

# Actors and Activities in the field of Resource Efficiency in Italy

Combined presentation of the results from mapping actors and from mapping activities (at policy and economic level), relevant projects and networks in the field of resource efficiency in one country report (relates to outputs 5.1.6. and 5.1.14)

**ENEA** 









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# 1. Summary

As an overall result of the review of actors relevant for resource efficiency (RE) in small and mediumsized enterprises of the manufacturing sector and their activities in Italy (done within the PRESOURCE project in 2013) the following can be stated:

• RE in Italy









# 2. Introduction

One of the deliverables of the PRESOURCE project is an overview of actors relevant for resource efficiency in small and medium-sized enterprises of the manufacturing sector and another deliverable is to provide an overview of their activities in Italy.

The activities of different actor categories have been screened and those, who engage actively in promoting resource efficiency – especially in SME of the manufacturing sector – have been described in this country report on actors and activities.

The following actor categories have been found to initiate, support or manage relevant activities: national and regional government ministries and related agencies, other agencies and associations, chambers of commerce, norms and standards institutions, research institutes and think tanks, local networks, economic clusters and municipalities.

The activities relevant for resource efficiency in small and medium-sized enterprises of the manufacturing sector found in all mentioned actor categories are shortly described in the report, so that it provides a unique overview of actors and activities relevant for that thematic focus. The combination of the different levels from the public and private sectors gives a full picture of how different actors interact and complement in delivering progress on the way to a resource efficient economy. This research is a necessary condition to develop the ability to analyse the complex societal structure and the division of labour leading to desired political outcomes.

The second part of the report takes the perspective of activities and describes relevant forms of support structures, instruments and tools. It provides some concrete examples but does not repeat all activities of the above-mentioned actors. The relevance of the actors is determined by their activities, which are detailed in their descriptions. As for example nearly all actors are providing information services and some of them provide consultation services, the kind of information or consultation service they provide is explained in the description of the actors and their activities above. The second part mainly gives an overview of possible practical approaches, whose implementation and combination with other instruments can vary considerably.

#### 3. Stakeholders & Activities

## 3.1. Additional national policies

Have additional national policies, incentives, voluntary agreements and strategies in the production sector been developed to fulfil objectives set in the Roadmap to a Resource Efficient Europe?

- Up to now, Italy does not have a specific resource efficiency program but many national policies are linked to the goals set in the Roadmap to a Resource Efficient Europe
- Some topics on which polices, legislation and incentives have been strengthen are: waste reduction and prevention, circular economy, energy efficiency, renewable energy, smart cities, SMEs clusters, eco-innovation and competitiveness of districts and industrial area









# 3.2. National/regional government ministries and agencies

Who is responsible for the topic of Resource Efficiency in the production sector on the governmental level? (e.g. Ministry of Commerce, Ministry of Environment) Which department is taking the lead? Which activities and actions to enforce RE are taken? In case of federal states, please include information on national and sub-national level.

# **3.2.1.** Ministry of the Environment and the Territory and the Sea Defence (MATTM) <a href="http://www.minambiente.it">http://www.minambiente.it</a>

• Identifies the guidelines for the environmental protection, waste prevention and sustainable production and consumption policies (PCS)

# 3.2.2. Ministry of the Economic Development (MISE)

http://www.sviluppoeconomico.gov.it

Identifies the guidelines for renewable energy development and energy efficiency policies

# 3.2.3. ENEA (Italian National Agency for New Technologies, Energy and Sustainable Economic Development)

http://www.enea.it/en

- Supports the Ministry of the Environment and the Territory and the Sea Defence defining strategies and technical solutions for environmental protection, waste prevention and sustainable production and consumption policies
- Supports the Ministry of the Economic Development defining strategies and technical solution for renewable energy development and for increasing energy efficiency

# 3.2.4. ISPRA (Italian National Institute for Environmental Protection and Research)

http://www.isprambiente.gov.it/en

- Manages and supervises the actions of control and monitoring on pollutant emissions and waste generation
- Offers the technical support to the Italian National Ecolabel Ecoaudit Committee

#### 3.3. Additional comments

Any additional comments on the responsibilities of Resource Efficiency? (e.g. unclarity about distribution of responsibilities, main political driver)

• At the moment, there is not a specific resource efficiency national strategy and specific goals are set mainly in the energy field









# 3.4. Agencies, chambers, associations and networks

Which are relevant actors contributing to the implementation of Resource Efficiency actions concerning the production sector?

