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Europejski Program na rzecz Innowacji i Badań w Metrologii

– szanse dla polskiej metrologii



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European Metrology Programme for Innovation and Research **EMPIR**



Metrology Research for Europe

Contributions
to Science, Innovation and
Grand Challenges
under Horizon 2020

Oparty o nowy Program Ramowy
HORIZON 2020



Ukierunkowany na:

European Metrology Programme
for Innovation and Research
(EMPIR)



Fundamental
Scientific
Metrology

Grand
Challenges

Innovation

Pre- and
Co-normative
Research

Capacity
Building

Modules of the proposed



European Metrology Programme for Innovation

and Research (EMPIR) (taken from EMPIR proposal of 12 Oct. 2012)

Module 1: Science	Fundamental scientific metrology
	Grand challenges Energy, Environment, Health
Module 2: Innovation	Industry-driven joint research
	Technology-transfer projects
Module 3: Pre-normative research	Pre- and co-normative metrology R&D
Module 4: Capacity building	R&D for measurement capabilities
	Capacity building projects
Programme Implementation and Management	



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EMPIR – założenia finansowe

Całkowity budżet **600 M€**, w tym **300 M€** wkładu UE

10 % wkładu własnego NMI/DI w **gotówce** (na działania niezwiązane wprost z JRPs)

Finansowanie instytucji **spoza NMI/DI** w wysokości **90 M€** (tylko przez UE) wg zasad „Horizon 2020” – **100 % kosztów bezpośrednich** (w tym personelu) oraz **25 % kosztów pośrednich**

Zadeklarowany przez GUM udział w wysokości **2,5 M€** (**5 M€**)
(w EMRP A169 – **0,42 M€**)



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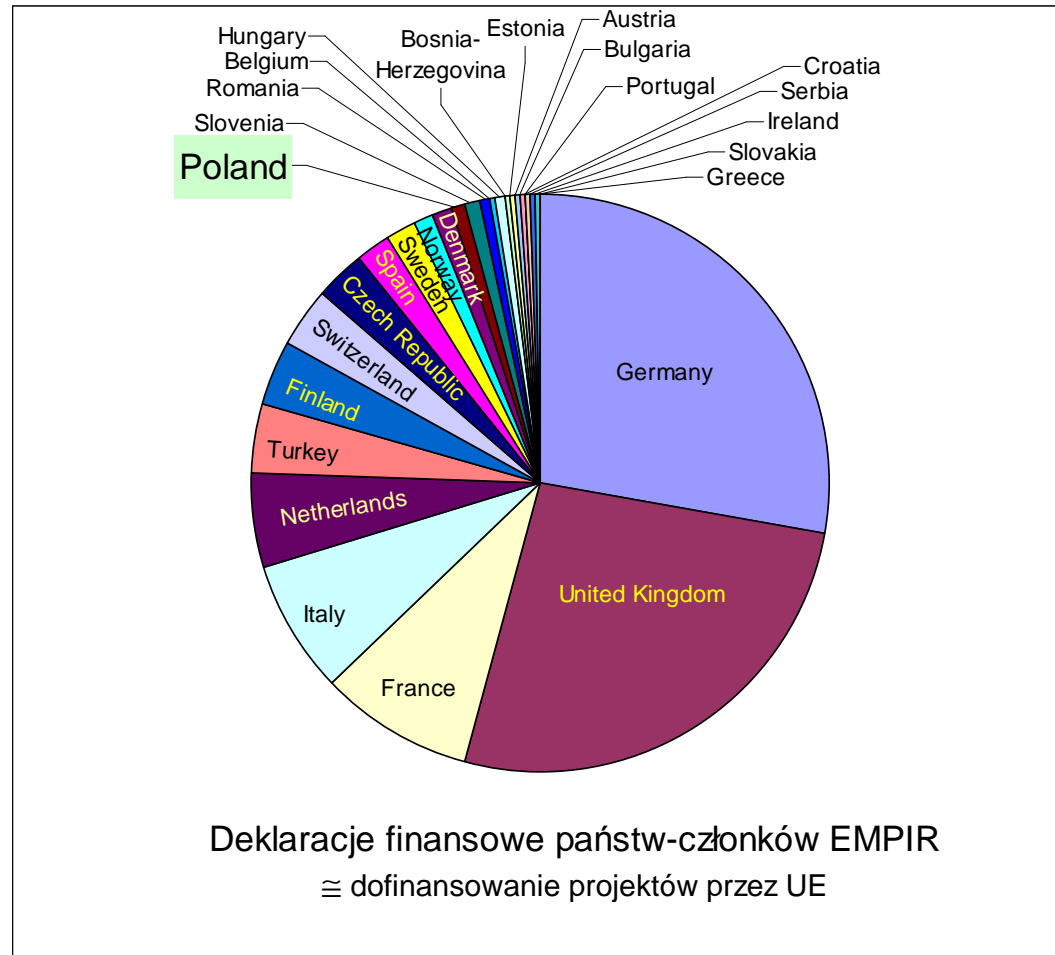


