania

78

Botswana

79

Macedonia, FYR

80

Croatia

81

Armenia

82

Guatemala

83

Trinidad and Tobago

84

Cambodia

85

Ecuador

86

STRUCTURAL FUNDS: OPERATIONAL PROGRAMME UNDER THE 'INVESTMENT FOR GROWTH AND JOBS' 2014-2020

OP approved by EC in December 2014, Smart Specialisation about to be submitted

About 650 million Euros for improving the industry through research and innovations

210 million Euros to increase capacity for research, development and innovation)

about 110 million Euros already allocated in OP (RBI, children's hospital)

50 million Euros for Centres of excellence

4 already decided, 2 more this year

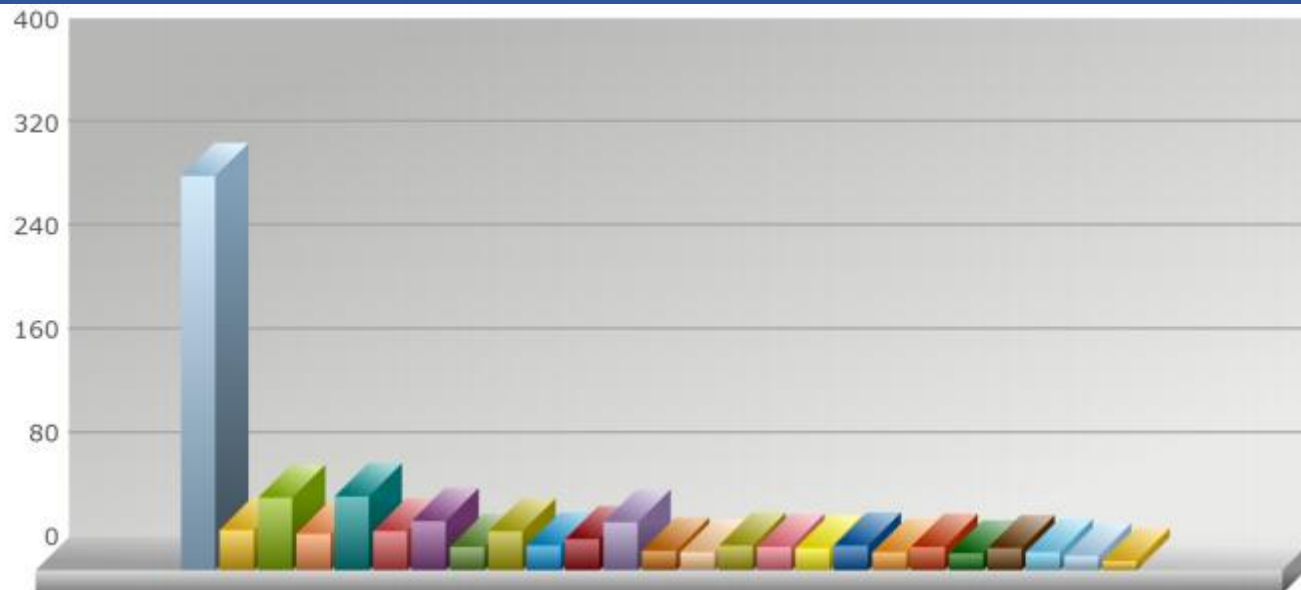
110 million Euros for centres of competence

calls in a few weeks

200 million Euros for specific projects of cooperation between industry and scientific and technical institutions

Expect call by end of year

25 research institutes in Croatia



 Institut Ruđer Bošković	 Hrvatski veterinarski institut, Zagreb
 Institut za medicinska istraživanje i medicinu rada	 Poljoprivredni institut Osijek
 Hrvatski geološki institut	 Institut društvenih znanosti Ivo Pilar
 Hrvatski šumarski institut, Jastrebarsko	 Institut za oceanografiju i ribarstvo
 Hrvatski Institut za povijest, Zagreb	 Institut za fiziku
 Ekonomski institut, Zagreb	 Institut za hrvatski jezik i jezikoslovlje
 Institut za poljoprivredu i turizam, Poreč	 Institut za jadranske kulture i melioraciju krša, Split
 Institut za etnologiju i folkloristiku	 Institut za društvena istraživanja, Zagreb
 Institut za razvoj i međunarodne odnose, Zagreb	 Institut za povijest umjetnosti
 Institut za migracije i narodnosti, Zagreb	 Institut za antropologiju
 Institut za filozofiju	 Institut za arheologiju
 Staroslavenski institut	 Institut za turizam, Zagreb
	 Institut za javne financije

