ITALY

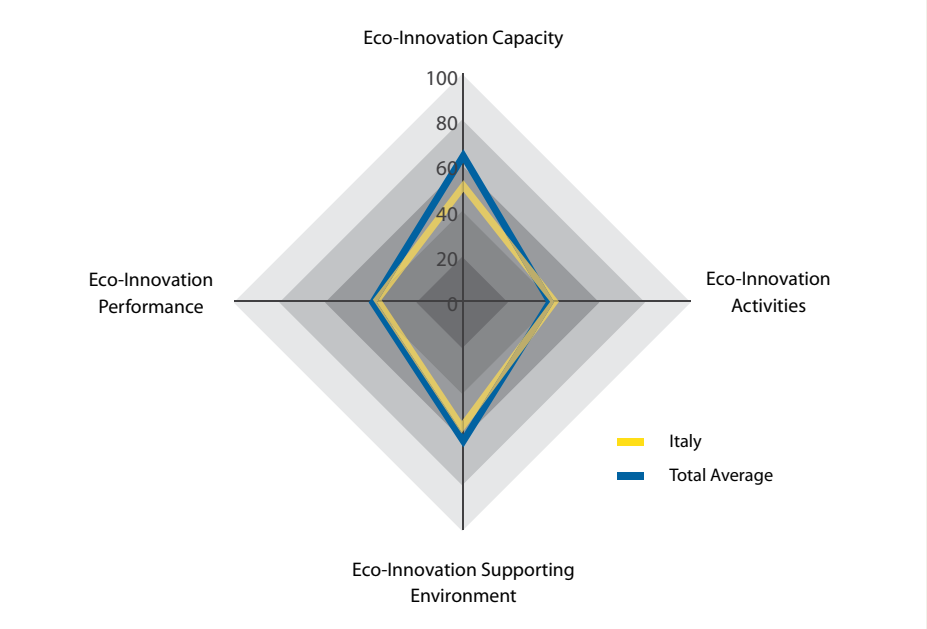

Fig. 14 Result analysis of Italy

Country Result & Analysis

Based on 20 indicators, which are aggregated into four criteria, Italy scores slightly below the average (47/100) of ASEI. In terms of "eco-innovation capacity", Italy scores below the average in "economic competitiveness", "general innovation capacity" and "awareness level on sustainability management". However, Italy shows high score in the "Value of Investment in Green Technology SMEs". In regards to the "eco-innovation activities", Italy scores above the average in the "number of green patents", and the "level of environmental management". Yet, Italy scores much below the average regarding the "level of commercialized green technology SMEs". The score of "eco-innovation supporting environment" is pulled down by the low "investment maturity of green technology industry" and small "public spending on R&D in green industry". However, the country shows high "level of systematic environmental laws" and "commitment to international environmental agreed goals". "Eco-innovation performance" level is slightly above the average backed with good score on level of "CO2 intensity" and "environmental impact on society" and below average score for remaining indicators. Overall, Italy ranks slightly below average on the ASEI index.

Italy's Key Eco-Innovation Environment

Italy does not demonstrate any national level policy work that directly refers to supporting eco-innovation, but in line with EU's vision, the concept of eco-innovation and sustainability is diffused into its environmental policy mix. As Italy is one of largest countries in Europe and one of the six founding members of the European Community founded in 1957, Italy has a significant position within the EU. Therefore, the country seems to do its best to follow philosophy of the EU including the EU's vision for sustainable development strategy by showing relatively high commitment toward international environmental agreed goals. Being one of the countries with largest spending on environmental protection related area, Italy's mix of policy measures and programs in the field of energy, climate and resource use are stimulating eco-innovation activities.