1	Germany	88 mln EUR
2	United Kingdom	83 mln EUR
3	France	27 mln EUR
4	Italy	24 mln EUR
5	Netherlands	17 mln EUR
6	Turkey	12 mln EUR
7	Finland	12 mln EUR
8	Switzerland	11 mln EUR
9	Czech Republic	8,6 mln EUR
10	Spain	6 mln EUR
11	Sweden	5,131 mln EUR
12	Norway	4 mln EUR
13	Denmark	4 mln EUR
14	Poland	2,5 mln EUR
15	Slovenia	2,249 mln EUR
16	Romania	2 mln EUR
17	Belgium	1,2 mln EUR
18	Hungary	1,05 mln EUR
19	Bosnia-Herzegovina	0,92 mln EUR
20	Estonia	0,91 mln EUR
21	Austria	0,84 mln EUR
22	Bulgaria	0,84 mln EUR
23	Portugal	0,84 mln EUR
24	Croatia	0,7 mln EUR
25	Serbia	0,7 mln EUR
26	Ireland	0,6 mln EUR
27	Slovakia	0,2 mln EUR
28	Greece	0 mln EUR

RAZEM

315,74 mln EUR

Udział finansowy w EMPIR





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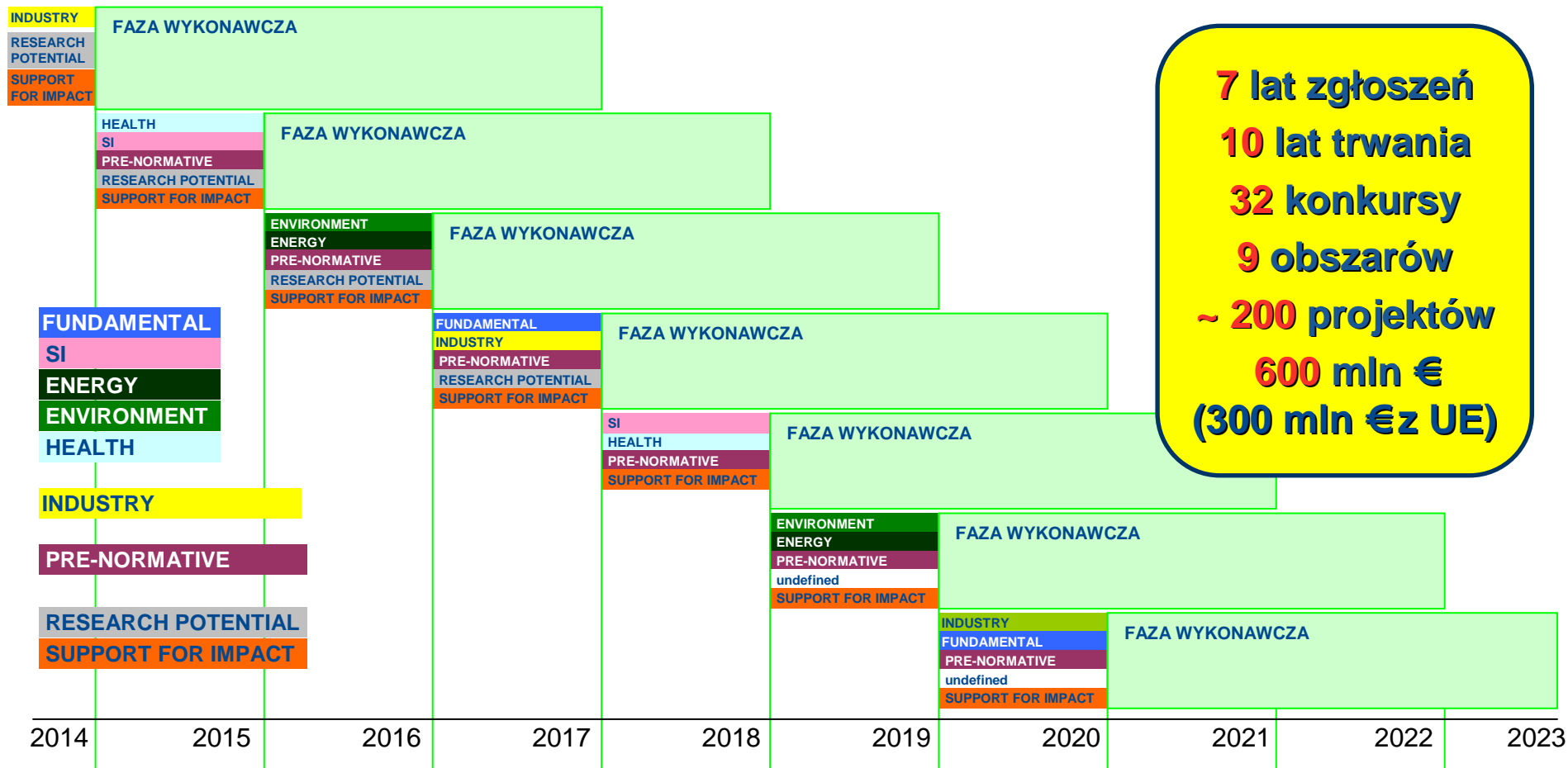
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Harmonogram konkursów EMPIR



7 lat zgłoszeń
10 lat trwania
32 konkursy
9 obszarów
~ 200 projektów
600 mln €
(300 mln € z UE)



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Budżety konkursów EMPIR (1)

