

EaPPLUS

Eastern Partnership +



SPIRE projects: experience, case studies, opportunities

Jaroslav PIEKARSKI
National Contact Point in Poland

*Horizon 2020 Information Day, Georgia
21 November 2017*

NCP in Poland



- Operates since 1999.
- Hosts **PL National Contact Points** for whole **HORIZON 2020**, **EURATOM** and **IMI 2** (*staff: ~50 of which ~30 NCPs*).
- Cooperates with the **European Commission** on **topics** and **rules of participation** in its programmes (*experts to Programme Committees*).
- Cooperates with **ministries**, national executive **agencies** and **institutions** that **shape the R&I sector** in Poland.
- Supports the **mobility** of scientists through **Euraxess** network
- Cooperates with **NCPs in other countries** (i.a. NCP networking projects).

NCP in Poland



Jaroslaw PIEKARSKI

- **Coordinator of NCP activity** and **PC Member** for **FP7 NMP** area (2007-2013)
- **Coordinator of NCP activity** and **PC Member** for **H2020 NMBP** area (since 2014), and NCP for SC5 and FET
- **Coordinator** of the **FUMAT 2011** (Future Materials) Conference organized under PL presidency in the EU Council
- Member of NMP TeAm – the NCP NMBP networking project

Sustainable Process Industry

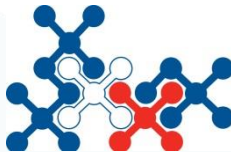
SPIRE is a contractual Public-Private Partnership dedicated to *innovation in resource and energy efficiency* enabled by the **process industries**.



EU budget: 900M€ for H2020 (2014 – 2020)

Key targets: *30% less energy consumption;*
20% fewer raw materials;
40% CO₂ equiv. footprint reduction

- *Creating knowledge, skills and high-tech jobs;*
- *Increased use of renewable feedstocks;*
- *Efficient sorting, separation and recovery technologies.*



Sustainable Process Industry

Implementation:



www.spire2030.eu

*Based on European Commission and stakeholders agreement representing eight sectors of the process industry: **chemicals, cement, ceramics, minerals, steel, non-ferrous metals, industrial water and process engineering.***

*The technological objectives are guided by a **2014-2020 multi-annual roadmap developed by the research and industrial stakeholders** and **validated in a Europe-wide open consultation process.***

*Calls are implemented according to **normal HORIZON 2020 procedure***

Resource Efficiency in the whole production process

Input

Process

ENERGY

RAW MATERIAL

Solvents,
Catalysts &
Auxiliaries

WATER

PACKAGING

CO₂

PRODUCTS

By-products

Residues

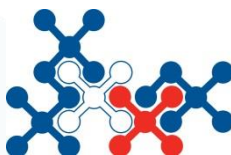
WASTE WATER

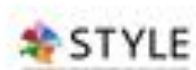
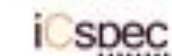
Landfill Waste

Gaseous
Emissions

Recycling

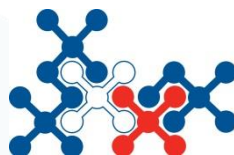
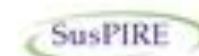