Key National Measures Targeting Greenhouse Gas (GHG) Reduction

Italy's main eco-innovation activities are related to renewable energy and have emerged in effect of the national set target for GHG reduction. Reducing GHG emission is one of primary objectives of the Italian government. Currently, Italy's policy measures addressing GHG reduction mainly focus on promoting deployment of renewable energy sources. Italy's effort to increase the use of renewable energy is actually part of the country's obligation as a member country of the EU; in the EU's Renewable Energy Roadmap, it is proposed that the EU shall reach the mandatory target of 20 percent for renewable energy's share of energy consumption by 2020.[58] To reach the European and the national target of increasing the renewable energy production, a number of policy measures and incentive programs are provided to support development and diffusion of renewable energy sources. One of them is an incentive scheme called 'green certificate system,' which gives two options to electricity producers; either meet the mandatory share of electricity production from renewable sources or buy green certificate in the market. In March 2011, the Italian government announced its adoption of the Renewable Energy Law. Under this law, a feed-in-tariff system is planned to replace the green certificate system by the year 2015. Following the newly introduced law, feed-in-tariff will be applied to wind farms operated after 2012 and involves an auction process for larger projects. Incentive tariffs for solar energy have been applied since 2007 and will continue to be applied according the Renewable Energy Law. Italian citizens are also eligible to receive tax incentives in regards to renewable energy. According to the Renewable Energy Law, investors putting their money in renewable energy sector may take off 55 percent of the total investment costs from their tax bill.[59] Overall, the government is putting efforts to encourage both the renewable energy industry and the investors.

The Increasing Interest of SMEs for Eco-Innovation Products and Services

Italy's economy centers on SMEs. Approximately 99 percent of companies in Italy account for SMEs, and they are responsible for 75 percent of all workforce and 60 percent of total production and exports.[60] In the recent years, there have been clear evidences of growing interest among SMEs to develop and produce 'eco-sustainable' products and services. In spite of the country's on-going economic crisis, there is a steady growth in SMEs' green investments mainly focused on increasing energy efficiency. Italian SMEs are quick to respond to changes in the industry based on its agile characteristic, and they have experienced a rapid growth through strong collaboration and partnership via SME-based industrial districts called 'clusters.' The Ministry for Economic Development grants funds to SMEs with focus on innovation and renewable energy. This is active especially in Southern Italy. Italian regional agencies also manage regional guarantee funds for specific industry, e.g. Agency "Veneto Sviluppo" provides available funds to specific industry. Italian SMEs are among active participants of European project, EcoSMEs. EcoSMEs was set up with the purpose of providing information and raising awareness of eco-innovation among SMEs in Europe. Through EcoSMEs, SMEs can receive information and training on starting eco-innovation interventions including related policies and regulations. Growing involvement of SMEs in eco-innovation hopes to further develop the eco-business in Italy.

Industry Specific Cluster Effort to Eco-innovate

In 2009, the country set up a new law on "network contracts," (NET) which aims at supporting collaboration among SMEs to increase their potential for innovation, research, and development. This policy instrument supports the establishment and emergence of clusters or networks designed to be particularly suited for SMEs.

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[58] *European Commission (2007), Renewable Energy Road Map*

[59] *Library of Congress, Italy: Renewable Energy Law Adopted http://www.loc.gov/lawweb/servlet/lloc_news?disp3_l205402587_text*

[60] *Eurostat (2011)*

This action is being undertaken within the framework of the Small Business Act. It is stated that eco-innovation in the country is mainly understood as "environmental performance improvement, and not innovation in the cleantech sector". [61] Thus, eco-innovation activities in clusters are implemented in a way to improve environmental performance of different industries. Clusters in textile show high interests and voluntary efforts in promoting eco-innovation with relatively large number of patent applications filed for green technologies in the textile sector, and 'sustainable fashion' shows high potential of development. Cluster-level eco-innovation activities in the textile industry have been implemented in different regions of Italy. In leather and textile clusters in the region Prato, members within the clusters cooperate to be EMAS certified and reduce costs by sharing related sources and knowledge.[62] The Pratese Industrial Union, founded in 1912, identifies environmental challenges within the cluster and tries to increase energy efficiency, reduce industrial emissions, and lower water consumption intensity. Confartigianato Prato is another public organization initiated to support services of SMEs with 5000 members. The organization identifies key environmental challenges for local textile industry such as waste water dumping and challenges water quality management and water supply issues.[63]