# 3.4.1. Public agencies (state owned)

# **ENEA (Italian National Agency for New Technologies, Energy and Sustainable Economic Development)**

#### http://www.enea.it/en

- Research and development on:
  - Energy: white certificates issues, energy managers training, energy efficiency and renewable energy, energy certification and management of governmental incentives (55%), training on many innovation schemes)
  - Ecoinnovation: ecodesign, green economy, Life Cycle Assessment, eco-labels, EMS, GPP)
  - o Industrial areas management
  - New technologies and technology transfer
  - o Prevention and reduction of waste, air and water pollution
  - Water efficiency

## AEEG (Governmental authority for electric energy and gas)

# http://www.autorita.energia.it/it/inglese

• Promotes the rational use of energy with measures aimed to the diffusion of renewable energies systems and energy efficiency technical solutions

#### **Sustainable Development Foundation**

http://www.fondazionesvilupposostenibile.org/dtleng-503-ACTIVITIES?idf=503

• Promotes solutions for the decarbonisation of the economy and for the sustainable mobility

# Stati Generali della Green Economy (General State of the Green Economy)

#### http://www.statigenerali.org

• The General State of the Green Economy is promoted by the Ministry of the Environment, the Protection of the Land and the Sea. It is an association of 63 companies and organisations working on several topics: Eco-innovation, Material and Recycling, Energy efficiency, Environmental services, Sustainable mobility, Agricultural production, Water









# 3.4.2. Private sector agencies (only some examples are reported, especially referring to Emilia Romagna region and to furniture, energy and agriculture sectors)

# **Green Building Council**

# http://www.gbcitalia.org

 Green Building Council works to train professionals in Italy, sets standards for green buildings at national level, provides the local context for market transformation towards green technologies and promotes LEED standards and certification in Italy

# Centuria – RIT (Romagna Innovazione Tecnologica)

#### http://www.centuria-rit.com

- Consortium composed by over 70 Associates, including enterprises, Public Administrations,
  Trade Associations, Chamber of Commerce and Banks. Centuria-RIT is the Romagna Science
  and Technology Park, recognised as "Innovation Centre" by the Emilia Romagna region
- Centuria-RIT aims at promoting the Associates' development and the growth of the whole area of Romagna through technological and organizing innovation, in particular in agrofood and manufacturing sectors

#### **COSMOB**

# http://www.cosmob.it

 Technology centre for wood furniture sector. Services, laboratory and research activity for firms in the field of technology, quality, design and environment

# 3.4.3. Chambers (e.g. Chamber of Commerce, Chamber of Industry)

#### **Italian Chamber of Commerce**

#### http://www.camcom.gov.it

- supports and assists enterprises in the field of environmental practices and management (particularly EMAS)
- manages the registers for waste handling and traceability









supports the technology transfer

# 3.4.4. Associations (e.g. Association of Engineers)

#### **ISNOVA FIRE**

#### http://www.fire-italia.it

- No profit organisation dealing with development and diffusion of new technologies with particular reference to those needed by the small and medium enterprises.
- The primary goal of FIRE ISNOVA is to promote energy efficiency, mainly through the provision of operational, technical and scientific support to its members and to energy managers.
- It aims to: promote and activate an "energy culture" through the diffusion of information, knowledge and best practices about the rational use of energy among policy makers, energy managers, public officers, market operators, and end-users; carry out studies, researches, surveys and analyses to identify the needs and the cost effective options for energy efficiency improvement; contribute to the identification of new techniques for energy saving; stimulate international collaboration involving foreign associations operating in the energy and environment sectors
- Technical support on energy efficiency strategy development

