

Proposal acronym	ATEES	
Proposal full name	Active Tools to determine best solutions in energy and emission savings in industry.	
Call	SPIRE 4 – 2014: Methodologies, tools and indicators for cross-sectorial sustainability assessment of energy and resource efficient solutions in the process industry	
Type of action:	CSA	
Approximate total cost (optional information)	500.000€ Aprox.	

Summary of your proposal's objectives

Project Idea Concept

The proposed project consists on the active analysis of solutions to achieve an acceleration of the implementation of innovative technologies that promotes energy and other resources saving actions and the reduction of greenhouse gasses emissions into the in multiple manufacturing processes and along its entire value chains.

The action that promotes the project should involve a study across various sectors in the process of manufacturing; one of the proposed sectors is the ceramic sector. Sustainability assessment tools, methodologies, best technologies and indicators will be analyzed in each case; the best solutions will be compared and interrelated among the all sectors of the study in order to establish the optimal scenarios of energy and saving improvements.

This proposal will consider all aspects of sustainability assessment along the whole product life cycles with regard to resource and energy efficiency. This will be done by sharing of prior knowledge acquired by each of the stakeholders: manufacturers, SME companies, research centers and local authorities.

The proposal aims to accelerate the transition to a low-carbon and more efficient society by involving manufacturer companies (machine, process, the whole factory and along the entire value chain), communities and citizens to reduce their impact and connect worldwide in the climate change challenge. The objective will be achieved by removing barriers in the implementation of the best available techniques (BAT) for reducing the impact of the manufacturing industries to the climate change.

The main results of the project will be the promotion of the Best Available Techniques (BAT) in the European ceramic sector, and the transfer of this knowledge to other manufacturing processes. The project will encourage the implementation of the identified Best Techniques (BTs) in other industries, by an ambitious dissemination plan, helping the replicability of them in different industrial facilities.

Proposed outcomes:

- Analysis of currently used methodologies, tools, indicators and practices in the 3 different selected sectors.
- Selection of the most appropriate technological and no technological best solutions.
- Selection of solutions of acceleration in order to improve efficiency indicators over the 3 value chains.
- Selection and recommendations on the most suitable tools for management and decision making at research lab, plant, company, sector and multi-sectorial level.

Idea Impact

- Identification of best practices in technologies and behaviours over ceramic sector for environmental, social and economic sustainability indicators to facilitate cross-sectorial deployment.
 - o Minimize energy consumption in all value chain and in each of involved manufacturing companies.
 - o Minimize CO₂ in all value chains of involved manufacturing companies.
 - o Optimize use of resources and raw materials
 - o Minimize the generation of wastes, effluents and emissions.
- Identification of the research needs in this area to achieve a set of environmental, social and economic sustainability indicators suitable for the process industry.
- Extrapolate the best technologies and behaviours to other industrial sectors.
 - o To define the integral management tool and related business models should be extrapolated to different manufacturing sectors and supply chain.

Existing Project Consortium

Related to the ceramic sector in the Comunidad Valenciana region:

One of the selected region in study is the ceramic sector, located in the city of Castellón, because it accounts for 95% of the Spanish production of ceramic tiles, and there is a well-established ceramic cluster where all the social agents are involved: local government, research center and the chamber of commerce

Nowadays, the consortium includes research centers, local authorities, Industry associations and the Official Chamber of Commerce in Comunidad Valenciana region. The main aspect of the partnership is that it combines all main actor players of the ceramic sector:

Agents		Organisation legal name	Short Name	Short Description	Role
Research centres		Ceramic Technology Institute	AICE-ITC	AICE-ITC has a specialized research group on environmental and energy efficiency issues regarding ceramic tile with great experience in energy saving activities and in CO ₂ emissions reduction.	Partner
		Energy Technology Institute	ITE	ITE is a research centre in Valencia expert in the field of energy and sustainability. It has involved in several projects regarding efficiency energy in industrial process	Partner
Local authorities		City Council of Castellón	CCC	The City Council of Castellón is working on reducing the impact on the environment of the activities carried out in the municipality	Partner
Companies	Chamber of Commerce	Official Chamber of Commerce, Industry and Navigation of Castellón	COCINS	It represents 48.908 companies of different sectors	Partner (Contracted)
	Industry associations	Spanish Association of Ceramic Tiles Manufacturers.	ASCER	Its associates are around 200 companies	End-user
		National Spanish Association of Ceramic Frits, Glazes and Ceramic Pigments	ANFFECC	Its associates are around 20 companies	End-user
		Spanish Association of Machinery and Equipment for the Ceramics Industry Manufacturers	ASEBEC	Its associates are around 50 companies.	End-user

Looking for partners...

Other similar European entities (research centers, local authorities, industry associations) of other 2 regions in other 2 manufacturing sectors.

Project Timeline

Two years

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