Eco-Innovation Case Studies

CASE STUDY 1

Prada

Prada, founded in 1913, is an Italian fashion label specializing in luxury goods for men and women such as ready-to wear, leather accessories, shoes, luggage and hats. Prada introduces merging of both sustainability and cradle2cradle (C2C) into the Prada value chain. Prada's C2C products start with using alternative materials for their products in the future. For example, nylon is replaced with eco-intelligent polyester, and leather with salmons' skin. Prada eyewear is another good example of C2C production as frames and hinges made with bio-plastics or polymer derived from castor oil and lenses are recyclable to be re-used for cameras or binoculars. In addition, Prada's flagship stores are to be built within the C2C philosophy using Carbon Negative Cement, air-purifying wall papers, and construction panels made from cow manure and other recycled content. Prada is proactively setting a good example in the fashion industry as an eco-innovative company through successful environmental management system and marketing. To successfully apply the concept of sustainability and C2C, the company plans to make both financial and social investment.

Source: Leesmetn, Fahey, Fordham, Domokosch, Negahbani, Introducing sustainability into High fashion through PRADA

[61] *Greenovate! Europe EEIG (2011), Eco-Innovation and National Cluster Policies in Europe*

[62] *Greenovate! Europe EEIG (2011), Eco-Innovation and National Cluster Policies in Europe*

[63] *Greenovate! Europe EEIG (2011), Eco-Innovation in Cluster Organisations in the Chemical and Textile-Clothing-Leather Sectors*

CASE STUDY 2

Piaggio

Piaggio is a SME manufacturing two-wheeled motor vehicles and is among leaders in its sector. The Piaggio Group aims to "meet the most progressive needs for mobility while reducing the environmental impact and consumption of its vehicles, ensuring customers excellent levels of performance." The company seeks to be an environmentally friendly company not only by producing eco-friendly products but also by making eco-innovative efforts in production, distribution and management process. Piaggio started developing eco-innovative vehicles since 1978. In 2009, Piaggio started commercializing the first hybrid scooter in the world. This hybrid scooter reduces the emission of pollutant gases and CO2 in urban areas by making greater use of renewable and sustainable sources of energy. The group visions to grow further in two business sectors: the two-wheeler business (scooters and motorcycles) and Commercial Vehicles business. These two business sectors aim to accomplish eco-technological innovation and sustainable mobility.

Source: http://www.piaggiogroup.com/en

CASE STUDY 3

SOLWA Srl

SOLWA Srl (SOLWA), Solar Water, provides service for depuration of water. SOLWA was founded by various experts from industry and academia in hopes to provide its service targeting global regions. SOLWA's product enables depuration and desalinization of water from polluted and salt-rich resources to drinkable and agriculturally suitable quality of water using only solar power. SOLWA's product not only solves problem of water pollution and water scarcity but also provides a solution to the usage of low quality water irrigation in many barren areas. SOLWA's solar still can easily be constructed with materials which are easily accessible in any country and territory. The company's solar still generates maximum efficiency in solar energy rich areas such as tropical regions. The basic structure of SOLWA's solar still starts with converting the solar beams into heat. The heat heats up the salt water inside an isolated structure, green house, until it evaporates. Then, the water vapor from evaporation is collected inside the green house. SOLWA's eco-innovation solution aims to protect the environment and save energy. The system is still in the experiment stage, but recently, SOLWA successfully implemented its service in Peru as a pilot in collaboration with the National University of Trujillo and the University of Venice.

Source: http://www.ideassonline.org/public/pdf/br_48_01.pdf, http://www.solwa.it/index.php?lang=en