#### F.IN.CO.

#### http://www.fincoweb.org

- National Federation of Confindustria, representing goods industries facilities-services in the construction industry.
- F.IN.CO. Represents the interests and protects interest of Associates, talks to the outside
  world and the media, implementing studies and research aimed at development and
  industrialization of building systems, develop joint actions towards the rationalization and
  qualification process and products

# National Confederation of Crafts and Small and Medium-Sized Enterprises (CNA)

#### http://www.cna.it

- CNA is involved as an independent political player in the setting up of economic development policies aimed at increasing the competitiveness of the region's economic and social system
- provides activities concerning innovation and promotion of cleaner production









#### **INNOVANET**

#### http://www.bo.cna.it/Eventi/innovare crescere innovanet

- INNOVANET is the name the CNA of Bologna (Italy) has given to this innovative SMEs group
- INNOVANET is a group of 40 SMEs: manufacturers of packaging machines, tool machines, certified testing and measurement laboratories, manufacturers/designers of complete electronic boards, mechanic and electronic designers, subcontractors of mechanic and micro mechanic parts, furniture and textile
- INNOVANET's aim is to find new business fields using new and innovative technologies and/or partners in order to increase and diversify the today core business. Fields of interest are:
  - recycling / recovering from waste
  - energy saving
  - health care
  - green economy

# Federlegno-Arredo and Assoufficio

## http://www.federlegno.it/tool/home.php

• Industrial association of the wood furniture producers, which also operates in the field of sustainability, clean technologies and eco-innovation

#### Legno Legno

#### http://www.legnolegno.it

 Offers services aiming at making the most of entrepreneurial activities in the doors and windows accessories and fittings. It gathers almost 700 artisans and small industry realities of the wood and furniture sector. Thanks to its experience in this area it gives them advice and services

## 3.4.5. Networks (e.g. Resource Efficiency Network)

## **EEN Network - Friend Europe**

# http://www.friendeurope.it

- The Consortium Friend Europe, with the support of the other network's members, provides services:
  - to assist companies in identifying potential commercial partners, especially in other countries
  - o to help SMEs develop new products and access new markets
  - to inform them about EU activities and opportunities









- o to advise small businesses on EU legislation, policies, programmes and on technical issues such as intellectual property rights, standards
- o to organise cooperation between EU and extra-EU SMEs
- o to help SMEs in acceding to financing opportunities and EU programmes
- o to offer service to strengthen the innovation skills and competitiveness of SMEs
- to support trans-national technological cooperation and to carry out technological audit

## **EEN Network bridge economies**

#### http://www.bridgeconomies.it

- · European Consortium for Technology Innovation Transfer
- Technology transfer activities and promotion of innovation in SMEs

# Life Cycle Assessment Italian Network (Rete Italiana LCA)

#### http://www.reteitalianalca.it

 The LCA Italian Network is an initiative aimed at promoting the dissemination of LCA methodology through the creation of a network to exchange knowledge, information, methods and good practices on LCA state of the art and perspectives in Italy

#### **CARTESIO Network**

#### http://www.retecartesio.it/index.asp?l=2

It is aimed to reach and disseminate joint solutions in cluster sustainable management

#### 3.5. Norms and standards institutions

Who is determining the norms, standards and guidelines for Resource Efficiency in SMEs in the production sector?

# 3.5.1. Ministry of the Environment and the Territory and the Sea Defence (MATTM) http://ww.minambiente.it

## 3.5.2. Ministry of the Economic Development (MISE)

http://www.sviluppoeconomico.gov.it









#### 3.6. Research institutes and think tanks

Which research institutes and think tanks are engaged in Resource Efficiency in the production sector?