RBI and Brodarski Institut – EARTO members



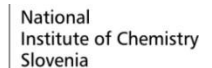
BRODARSKI INSTITUT



23 COUNTRIES

350 RTOs

NETWORK
150 000
RESEARCHERS
ENGINEERS &
TECHNICIANS
SHARING IDEAS
& INFORMATION

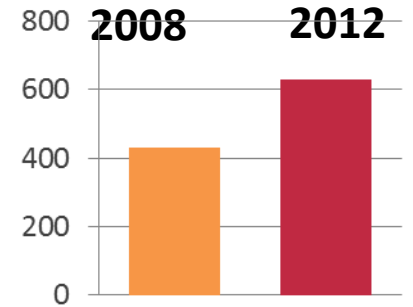


RBI overview

6% of Croatian researchers

20 % of Croatian publications

~ 50% of Croatian registered scientific equipment



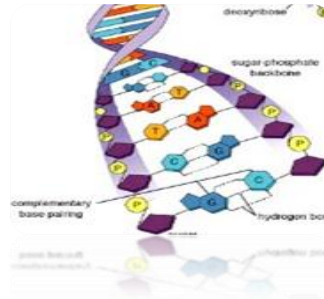
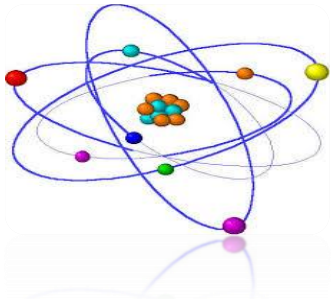
PHYSICS