2014

2015





COCOP

Smartrec

INSPIRE

CarbonNext



INSPIREWater

REHAP

ReWaCEM

IMPROOF

KARMA2020

CoPro

DRYficiency

DREAM

FUDIPO

2016

2017

ENSUREAL

MORSE

SUPRIME

RECODE

Carbon4PUR



SIDERWIN



PORTABLECRAC

NOVUM

ECCO

ICO2CHEM

SPRING

SCALER



<https://www.spire2030.eu/>

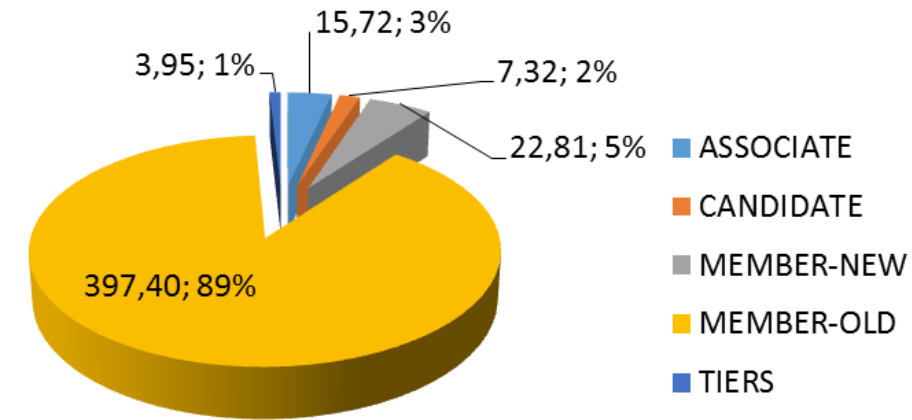
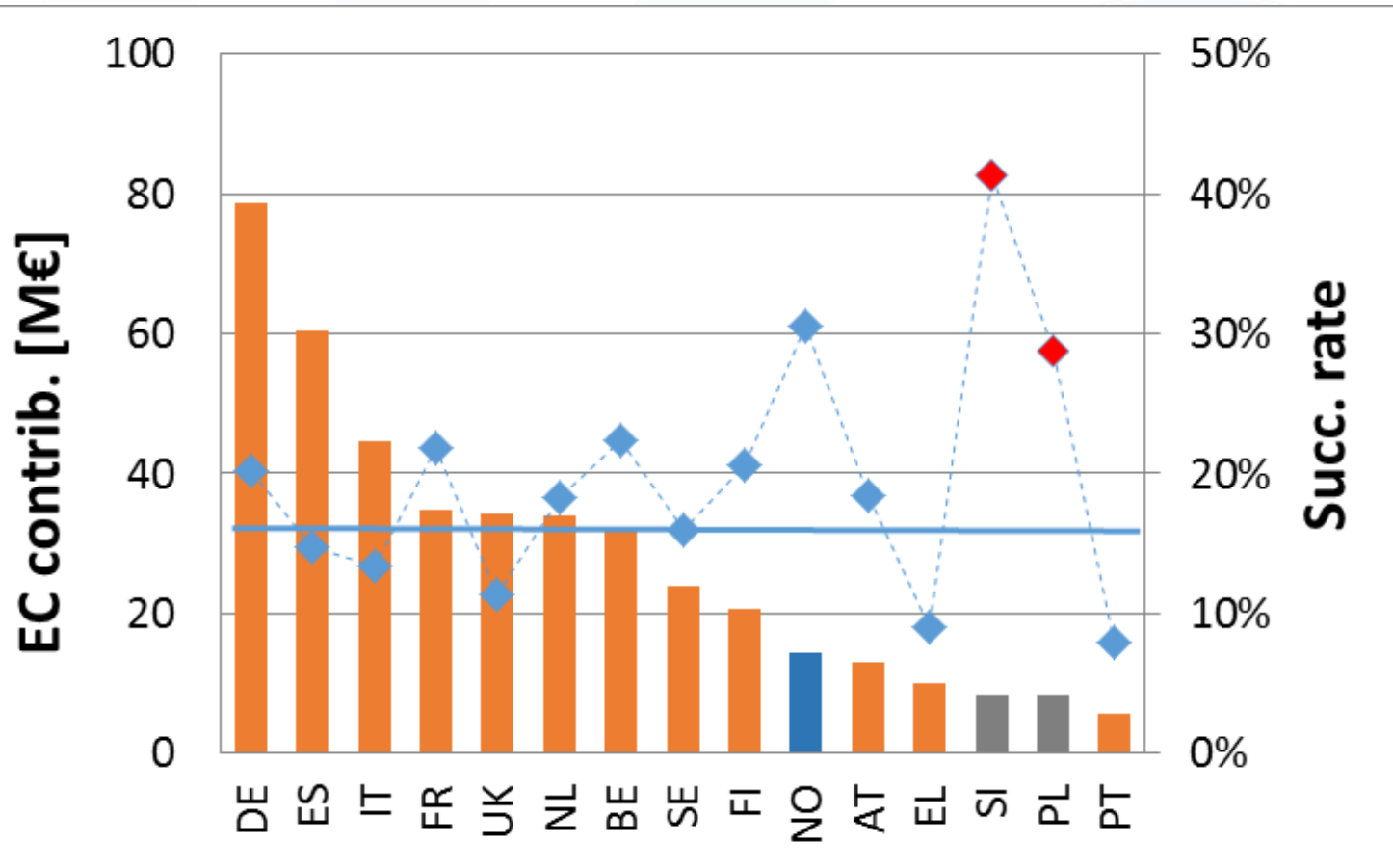
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NMP TeAm