# 3.6.1. ENEA (Italian National Agency for New Technologies, Energy and Sustainable Economic Development)

#### http://www.enea.it/en

- Research on energy efficiency and renewable energy
- Research on Eco-innovation and ecodesign
- Support on energy certification and incentives, training on many innovation scheme and energy management
- Support on environmental certification and Life Cycle Analysis
- Technology transfer

# 3.6.2. National Research Council (CNR)

http://www.cnr.it/sitocnr/Englishversion/Englishversion.html

- The National Research Council (CNR) is a public organisation; its duty is to carry out, promote, spread, transfer and improve research activities in the main sectors of knowledge growth and of its applications for the scientific, technological, economic and social development of the Country
- CNR is distributed all over Italy through a network of institutes aiming at promoting a wide diffusion of its competences throughout the national territory and at facilitating contacts and cooperation with local firms and organisations
- It provides technical and scientific support to public authorities, upon their request
- It may provide a third party with private law services in the pursuit of its own institutional activities

## 3.7. Other actors and multipliers

Which other actors are multipliers to SMEs for Resource Efficiency in the production sector? (e.g. Suppliers, Tradesmen)

## 3.8. Economic clusters, regions and municipalities

Are there economic clusters, regions or municipalities that are particularly known for their initiative/support concerning Resource Efficiency in SMEs? If yes, which ones are they and what are they famous for?









- Emilia Romagna is one of the most active regions in Italy in initiative concerning Resource Efficiency in SMEs:
  - Energy and Environment Technology Platform of the Regional High Technology Networks of Emilia-Romagna is trying to develop networking between companies in order to reduce waste production and resource consumption
  - ARPA (Regional Agency for Environment Prevention in Emilia-Romagna): is an environmental control technical support body to the Regional, District and Local Authorities
  - ERVET: "in house" society of Emilia Romagna Region which operates as agency for the development of the territory and for the support of the Region activities
  - ASTER: consortium among the Emilia-Romagna Regional Government, Universities, National Research Centres located in the region (ENEA, CNR, INFM) and the Entrepreneurial Association of the system through the promotion of the industrial research/technology development and the improvement of high quality skilled professionals and career development in technology transfer field. A special service called FIRST is dedicated to financial incentives on research and innovation
  - TECNOPOLO: Emilia Romagna's High Technology Network laboratories and centres have combined into the Technopoles contributing with their assets of scientific skills and human resources but also with incubators and enterprises, which form the regional productive system. Venues where know-how is transferred to the business sector and where the access to innovation and to new technologies is favoured and developed by the entire Emilia-Romagna public research system. The scientific institutions involved are: Universities of Bologna, Modena and Reggio Emilia, Ferrara, Parma, the Milan Polytechnic and the Catholic University in Piacenza, the National Research Council (CNR), the Italian National Agency for New Technologies, Energy and Sustainable Economic Development (ENEA), the Rizzoli Orthopaedic Institute and other research organisations, the regional government and other local institutions such as the provinces and municipalities in which the research labs and infrastructure are located
- The government of Emilia Romagna Region has realised a Regional Energy Plan in 2007, which key aspects are the promotion of efficient energy use, energy savings, the development of renewable energy sources, the requalification of transmission grids, the development of new technologies for industrial sector, the energy certification of buildings and the development of energy management services. The plan sets the energy savings goals for each sector (buildings, transports, industry). A regional law of Emilia Romagna region has established that from 1st July 2008 the Energy certification for both new and restructuring buildings is mandatory
- The province of Bologna (sited in Emilia-Romagna region) has realised a strategic plan which
  analyses the energy use within the territory and the future possible scenarios for the
  reduction and diversification of energy production, which a special focus on renewable
  sources- biomass, solar, wind- and energy savings