CHEMISTRY

LIFE SCIENCES

ENVIRONMENT

ICT



Laser/atomic
Electronics

Material chemistry

Material physics

Organic chemistry
and biochemistry

Experimental
physics

Molecular medicine

Sea and
environment

Theoretical physics

Physical chemistry

Molecular biology

Center for sea
research

NMR

Computer science

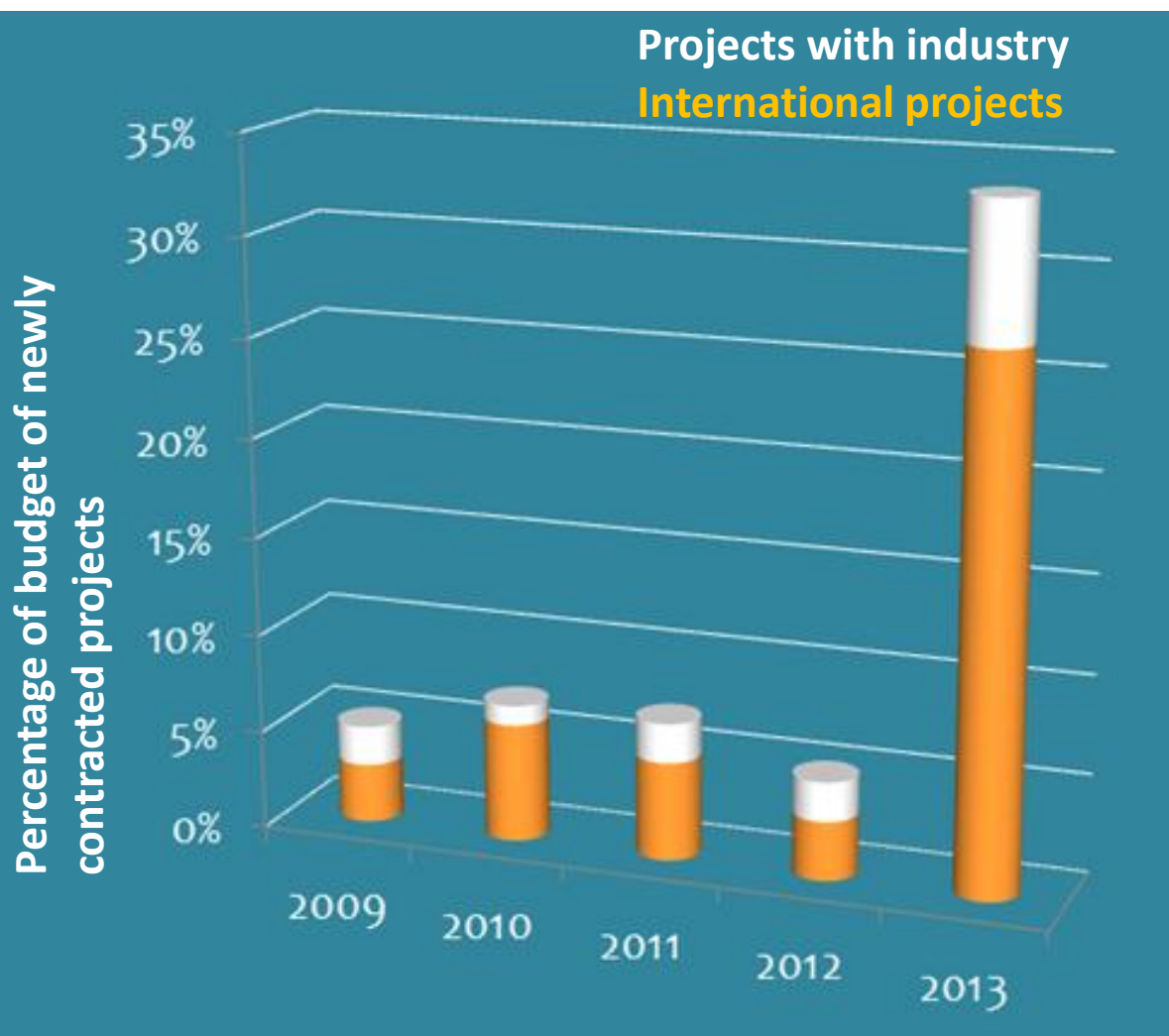
PROJECTS – leading Croatian institution in many categories

33 FP7
9 Horizon 2020

20 IAEA
5 INTERREG/IPA
2 NATO

...