Year	Call	Indicative budget -NMI/DIs M€	Indicative budget -non NMI/DIs M€	Total M€
2014	INDUSTRY	16,03	6,87	22,89
	RESEARCH POTENTIAL	1,25	0,14	1,39
	SUPPORT FOR IMPACT	0,44	0	0,44
2015	HEALTH	13,1	7,05	20,16
	SI	9,46	2,37	11,83
	PRE-NORMATIVE	3,32	1,42	4,74
	RESEARCH POTENTIAL	2,09	0,23	2,32
	SUPPORT FOR IMPACT	0,44	0	0,44
2016	ENVIRONMENT	13,28	7,15	20,43
	ENERGY	13,28	7,15	20,43
	PRE-NORMATIVE	3,41	1,46	4,87
	RESEARCH POTENTIAL	2,09	0,23	2,32
	SUPPORT FOR IMPACT	0,44	0	0,44



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Budżety konkursów EMPIR (2)

2017	FUNDAMENTAL	9,48	6,32	15,81
	INDUSTRY	17,32	7,42	24,74
	PRE-NORMATIVE	3,41	1,46	4,87
	RESEARCH POTENTIAL	2,09	0,23	2,32
	SUPPORT FOR IMPACT	0,44	0	0,44
2018	SI	16,56	4,14	20,7
	HEALTH	13,46	7,25	20,7
	PRE-NORMATIVE	3,41	1,46	4,87
	SUPPORT FOR IMPACT	0,44	0	0,44
2019	ENVIRONMENT	13,28	7,15	20,43
	ENERGY	13,28	7,15	20,43
	PRE-NORMATIVE	3,41	1,46	4,87
	undefined	2,19	0	2,19
	SUPPORT FOR IMPACT	0,44	0	0,44
2020	INDUSTRY	10,13	4,34	14,47
	FUNDAMENTAL	9,39	6,04	15,43
	PRE-NORMATIVE	3,5	1,5	5
	undefined	8,75	0	8,75
	SUPPORT FOR IMPACT	0,44	0	0,44
Overall totals		210	90	300



