



INDTECH2018

Innovative industries for smart growth

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PILLAR 1

Session 1.1

ENABLING CROSS-SECTORIAL INDUSTRIAL SYMBIOSIS
Bringing together the steel, cement, chemicals, minerals and engineering sectors enabling cross-sectorial Industrial Symbiosis to become more efficient and sustainable.

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TOPIC : Energy and resource management systems for improved efficiency in the process industries

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ENABLE CROSS-SECTORIAL INDUSTRIAL SYMBIOSIS

make process industry

- more **efficient**
- more **cost-effective**
- more **competitive** and
- more **sustainable**

across process sectors

via symbiosis

- on process industry sites
- in cross-sectorial clusters

PROCESS INDUSTRY DRIVE

across companies & sectors

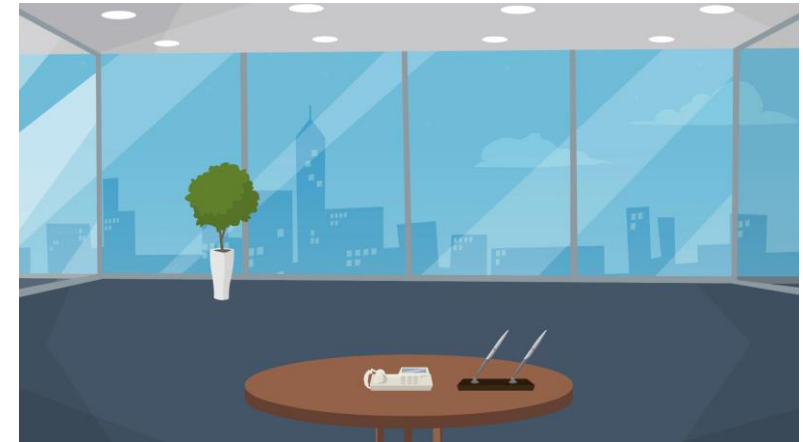
- (more than) SPIRE sectors
- (plus) SMEs & unis
- industrial & district clusters

industry approach to

- validate IS in process industry
- develop IS tools & standards
- generate impact in Europe



EPOS animation
SYMBIOSIS IN INDUSTRY
www.spire2030.eu/epos





HOW TO MAKE IS HAPPEN?

- facility **clustering** • conference rooms • infrastructure • pipelines • tanks • equipment
- machines • **utilities** • logistics • purchasing • catering • open days • personnel •
- job fairs • reception • the panel & **se** • gate control • security guards • video
- surveillance • site **sh** • window cleaners • building, road & green **maintenance** •
- water treatment • **waste** collection • storage facilities • waste streams • waste heat •
- byproducts • **CCUS** • **resources** • **wish** • **raw materials** • **renewables** • **energy** • electricity •
- grid mgt • VPP • transport service • parking • **industry** • **pooling** • fitness rooms • running tracks
- **CSR** • site shops • post office • nursery • **catering** • restaurants •