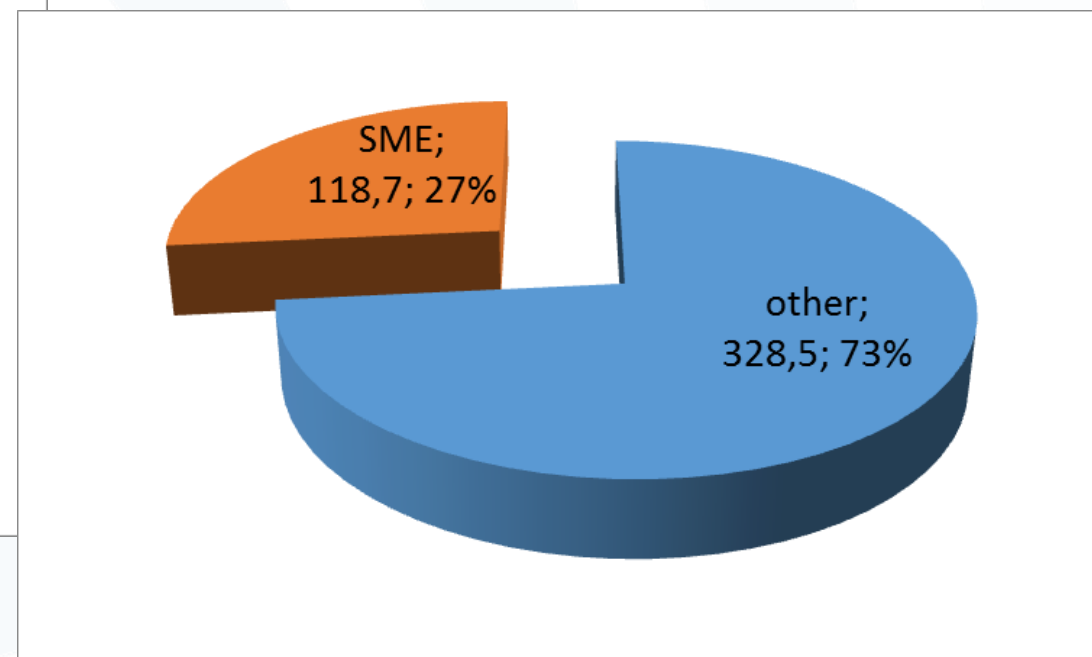
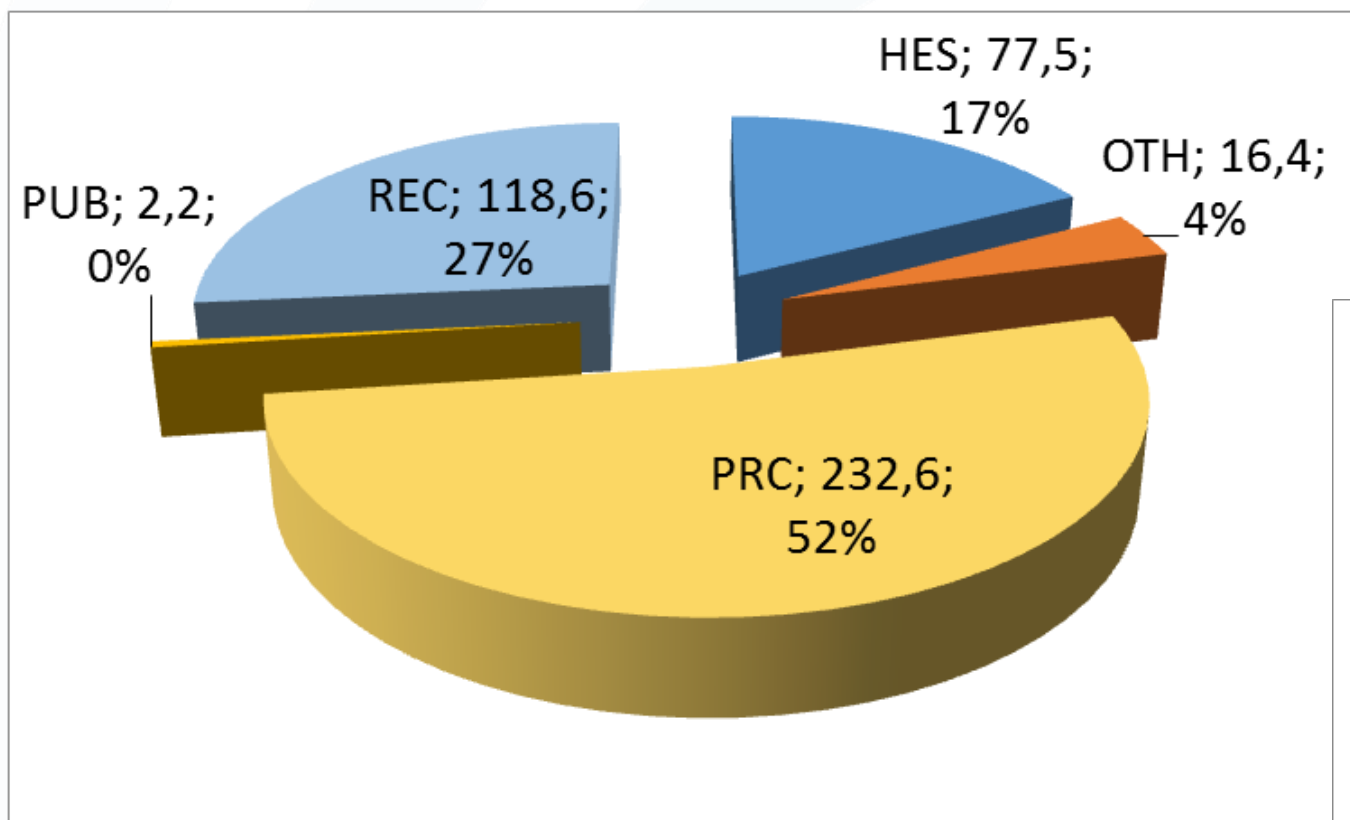