Part of 5 Structural funds
project proposals



In 2015 already a record
amount of projects
contracted through
Horizon 2020

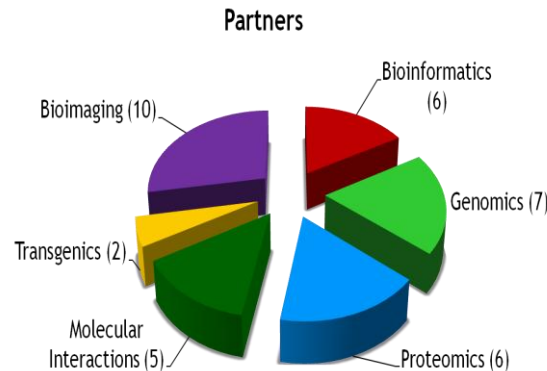
– more than 6 million
Euros

Upgrade of Research Equipment



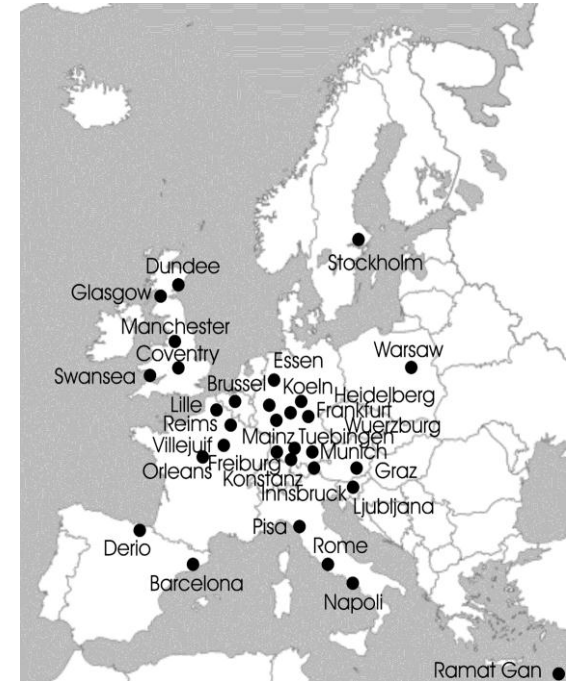
1.4 MEUR

Upgrade of Human Resources



1.0 MEUR

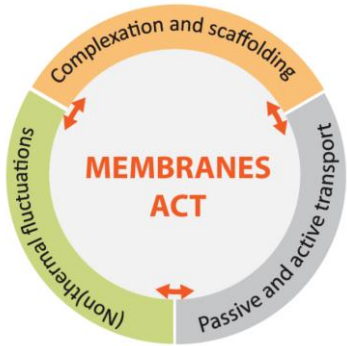
Twinning (Interdisciplinary)



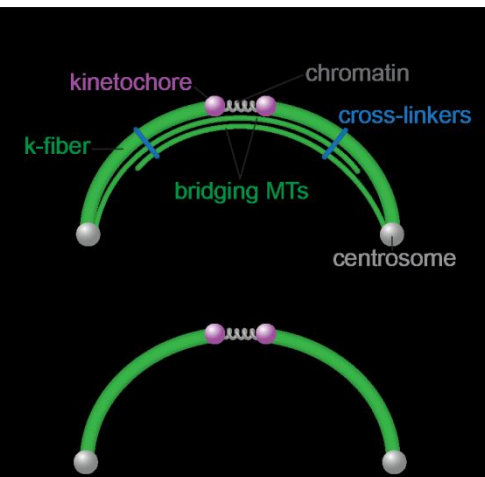
1.0 MEUR

InnoMol: Enhancement of the Innovation Potential in SEE through New Molecular Solutions in Research and Development

