



Erasmus+ Programme (Key Action 2)

Skills Alliance for Industrial Symbiosis - A Cross-Sectoral Blueprint for a Sustainable Process Industry (SPIRE-SAIS)

THE MISSION

- Proactive, industry-driven adjustment to meet future skills demand across the SPIRE sectors
- Developing new skills to unfold the potential of digital transformation within SPIRE companies and beyond

BACKGROUND

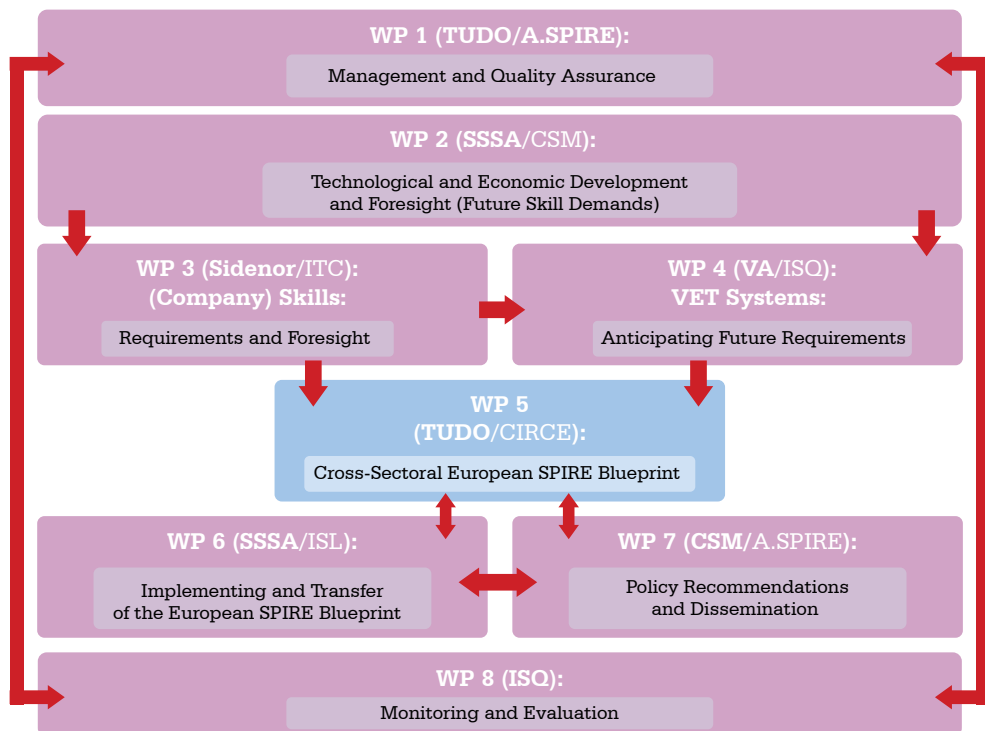
European (and global) industry has many economic, technological and digital challenges. Couple these with increasing energy efficiency and environmental demands and the need to continuously update the qualification, knowledge and skills profile of the workforce becomes apparent.

An EU level intervention to address skill shortages in Industrial Symbiosis and energy efficiency is paramount for energy intensive sectors while also empowering EU citizens with the necessary set of tools for future job profiles. There is thus a need for updated qualifications, knowledge and skills supporting cross-sectoral collaboration and Industrial Symbiosis activities.

KEY COMPONENTS OF SPIRE-SAIS

- Build on the existing coordination, projects and activities of SPIRE
- Apply a **cross-sectoral approach** covering all SPIRE sectors
- Combine industrial – urban symbiosis with **proactive skills adjustment**
- Extend the concept of innovation, via a new innovation paradigm, that **systematically links technological, organisational and human resources development**
- Develop a **social innovation process** integrating all the relevant stakeholders and considering likely impact from the start of the project
- Establish a **new actor constellation and alliances** and new perspectives that anticipate future-orientations
- Deliver a **learning process** for all the partners involved that could extend to whole sector institutions and actors
- Involve and embrace **the different rationalities** of the policy fields and institutions concerned
- Deliver a blueprint for a commonly accepted SPIRE **framework for orientation, reflective and anticipating governance**

WORK PACKAGES



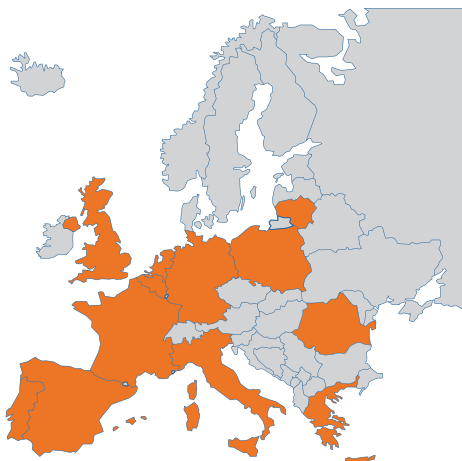
OBJECTIVES

- To develop an **industry driven and pro-active skills strategy focusing on industrial - urban symbiosis and energy efficiency across the eight sectors of SPIRE (chemicals, steel, engineering, non-ferrous metals, minerals, water, cement, ceramics)**.
- Anticipate new skills demands and to allow pro-active practical activities meeting the future requirements of Energy Intensive Industries.

This will be achieved by the:

- Development of modules and tools for awareness of industrial-urban symbiosis
- Development of new skills for the practical implementation of industrial-urban symbiosis

PROJECT PARTNERS AND COUNTRIES



Industry sector associations: A.SPIRE, ESTEP, IMA Europe, European Aluminium, Water Europe, ECEG

Companies: Covestro (Chemicals), Sidenor, Ferriere Nord (Steel), MYTILINEOS (Aluminium), Suez (Water)

Education/training providers & RTOs: Scuola Superiore Sant'Anna, Fundation Circe, ITC, ISQ, International Synergies, H2Opeople

Research institutions: TU Dortmund University, CSM/RINA, Visionary Analytics, IMNR, Łukasiewicz-IMN


Regional institutions: ART-ER

Associated partners: EIT Raw Materials, thyssenkrupp Steel Europe, CEFIC, CEMBUREAU, ITQ (Universitat Politècnica de València), Carbon Market Watch, Circle Economy, University of Deusto


EXPECTED RESULTS

- A blueprint for an industry-driven, long-term strategy focused on industrial-urban symbiosis and digital skills
- Proactive adjustments to the workforce to enable deployment and implementation of new technologies to optimise processes
- Monitoring and shortening the implementation of industry relevant qualifications in national Vocational Education & Training (VET) systems
- Developing and exchanging modules, tools and experiences in implementing the new skills agenda and strategy
- Disseminating the SPIRE-SAIS blueprint and discussing and comparing solutions with those from other sectors
- Effective roll-out of skills activities at regional, national and European level

SPIRESAISBlueprint

 www.spire2030.eu/sais

 @SaisSpire

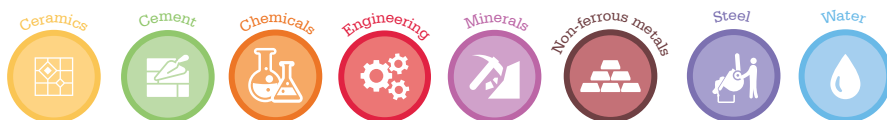
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Cooperation for innovation and the exchange
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