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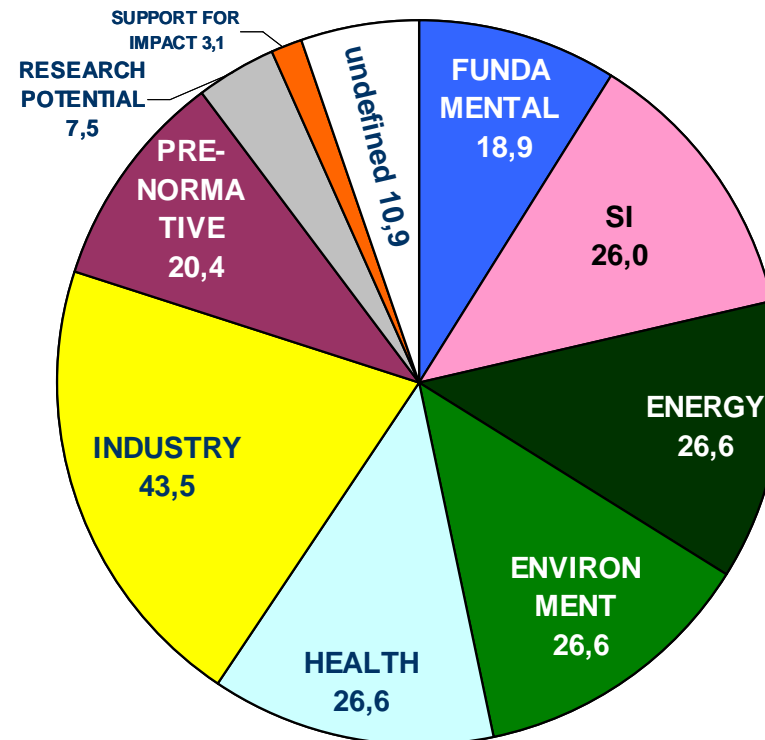
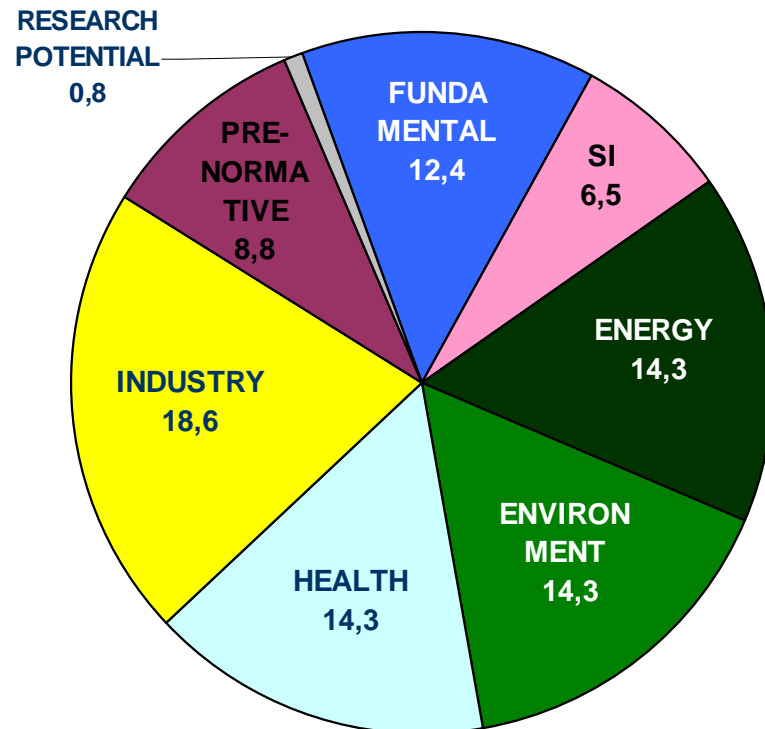
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Dofinansowanie konkursów EMPIR w mln €