ERC grants at RBI – 2 out 4 in Croatia, both within past year

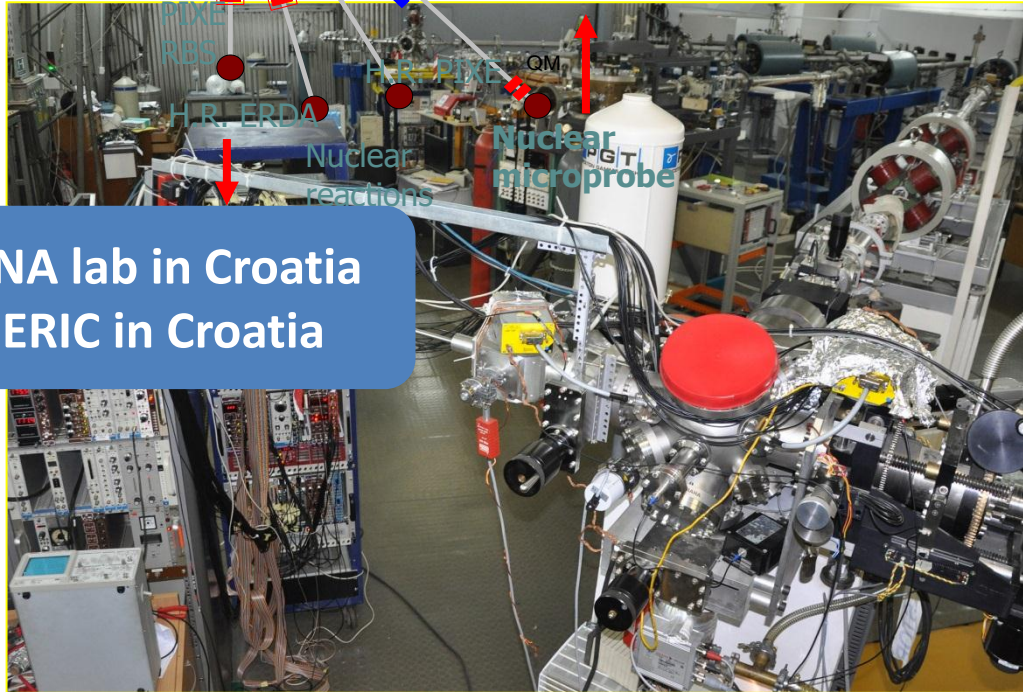
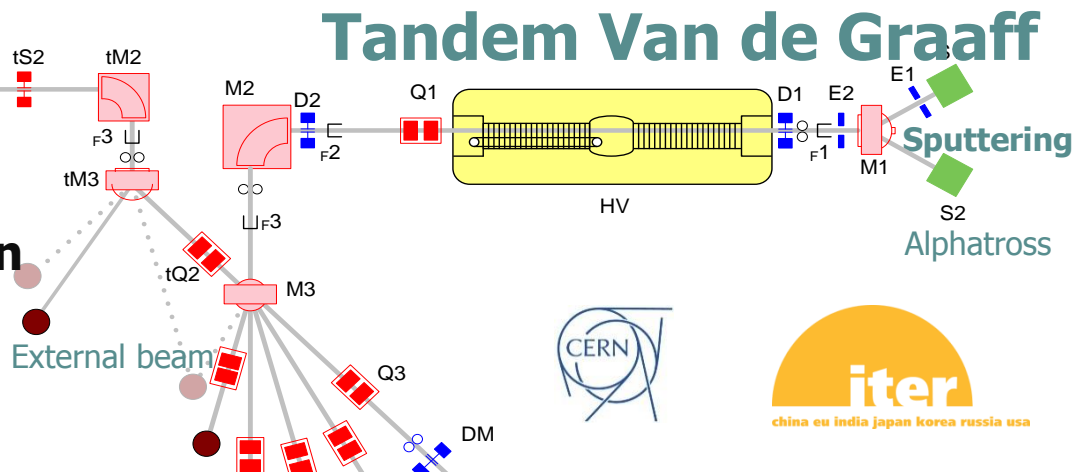
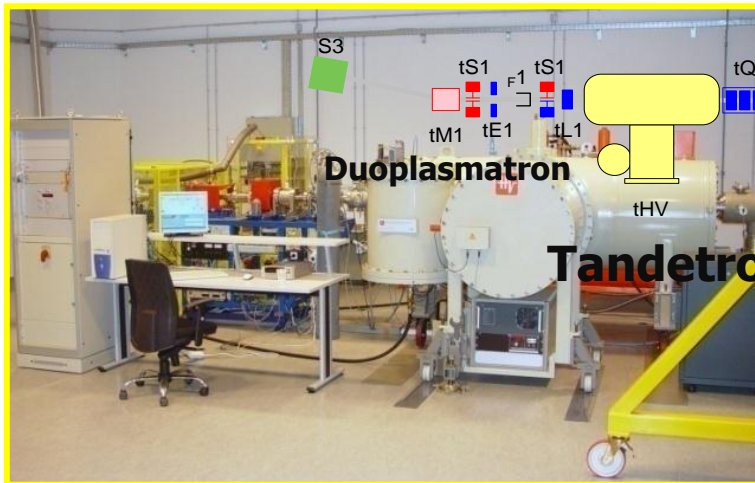


MEMBRANES ACT/Ana Suncana Smith: Biological Membranes in Action: A Unified Approach to Complexation, Scaffolding and Active Transport



NewSpindleForce/Iva Tolic: A new class of microtubules in the spindle exerting forces on kinetochores