# 3.9. Any additional comments









No additional comments

# 4. Instruments/Tools

# 4.1. Support structures (awards, EMAS)

Which support structures exist to highlight resource efficient approaches in SMEs? (e.g. Awards, EMAS)

#### 4.1.1. Ecolabel

http://ec.europa.eu/environment/ecolabel

• Italy is the European leader for the number of licence for products with Ecolabel (31% of the European total)

#### 4.1.2. EMAS

http://ec.europa.eu/environment/emas

• The EU Eco-Management and Audit Scheme (EMAS) is a management tool for companies and other organisations to evaluate, report and improve their environmental performance

#### 4.1.3. EPD

http://www.environdec.com

 An environmental declaration, is defined, in ISO 14025, as quantified environmental data for a product with pre-set categories of parameters based on the ISO 14040 series of standards, but not excluding additional environmental information

## 4.1.4. 5. PEF

http://ec.europa.eu/environment/eussd/smgp/product\_footprint.htm

Product Environmental Footprint (PEF) is a Life Cycle Assessment (LCA) based method to
calculate the environmental performance of a product. It has been developed by the
European Commission's Joint Research Centre based on the most robust existing,
extensively tested and used methods. The system will be operating after a 3-year testing
phase

#### 4.1.5. ENVIFOOD

http://www.food-scp.eu/node/72









- The European Food Sustainable Consumption and Production Round Table's Draft ENVIFOOD Protocol is the first ever developed harmonised framework assessment methodology for the environmental assessment of food and drink products
- Adopted on 21 November 2012, it will contribute to helping businesses and consumers understand the environmental impacts of food and drink products and support informed choices, thereby fostering more sustainable consumption and production patterns
- The pilot project was launched on 27 March 2013 with 21 organisations agreeing to test the draft Protocol. Participants include a wide range of food and drink manufacturers, trade associations and research institutes

#### 4.1.6. QUAM

http://www.minambiente.it/home\_it/index.html?lang=it

 National environmental certification scheme under development for products characterising clusters, based on Life Cycle Assessment Methodology

# 4.2. Other specific tools and instruments

List existing instruments/ tools that are used to improve Resource Efficiency in SMEs (please indicate whether instruments are used by private actors, public actors or both)

# 4.2.1. Related to production processes

#### Italian National Energy Efficiency Plan (PAEE, 2011)

Defines target and incentives for energy efficiency in the private and public sector

# **Italian National Renewable Energy Action Plan (2010)**

Defines targets and economic incentives for renewable energy production

#### Law 10/91

• Legal obligation to nominate an energy manager for the companies with more than 10000 tep consumed and for the public administration with more than 1000 tep consumed

# Heating and cooling support scheme (Legislative Decree no. 28 of 3 Mar. 2011)

• Scheme of support for small-scale projects of energy efficiency improvement and production of thermal energy from renewable sources









- Gestore dei Servizi Energetici-GSE S.p.A. is the body in charge of implementing and managing the scheme, as well as of awarding financial incentives
- Eligible projects concern:
  - energy efficiency improvements in existing building envelopes (thermal insulation of walls, roofs and floors, replacement of doors, windows and shutters, installation of solar screens)
  - o replacement of existing systems for winter heating with more efficient ones (condensing boilers)
  - replacement and, in some cases, construction of new renewable-energy systems (heat pumps, biomass boilers, heaters and fireplaces, solar thermal systems, including those based on the solar cooling technology)

# White certificates, also known as "Energy Efficiency Certificates" (EEC)

- tradable instruments giving proof of the achievement of end-use energy savings through energy efficiency improvement initiatives and projects
- The white certificates scheme was introduced into the Italian legislation by the Ministerial Decrees of 20 July 2004, as subsequently amended and supplemented
- Under the scheme, electricity and natural gas distributors are required to achieve yearly quantitative primary-energy saving targets, expressed in Tonnes of Oil Equivalent (TOE) saved. Each certificate is worth one tonne of oil equivalent (toe) saved

