



SPIRE

Panorámica y oportunidades en la Investigación e Innovación Siderúrgica en Europa

Madrid, 25-09-14

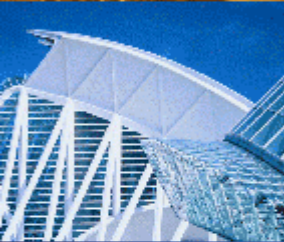


PLATAFORMA TECNOLÓGICA ESPAÑOLA DEL ACERO

Proyecto: INF – 2013 – 0162 – 020000, financiado por:



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1 - INTRODUCTION

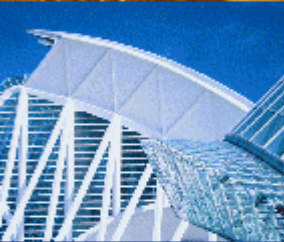


Sustainable Process Industry through Resource and Energy Efficiency (SPIRE) Public-Private Partnership (PPP)

This new association represents more than 90 industrial and research process industry stakeholders from over a dozen countries spread throughout Europe.

through the joint efforts of 8 industry sectors:

- chemical
- steel
- engineering
- minerals
- non-ferrous metals
- cement
- ceramics
- and water



1 - INTRODUCTION



The mission of SPIRE is to ensure the development of enabling technologies and best practices along all the stages of large scale existing value chain productions that will contribute to a resource efficient process industry.

The ultimate goal is to promote the deployment of innovative technologies and solutions required to reach long term sustainability for Europe and its process industries in terms of global competitiveness, ecology and employment.



2 - ROADMAP



The cross-sectorial and holistic SPIRE research and innovation roadmap provides the pathway for the process industry to decouple human well-being from resource consumption and achieve increased competitiveness in Europe.

The current roadmap represents a coordinated and integrated framework from research to business following a staged approach with short-term, medium-term and long-term objectives and benefits.



Key Component: FEED



Objective: Increased energy and resource efficiency through optimal valorisation and smarter use and management of existing, alternative and renewable feedstock

- KA 1.1: Enhancing the availability and quality of existing resources
- KA 1.2: Optimal valorisation of waste, residue streams and recycled end-of-life materials as feed
- KA 1.3: Optimal and integrated (re)use of water
- KA 1.4: Advancing the role of sustainable biomass/renewables as industrial raw material



Key Component: PROCESS



Objective: Solutions for more efficient processing and energy systems for the process industry, including industrial symbiosis.

- KA 2.1: Novel advanced energy technologies
- KA 2.2: Energy harvesting, storage and reuse
- KA 2.3: Process monitoring, control and optimization
- KA 2.4: More efficient systems and equipment
- KA 2.5: New energy and resource management concepts (including industrial symbiosis)

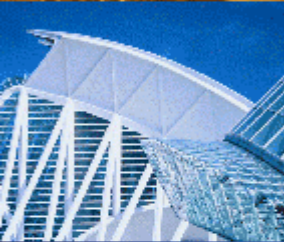


Key Component: APPLICATIONS



Objective: New processes to produce materials for market applications that boost energy and resource efficiency up and down the value chain.

- KA 3.1: New materials contributing to development of energy and resource efficient processes
- KA 3.2: New processes for energy and resource efficient materials applied in sectors down the value chain



Key Component: WASTE2RESOURCE



- Objective: Avoidance, valorisation and re-use of waste streams within and across sectors, including recycling of post-consumer waste streams and new business models for eco-innovation.
- KA 4.1: Systems approach: understanding the value of waste streams
- KA 4.2: Technologies for separation, extraction, sorting and harvesting of gaseous, liquids and solid waste streams
- KA 4.3: Technologies for (pre)treatment of process and waste streams (gaseous, liquids, solids) for re-use and recycling
- KA 4.4: Value chain collection and interaction, reuse and recycle schemes and business models



Key Component: HORIZONTAL



Objective: support the accelerated deployment of the R&D&I opportunities identified within SPIRE through sustainability evaluation tools and skills and education programmes as well as enhance the sharing of knowledge and best practices.

- KA 5.1: Identification, benchmarking and cross-sectorial transfer of good energy and resource efficiency solutions and practices
- KA 5.2: Methodologies and tools for cross-sectorial Life Cycle and Cost Assessment as well as novel social Life Cycle Assessment of energy and resource efficiency solutions
- KA 5.3: Develop skills and education programmes required for the development and deployment of novel energy and resource efficiency solutions and practices
- KA 5.4: Enhancing innovation and entrepreneurial skills and culture.

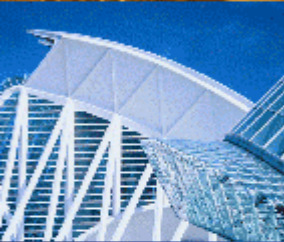


Key Component: OUTREACH



Objective: Reach out to industry (especially SMEs), policy makers, investors and citizens to support the realisation of impact through awareness, stimulating societal responsible behaviour.

- KA 6.1: Analysis and establishment of efficient technology dissemination methodologies, mechanisms and frameworks
- KA 6.2: Develop social responsibility for the process industry



SPIRE PPP in LEIT Work Programme 2014-2015

2014

SPIRE 1: *Integrated Process Control*

SPIRE 2: *Adaptable industrial processes allowing the use of renewables as flexible feedstock for chemical and energy applications*

SPIRE 3: *Improved downstream processing of mixtures in process industries*

SPIRE 4: *Methodologies, tools and indicators for cross-sectorial sustainability assessment of energy and resource efficient solutions in the process industry*

2015

SPIRE 5: *New adaptable catalytic reactor methodologies for Process Intensification*

SPIRE 6: *Energy and Resource Management Systems for Improved Efficiency in the Process Industries*

SPIRE 7: *Recovery Technologies for Metals and other Minerals*

SPIRE 8: *Solids Handling for Intensified Process Technology*

3 – H2020



SPIRE PPP in SC3 Work Programme 2014-15:

Secure, clean and efficient energy

2014

CALL – ENERGY EFFICIENCY

C - Industry and products

EE 18 2014/2015: New technologies for utilization of heat recovery in large industrial systems, considering the whole energy cycle from heat production to transformation, delivery and end use

2015

CALL – COMPETITIVE LOW-CARBON ENERGY

LCE 2 – 2014/2015: Developing the next generation technologies of renewable electricity and heating/cooling

Subtopic g. Renewable Heating and Cooling:

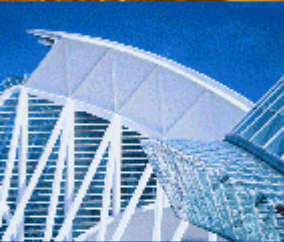
- *Solar cooling systems*
- *Solar heating for industrial processes*

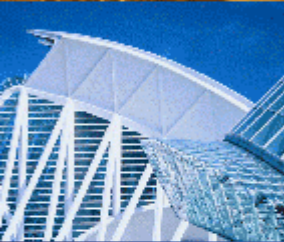
SPIRE PPP in SC 5: Climate action, environment, resource efficiency and raw materials

2014

Waste: A Resource to Recycle, Reuse and Recover Raw Materials

WASTE-1-2014: *Moving towards a circular economy through industrial symbiosis*





www.spire2030.eu



Muchas gracias por su atención

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