Podmioty spoza kręgu NMI/DI
90 mln € z UE

NMI/DI
210 mln € z UE





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Co trzeba wiedzieć aspirując do JRPs w EMPIR (1)

Home | EMPIR Calls | **Downloads** | Contact

Search | About EURAMET | Referees REGISTER HERE

Home | Downloads

Call Guides and Templates | Contract Guidelines | Reporting Templates | Contractual Documents | Publicity Resources

Call Guides and Templates

- [Guide 1: Admissibility and Eligibility for EMPIR Calls](#)
- [List 1a: NMs and DIs and, where known to EURAMET, the associated legal entities that can participate in EMPIR projects](#)
- [List 1b: Country information](#)
- [Guide 2: Submitting PRT](#)
- [Template 2: PRT Template](#)
- [Guide 3: Prioritising PRTs](#)
- [Guide 4: Writing Joint Research Projects \(JRPs\)](#)
- [List 4: Checklist for Template 4 and Template 5](#)
- [Template 4: JRP protocol](#)
- [Guide 5: Submitting administrative data for EMPIR Projects](#)
- [Template 5: Project Administrative Data](#)
- [Guide 6: Evaluating EMPIR Projects](#)
- [Form 6a: Code of Conduct and Declaration](#)
- [Form 6b: Payment to Referees](#)
- [Form 6c: JRP Evaluation](#)
- [Form 6d: SIP Evaluation](#)
- [Guide 7: Writing Support for Impact Projects \(SIPs\)](#)
- [Template 7: SIP protocol](#)
- [Guide 8: Registering as a Referee for EMPIR](#)
- [Template 8: Referees datasheet](#)

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**Przewodniki i formularze na
www.msu.euramet.org**



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Co trzeba wiedzieć aspirując do JRPs w EMPIR (2)

Home | **EMPIR Calls** | Downloads | Contact

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Home > Calls > Call 2014 - Industry

Call 2014 - Industry

Call 2014 - Research Potential

Call 2014 - Support for Impact

Stage 1 | Stage 1 Submit | **Stage 2** | Stage 2 Submit | Budget | Partnering | Connections

Stage 2 of Call 2014 - Industry is NOW OPEN

OPENING DATE: 24 June 2014

CLOSING DATE: 9 October 2014

The EMPIR Committee has selected thirty three research topics (SRTs) for Industry from the potential metrology research topics (PRTs) submitted at Stage 1. Some SRTs contain inputs from more than one single PRT as similar ideas have been combined where appropriate. These SRTs are the basis of the Joint Research Projects (JRPs) which consortia will be invited to submit

To find a consortium planning to bid click [HERE](#)

Some countries have declared a strategic priority for inclusion in particular projects. Coordinators are requested to seek the involvement of partners from these countries. The list of priorities is [HERE](#)

Selected Research Topics (SRTs)
SRT-i01: Advanced 3D chemical metrology for innovative technologies
SRT-i02: Metrology for industrial pure water applications
SRT-i03: Metrology for innovation in pharmaceutical formulation and manufacturing
SRT-i04: Metrology for innovative nanoparticles
SRT-i05: Metrology for additive manufacturing production assurance
SRT-i06: Dimensional metrology for high-aspect-ratio micro-nozzles
SRT-i07: Vision based dimensional metrology
SRT-i08: Metrology for highly-parallel manufacturing

msu.euramet.org/calls.html

Info o konkursach na
www.msu.euramet.org



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Co trzeba wiedzieć aspirując do JRPs w EMPIR (3)

EURAMET: European Association of National Metrology Institutes: Calls and Projects - Mozilla Firefox

Home > EMRP > EMRP Calls and Projects

EMRP Calls and Projects

The EMRP will have a total value of 400 M € over an approximately seven year period. It will provide the opportunity for the user community and other stakeholders to directly suggest topics that the metrology community should address with its resources. Additionally, researcher grant schemes will be available to bring external expertise into the research projects, and there will be the opportunities for organisations to participate in the research projects with their own resources where it is mutually beneficial to do so.

The following calls have been announced and a selection of Joint Research Projects (JRPs) will be funded for each. To find out more about each call and the research topics within, please use the links in the table below.