SPIRE Projects – EC Contribution



EC contribution 2014-17: **447 M€**
 Av. EC contrib / project: **6,4 M€**
 Av. EC contrib / partner: **0,43 M€**
 Av. success rate: **16%**

SPIRE Projects – Type of organisations



SPIRE Projects – Top 10 organisations

Organisation	Country	EC contrib. [M€]
VTT	FI	10,7
FRAUNHOFER	DE	9,6
TECNALIA	ES	8,6
SINTEF	NO	7,0
CEA	FR	6,6
UNIVERSITEIT GENT	BE	5,3
SWEREA MEFOS AB	SE	4,8
ARCELORMITTAL MAIZIERES RESEARCH SA	FR	4,2
VDEH-BETRIEBSFORSCHUNGSINSTITUT GMBH	DE	4,1
IRIS	ES	4,0

SPIRE Projects – PL Participation

H2020-SPIRE-2014

- **DISIRE** (KGHM, KGHM Cuprum, WrUT)
- **iCspec** (Airoptic, WrUT)
- **RECOBA** (MINKON SP ZOO)

H2020-SPIRE-2015

- **ADIR** (IMN)
- **EPOS** (CEMEX Polska)
- **MAESTRI** (IZNAB, LEAN Enterprise)

H2020-CIRC-2016TwoStage

ZERO BRINE (SUT)

H2020-SPIRE-2016

KARMA2020 (IBChW)

VULKANO (IEn)

H2020-SPIRE-2017

CO2EXIDE (AGH)

ENSUREAL (LUVENA, ODLEWNIE POLSKIE)

NOVUM (ABB sp. z o.o, AGH, RMA sp z o.o.)

process control, energy and resource management systems, industrial symbiosis, recovery technologies, valorization of bio-resources, industrial furnaces

Call ID: H2020-SPIRE-2014

EU contribution: EUR 5 587 932

Coordinator: SIEMENS (DE)

Objective:

to develop gas analyzers for fast in-line multi-component monitoring of gas compositions in a process stream and to replace currently employed analyzers ...



Nanosystems and
Technologies
GmbH
nanoplus

Julius-Maximilians-
**UNIVERSITÄT
WÜRZBURG**



Wrocław
University
of Technology

AIR OPTIC™
REAL TIME GAS ANALYZERS

 **mir
sense**

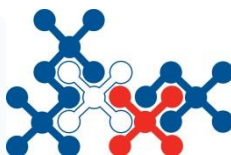
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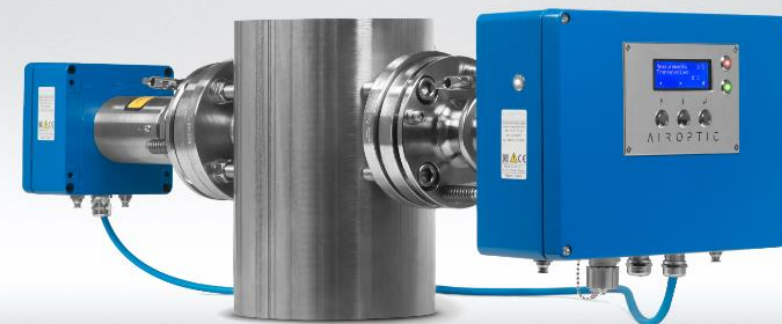


NMP TeAm



GasEye Cross Duct in-situ tunable laser gas analyzers for industrial process monitoring