#### 4.2.2. Related to products

### Italian National Action Plan on GPP (PAN GPP 2008)

http://www.minambiente.it/home\_it/menu.html?mp=/menu/menu\_attivita/&m=Acquisti\_Verdi.html

- Ministerial Decree no 107, 8 May 2008 and modification and extension (Ministerial Decree 102, 3 May 2013)
- The PAN GPP defines the environmental criteria for the public procurement of 11 categories:
  - o Furniture
  - Construction
  - Waste treatment
  - Street furniture
  - Public lightning
  - o Electronics
  - o Footwear and textile products









- Stationery
- Food service (canteen)
- Cleaning service
- Transport

# Legislative Decree 2005/08/19 no. 192

- Transposes the European Energy Performance of Buildings Directive 2002/91/EC (EPBD) about the improving of energy efficiency in the construction sector
- The law also introduces the certification for the energy building performance needed to make effective every lease or purchase agreement of a house

#### **ECOSMES**

#### http://www.ecosmes.net

 Web portal with information, training and tools on SCP (developed by "LCA and Ecodesign Laboratory" of ENEA)

# ENEA Report: "Efficient Energy Use in buildings-Regulations and Technologies"

http://www.efficienzaenergetica.enea.it/doc/pubblicazioni/V2008\_19-EnergiaEdifici.pdf (in Italian)

• Presents the current regulations in the topics of energy efficiency in buildings and the innovative technologies that can be applied to project and optimise the building envelope

# Observatory of Local and Regional Energy and Environmental Policies

http://enerweb.casaccia.enea.it/enearegioni/UserFiles/OSSERVATORIO/Sito/osservatorio.htm (in Italian)

- ENEA, in cooperation with Italian Regions, has developed a website aimed at identifying and analysing all regional activities in the field of energy and environment
- The survey aims to identify and collect all regional and local initiatives, legal proceedings and activities in these topics

## Water, carbon and ecological footprint

- The Water Footprint of a product is the volume of freshwater appropriated to produce the product, taking into account the volumes of water consumed and polluted in the different steps of the supply chain
- The carbon footprint is the amount of greenhouse gases emissions caused by an organisation or a product









- The ecological footprint represents the amount of biologically productive land and sea area necessary to supply the resources a human population consumes, and to assimilate associated waste. Using this assessment, it is possible to estimate how much it would take to support humanity if everybody followed a given lifestyle
- The target group is represented by companies and organisations

# 4.2.3. Related to the entire supply chain

# **Effizienza Energetica Website**

http://www.efficienzaenergetica.enea.it/ (in Italian)

 Website developed by ENEA on energy efficiency, containing several documents and information on the following main topics and their relationships with energy efficiency: buildings, transport, industry, agriculture and electricity production, as well as main Italian regulations and projects on innovative energy technologies

# 4.3. Labelling

Which resource efficient labelling exists?

 Italy does not have a national environmental label (of type I or type III according to ISO 14020). We reported the most used ones in Italy

## 4.3.1. Ecolabel

- 4.3.2. Energy labels (i.e. electric consumptions of electronic equipment's, or energy efficiency of a house)
- 4.3.3. PEF
- 4.3.4. Energy Star
- 4.3.5. LEED Certification
- 4.3.6. EPD









# 4.3.7. Blue Angel

#### 4.3.8. Nordic Swan

# 4.4. Standards

Which standards regarding the measurement of Resource Efficiency exist?

#### 4.4.1. ISO 14001

http://www.iso.org/iso/home/standards/management-standards/iso14000.htm

• The ISO 14000 family addresses various aspects of environmental management. It provides practical tools for companies and organisations looking to identify and control their environmental impact and continuously improve their environmental performance

# 4.4.2. Legislative Decree no. 15, 16 February 2011

Transposition of the European Directive 2009/125/CE on Eco-design of products