Programme Structure

Call Year	Field	Status
IMERA-Plus		
2007	SI and Fundamental Health Length Electricity and Magnetism	Projects completed >>
EMRP		
Call 2009	Energy	Projects in progress >>
Call 2010	Industry Environment	Projects in progress >>
	Health II	

Info o konkursach EMRP na
www.euramet.org



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Co trzeba wiedzieć aspirując do JRPs w EMPIR (4)

- Research EMPIR**
- Research EMRP
 - About the EMRP
 - Focus Energy
- Calls and Projects**
 - iMERA-Plus
 - EMRP Call 2009
 - EMRP Call 2010**
 - EMRP Call 2011
 - EMRP Call 2012
 - EMRP Call 2013
- Researcher Grants
- EMRP Survey 2013
- Events
- Publicity
- EMRP Contacts
- EMRPOne
- Events**
- General Assembly
- Documents & Publications
- Contact Search
- Technical Committees
- TC Project Database
- Members only

The aim of this call is to advance measurement science in the following areas:

- **Metrology for Industry** »
- **Metrology for Environment** »



**Info o konkursach EMRP na
www.euramet.org**

Industry Joint Research Projects (JRPs)

Number	Short Name	Full Name	JRP Coordinator
IND01	HiTeMS	High temperature metrology for industrial applications (>1000 °C) »	Prof Graham Machin (NPL)
IND02	EMINDA	Electromagnetic Characterization of Materials for Industrial Applications up to Microwave Frequencies »	Bob Clarke (NPL)
IND03	HighPRES	High pressure metrology for industrial applications »	Dr Wladimir Sabuga (PTB)
IND04	MetroMetal	Ionizing Radiation Metrology for Metallurgical Industry »	Dr Eduardo García-Toraño (CIEMAT)
IND05	MeProVisc	Dynamic Mechanical Properties and Long-term Deformation Behaviour of Viscous Materials »	Dr Nigel M Jennett (NPL)



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**Program
Celowy**
np. Industry
2014

PRTs
~ 80

SRTs
~ 30

JRPs
10 ~ 15

Sposób wyboru JRPs w EMPIR

Taki sam przebieg jak w EMRP

1. Rozpoczęcie zgłaszania propozycji tematów badawczych PRTs
(mogą zgłaszać wszyscy). ~ luty

2. Selekcja najlepszych PRTs, wyłonienie propozycji wspólnych
tematów badawczych SRTs, ogłoszenie ws. tworzenia konsorcjów
dla realizacji wspólnych projektów badawczych JRPs. ~ **czerwiec**

Partnering conferences

3. Konferencja Przeglądowa z udziałem ekspertów zewnętrznych
wybranych przez KE z europejskiej bazy danych ekspertów
określa punktację, Komitet EMRP/EMPIR ustala liczbę
realizowanych JRPs, Rada ds. Badań zatwierdza listę JRPs.
*W realizacji projektów mogą brać udział wszyscy, ale korzystać
z dofinansowania UE mogą tylko uprawnieni. ~ listopad*