FOR IN-SITU DETECTION OF CO, CO₂, HCL, HF, O₂, HCOH, C1-C5, NH₃, SO₂, SO₃, H₂O AND OTHERS DIRECTLY IN PROCESS STREAMS



Novel integrated refurbishment solution as a key path towards creating eco-efficient and competitive furnaces

Call ID: H2020-SPIRE-2016

EU contribution: 6 940 813,75

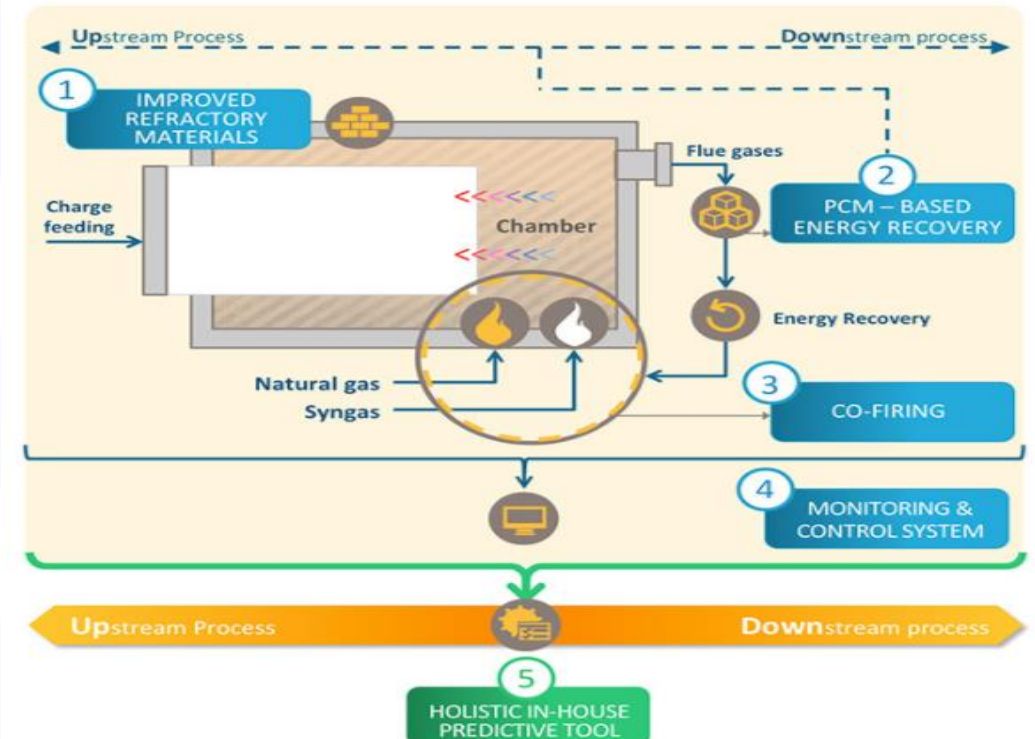
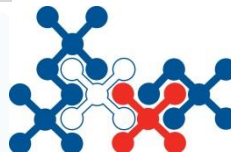
Coordinator: CIRCE Foundation (ES)

Objective:

the retrofitting of two types of industrial furnaces, namely preheating and melting, applied on three energy-intensive sectors (steel, ceramic and aluminium)

CONSORTIUM

7 COUNTRIES AND 12 PARTNERS



SPIRE 2018 calls

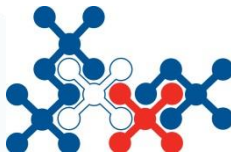
CE-SPIRE-02-2018: Processing of material feedstock using non-conventional energy sources

CE-SPIRE-03-2018: Energy and resource flexibility in highly energy intensive industries

CE-SPIRE-10-2018: Efficient recycling processes for plastic containing materials (IA)

Deadline: 22 February 2018

Budget: EUR 97,500,000



SPIRE 2018 calls

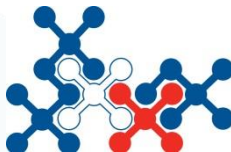
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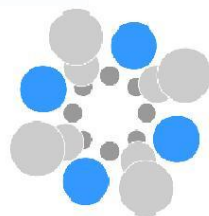
SPIRE 2018 calls – GET SUPPOT



<http://ec.europa.eu/research/participants/portal>

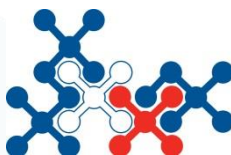


<https://www.spire2030.eu/>



NMP TeAm

<https://www.NMPTEAM.eu/>



Thank you for your attention!

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NCP in POLAND

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