LOCAL ACCELERATOR COMPLEX – LARGEST EXPERIMENTAL COMPLEX IN CROATIA

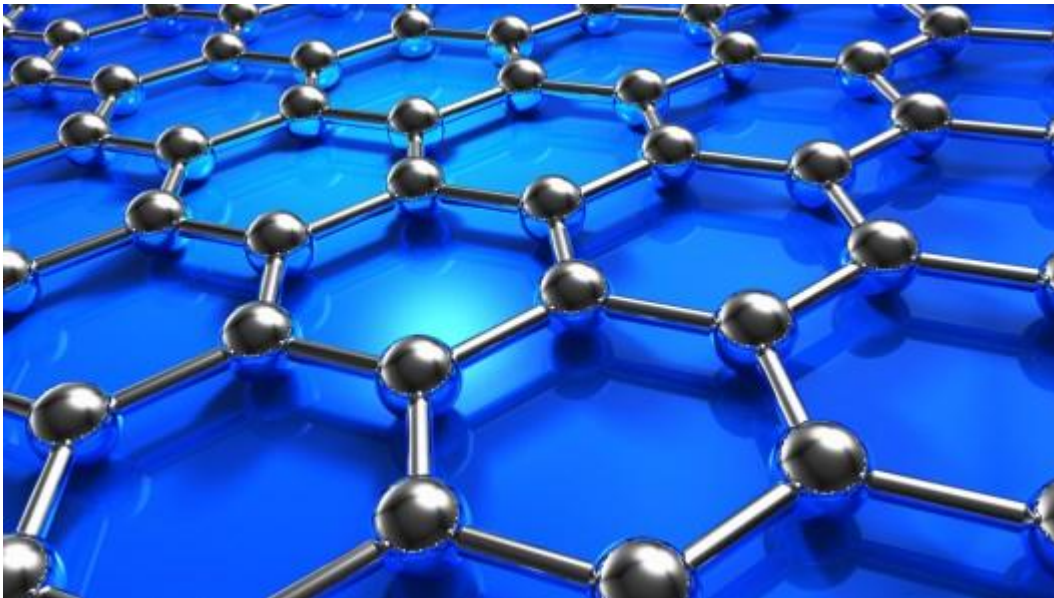


Only TNA lab in Croatia
Only ERIC in Croatia

Center of excellence for advanced materials and sensors

synthesis of advanced materials and structures, particularly those that can be applied in other domains of basic and applied science

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



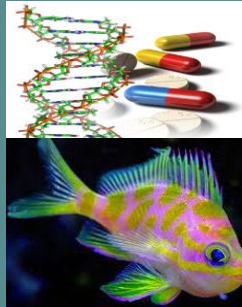
INSTITUT ZA FIZIKU

Expect about 5 to 8
million Euros



OPEN SCIENTIFIC INFRASTRUCTURAL PLATFORM FOR INNOVATIVE APPLICATIONS IN THE ECONOMY AND SOCIETY(O-ZIP)

BIOMEDICINE

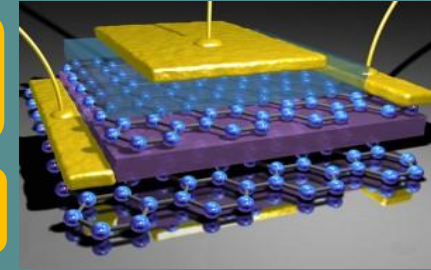


ENVIRONMENT AND SEA



SCI Infrastructure

ADVANCED MATERIALS



ICT

capital equipment

A 55 million Euro Structural Funds project to create the basis for an innovation based economy in Croatia, by focusing on RBI's most propulsive areas



Delays due to start of funding from World Bank /STP-II for the feasibility project

IRB's INTERSECTOR CENTER FOR ADVANCED (KET) TECHNOLOGIES

'Cross sector' center – multidisciplinary horizontal platform for development of a KET technologies – a 10 million Euro project concept

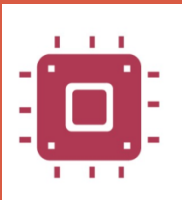
S3



Bio/Chem

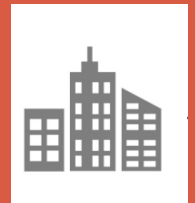


ICT



Advanced materials

clusters of competitiveness and excellence



Horizon 2020 – Widespread in Croatia

No approved Teaming projects (even though several excellent proposals)...

One ERA Chair in the pilot call in 2013

One Horizon 2020 ERA Chair (RBI)

Expect numerous twinning proposals