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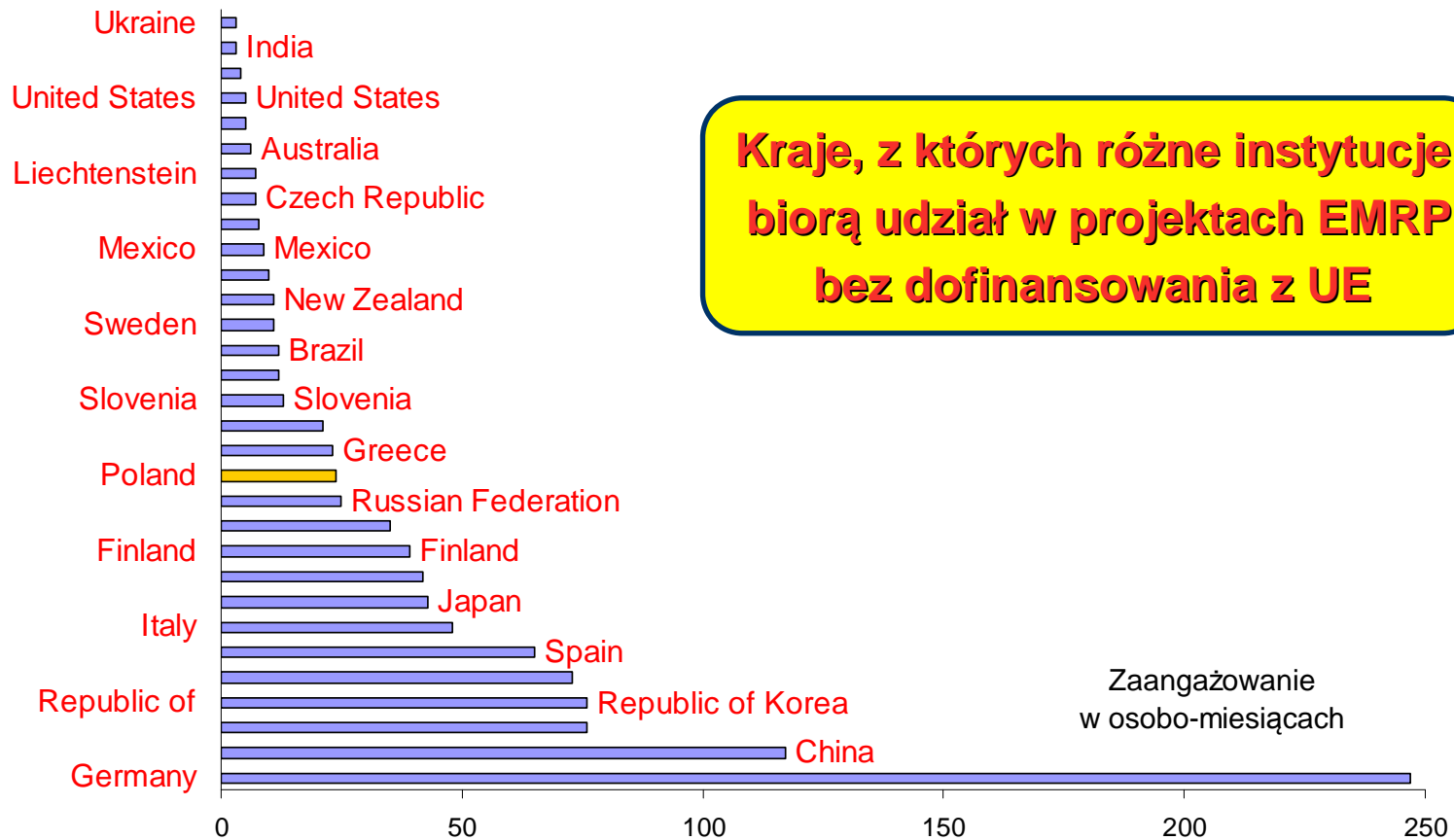
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Dlaczego warto próbować włączyć się do EMPIR (1)



Kraje, z których różne instytucje biorą udział w projektach EMRP bez dofinansowania z UE

