A.SPIRE at the mid-term of H2020

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SPIRE cPPP

- Officially launched on 17 December 2013 in the framework of HORIZON 2020

- First-ever innovation Public-Private Partnership (PPP) with Europe’s process industry
Why SPIRE is needed

To Facilitate Prioritization of R&I in line with the EUROPE2020 Objectives and Industry Needs

To solve problems together with industry

To strongly commit industry to joint objectives

To consistently gather together:
- The value chain
- The innovation chain
- The industrial chain

To leverage research and innovation

To strengthen European industrial leadership
SPIRE framework

- Public-Private Partnership between European Commission & A.SPIRE supporting R&I for Process industries
- Horizon 2020 rules for participation

Features:

- **Openness**: supporting all partners of projects, welcoming new stakeholders and new sectors across the whole EU
- **Collaborative**: with the EC, Member States, Regions and all R&I stakeholders (members and non-members)
- **Innovation foresight**: moving towards the next generation of sustainable process industries
SPIRE 2030 roadmap

TO TOMORROW’s SCENARIO:

- (Re)invent feedstock (waste, bio, CO₂)
- Reduce emissions; (re)invent energy & resource management concepts, incl. industrial symbiosis
- Introduce digital devices for better monitoring and control
- (Re)invent materials for optimised processes
- (Re)invent processes & materials with a significantly increased impact on resource & energy efficiency down the value chain: transport, housing
- Reduce waste & (re)invent technologies for valorisation of waste streams within and across sectors
### SPIRE Projects overview

**2014**
- 18 projects

**2015**
- 18 projects

**2016**
- 18 projects

**2017**
- 21 projects
  - 14 from SPIRE topics
  - 6 from CIRC topics (SPIRE related)
  - 1 from EE-17-2016 topic (SPIRE related)

**2018-20**
- WP to be launched October 2017

**72 ongoing projects + 3 finished = 75 SPIRE Projects**

- **33 RIAs** / **34 IAs** / **8 CSAs**
SPIRE Projects overview

- **2014**: 3 finished projects
- **2015**: 3 ongoing projects
- **2016**: 16 ongoing projects
- **2017**: 24 ongoing projects
- **2018**: 19 ongoing projects
- **2019-2020**: 10 ongoing projects
- **2021-2022**: 10 ongoing projects

58% of SPIRE projects declared that *time to market* will be reduced around 24 months on average thanks to SPIRE support.
**SPIRE EXPECTED IMPACTS**

R+I to integrate and demonstrate at least 40 innovative systems and technologies:

- 7 in Adaptable processes able to use different feedstocks
- 6 in Reduction and re-use of waste with ambition to close the loop
- 9 in Innovative processes leading to \( \text{CO}_2 \) reduction
- 8 in Green technologies to develop novel materials for new and existing markets
- 6 in Industrial processes reducing water use
- 4 using Technology uptake within/between sectors to enable industrial symbiosis

... and capable of achieving across process industry (by 2030):

- A reduction in fossil energy intensity of up to 30%
- A reduction in non-renewable, primary raw material intensity of up to 20%
- Efficiency improvement of \( \text{CO}_2 \)-equivalent footprints of up to 40%
- 10 new types of high-skilled jobs
SPIRE KPIs progress

Based on progress until end 2016

SOCIO ECONOMIC KPIs - SPIRE cPPP

KPI 1. New systems and technologies developed in the relevant sectors
- 173 developed
- 40 planned

KPI 6. New types of high-skilled jobs (profiles)
- 68 developed
- 10 planned

KPI 7. Private investments mobilised in relation to SPIRE PPP activities
- 750 M euros estimated
- 1,400 M euros target

KPI 8. Contribution to new standards
- 50 estimated
- 0 target

7 developed
134 on-going
32 planned
SPIRE foresees to reach the environmental targets by deployment stage based on progress until end 2016.

- **KPI 3- Obj 1.** Reduction fossil energy intensity up to...
  - ESTIMATED: 20%
  - TARGET: 30%

- **KPI 3- Obj 2.** Efficiency improvement CO2 equivalent footprints up to...
  - ESTIMATED: 25%
  - TARGET: 40%

- **KPI 4.** Contribution to the reduction of waste
  - ESTIMATED: 28%

- **KPI 5.** Reduction in non-renewable, primary raw material intensity of up to 20%
  - ESTIMATED: 20%
  - TARGET: 20%
SPIRE KPIs progress

KPI 2. Participation and benefits for SMEs

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<tbody>
<tr>
<td>Number of SMEs in SPIRE projects</td>
<td>185</td>
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<tr>
<td>Number of times SMEs participate in SPIRE projects</td>
<td>208</td>
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<td>Share of participation of SMEs in SPIRE projects</td>
<td>28%</td>
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<td>Average participation rate of SME’s/SPIRE project</td>
<td>3.9</td>
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<tr>
<td>Estimated increase in SMEs turnover (deployment stage)</td>
<td>11%</td>
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<td>Estimated increase in SMEs number of employees (deployment stage)</td>
<td>16.6</td>
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50% of SPIRE projects are coordinated by members of A.SPIRE, including SMEs

Based on progress until end 2016
Success rate development

2014 Results = 18%

2015 Results = 15%

2016 Results = 27%
Cross-sectorial approach

Cross-sectorial collaboration is cornerstone for SPIRE projects:

- Minimum: 2 sectors/project
- 7 or 8 sectors together are collaborating in various projects
- Average: 2.67 sectors/per project
Cross-sectorial approach

Global sectors participation in SPIRE projects:

All sectors benefit
Cross-sectorial transferability

Area II – Sustainability and Circular Economy: 250%

SPIRE Projects’ Results:
Transferable across SPIRE sectors and to other sectors in Process Industry

Based on progress until end 2016
Lessons learnt – A LOOK TO THE FUTURE

Ambitious goals lead game changing innovations: SPIRE looks 30 years ahead and aims at the Next Generation of EU Process Industry.

More spaces to enhance the exploitation and cross-sectorial transfer of results enhance impact.

KPIs assessment methodology needs clearer baselines at call and proposals levels.

Communication and dissemination activities among SPIRE projects improve uptake of project results and help identify collaboration opportunities.

Support for collaboration across projects through clustering in the very beginning avoids duplication of tasks.

Further support for cross-sectorial collaboration and sectors dialogue reinforces better proposals, results and impact.
Conclusion

• First ever 8 sector process industry PPP
• SPIRE is inherently open
• SPIRE is well aligned with the EU priorities
• SPIRE is running at full speed: 75 projects
• SPIRE will deliver on its KPIs, incl. 28% SMEs
• The success rate is high: currently 27%
• Cross-sectoriality really works

• We believe that SPIRE is a worthy effort and a worthy investment
  … and we need to continue to work hard on the success until 2020 and beyond
Thank you

SPIRE believes in a sustainable Europe