Zaangażowanie w osobo-miesiącach



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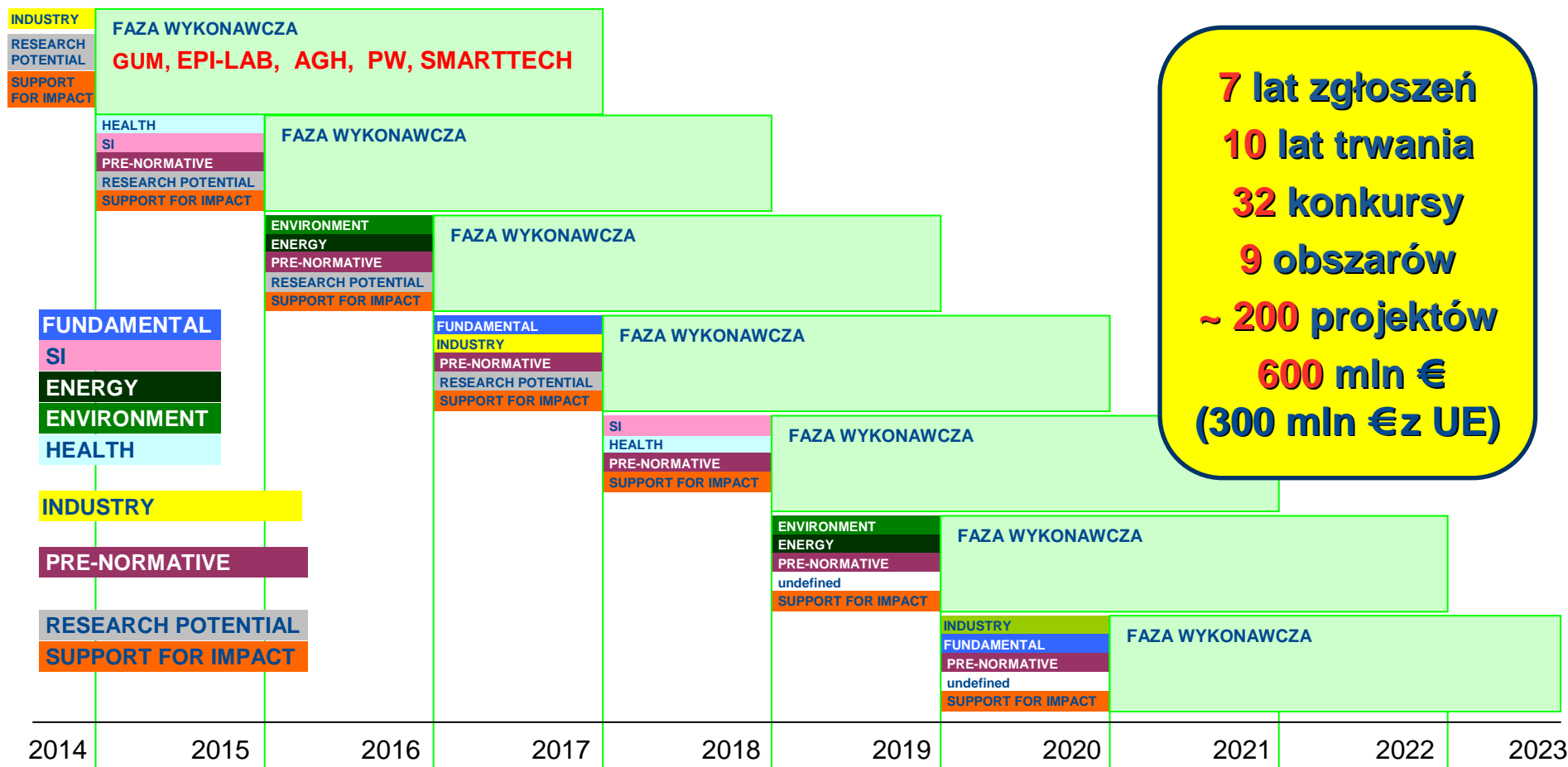
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Dlaczego warto próbować włączyć się do EMPIR (2)



7 lat zgłoszeń
10 lat trwania
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600 mln €
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Udział Polski w EMPIR - Industry 2014

CALL	NMI	NMI/DI/Z	Tytuł PRT	SRT	Tytuł SRT/JRP
I N D U S T R Y	PTB	GUM	Empowering vision based dimensional metrology to meet the requirements of modern industrial production	i07	Vision based dimensional metrology
	NPL	GUM	Metrology of industrially-relevant properties of largescale graphene and other novel 2D materials	i15	Metrology for graphene characterisation
	NPL	EPI LAB	Metrology of industrially-relevant properties of largescale graphene and other novel 2D materials	i15	Metrology for graphene characterisation
	NPL	GUM	High Frequency and Dynamic Measurements of Functional Materials	i12	High frequency and dynamic measurements of functional materials
	INRI M	AGH	Next Generation Time and Frequency dissemination through Optical Fibres for industrial applications	i32	Next generation time and frequency dissemination through optical fibres
	NPL	PW SMAR TTECH	Novel adaptive optics for production line measurement of industrial large area freeform surfaces	i10	Traceable asphere and freeform metrology



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Dziękuję za uwagę

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www.gum.gov.pl

emrp.info@gum.gov.pl