Eco-innovation in Cyprus

EIO Country Profile

2013
Eco-Innovation Observatory

The Eco-Innovation Observatory functions as a platform for the structured collection and analysis of an extensive range of eco-innovation information, gathered from across the European Union and key economic regions around the globe, providing a much-needed integrated information source on eco-innovation for companies and innovation service providers, as well as providing a solid decision-making basis for policy development.

The Observatory approaches eco-innovation as a persuasive phenomenon present in all economic sectors and therefore relevant for all types of innovation, defining eco-innovation as:

“Eco-innovation is any innovation that reduces the use of natural resources and decreases the release of harmful substances across the whole life-cycle”.

To find out more, visit www.eco-innovation.eu

Any views or opinions expressed in this report are solely those of the authors and do not necessarily reflect the position of the European Commission.
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A note to Readers

Any views or opinions expressed in this report are solely those of the authors and do not necessarily reflect the position of the European Union. A number of companies are presented as illustrative examples of eco-innovation in this report. The EIO does not endorse these companies and is not an exhaustive source of information on innovation at the company level.

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Summary

Cyprus is ranked low among the EU-28 countries in terms of eco-innovation performance, as illustrated in the overall 2013 Eco-IS. On an EU average of 100, Cyprus scores only 44, nearly a third of the score of the leading countries (Sweden, Finland, Germany). This places the country just second from the bottom in the EU28 ranking of eco-innovative countries, below several New Member States with a small population, such as Estonia, Latvia and Malta.

Eco-innovation in Cyprus is predominantly produced by individual actors – research institutes or enterprises. As such there are no distinct and mature eco-innovation sectors. Of particular importance are developments in renewable energies given the country’s rich natural capital. The agricultural and food industries are also contributing to eco-innovative solutions. Finally, there are several ongoing EU funded projects which cover issues such as: waste management; industrial waste; water management at the scale of the river basin; air quality; bio-fuels and industry-production.

In terms of eco-innovation drivers there is a wide range of EC supported funding opportunities for R&D which include eco-innovations. Also, the Cypriot governments’ environment related regulations and commitment to finding answers to pressing problems like water and energy shortages and excess of waste and air pollution are equally impacting the growth of eco-innovative solutions. Concerning R&D capacity the Innovation Union Scoreboard (2013) classifies Cyprus among the ‘Innovation Followers’ which is a significant progress in comparison with previous years. Cyprus also benefits from its significant natural capital in renewable energies – solar, wind.

Regarding barriers the present economic climate is inimical to investing in eco-innovation. Public spending for R&D has stagnated, while traditionally business spending for R&D in Cyprus is low. The Cypriot economy is heavily dominated by SMEs; hence, it exhibits a lack of sectoral concentration and of a critical mass of innovative business. Finally, access to venture capital and private sources of funding is also difficult and often prohibits the involvement of SMEs in research projects.
Introduction

Cyprus is one of the countries already affected by the consequences of climate change. The annual mean temperature during the period 1980-2010 was 18.2°C and was 1.4°C higher than that of the previous period 1900-1990 (17.2°C). Changes were also detected in the mean annual rainfall (8% reduction during the same period). In the next 30 years a gradual temperature increase between 1-3°C is expected. (Ελεγκτική Υπηρεσία της Δηµοκρατίας, 2012: The Cyprus Institute, 2011).

The island’s main environmental concerns have to do with water resource problems (no natural reservoir catchments, seasonal disparity in rainfall, sea water intrusion to island's largest aquifer, increased salination in the north); water pollution from sewage and industrial wastes; coastal degradation; loss of wildlife habitats from urbanisation; CO2 emissions and waste management.

These are for the better part related to the following structural socio-economic features: urbanisation and the increasing tourist inflows which contribute to the expansion of artificial areas and the dangers posed to biodiversity. b) The fact that the island’s energy needs are almost exclusively covered by oil imports. c) The heavy reliance on road transport which contributes to high CO2 emissions and air pollution. d) The steady increase in waste production that has been caused by tourism and the significant economic development of the last decades and e) the concurrent absence of waste management systems. (Cyprus Strategic Development Plan 2007: MANRE, 2011).

Concerning the latter in particular, per capita municipal solid waste generation is one of the highest in the EU (760 kg/cap in 2010), well above the EU average. The waste management system in Cyprus is constrained by the lack of appropriate facilities to treat waste or hazardous waste (for example, there are no waste incineration plants in Cyprus). As a result, the overriding option for MSW management is landfilling which takes up around 80 % of the generated waste. (Bakas 2013).

In terms of R&D, intensity remains low at 0.48% of GDP in 2011 (Innovation Union, 2013) but overall a positive trend is observed over the past decade. The research system which has developed from scratch in the last two decades is predominantly financed by the public sector (BERD stood at 0.10% of GDP in 2009). Enterprises seem to lack the size and capacity so systematically develop innovative processes and new products, while strategically it is more convenient for them to import innovation from abroad.

The Cypriot economy is characterised by the predominance of the service (tertiary) sector, which radically increased from 55.1% of GDP in 1980 to 79.1% of GDP in 2010. At the same time, the market is almost exclusively populated by very small enterprises (93.1% of total), with the average size being 5.5 employers per company (2010). A great part of these companies are concentrated in sectors with low value-added. Equally, Cypriot companies – and more so newcomers - find it difficult to secure sufficient levels of funding. These features negatively impact the economy’s capacity to adopt technological and management innovations (Cyprus Strategic Program Sustainable Development and Competitiveness 2013).

At the same time, like other southern European countries Cyprus has been affected by the European debt crisis. Between 2009 and 2013 the economy shrunk by 2 % of GDP annually (Eurostat 2014b), while unemployment climbed from 3.7% in 2008 to almost 17% in 2013 (Eurostat, 2014a). The economic problems climaxed in 2013 with the country requiring an EU-IMF financial bailout. The dampened economic environment negatively affects public and private investment in eco-innovation.
The analysis in this section is based on the EU 28 Eco-innovation scoreboard (Eco-IS) for the year 2013. Eco-IS via its composite Eco-innovation index demonstrates the eco-innovation performance of a country compared with the EU average and with the EU top performers. Eco-IS is based on 16 indicators which are aggregated into five components: eco-innovation inputs, eco-innovation activities and eco-innovation outputs as well as environmental outcomes and socio-economic outcomes.

Figure 2.1 EU28 Eco-innovation scoreboard 2013, composite index

Source: EIO, 2013

Cyprus is ranked low among the EU-28 countries in terms of eco-innovation performance, as illustrated in the overall 2013 Eco-IS (Figure 2.1). On an EU average of 100, Cyprus scores only 44, nearly a third of the score of the leading countries (Sweden, Finland, Germany). This places the country just second from the bottom in the EU28 ranking of eco-innovative countries, below several New Member States (MS) with a small population, such as Estonia, Latvia and Malta. Compared with the 2012 Eco-IS, there has been a decrease in Cyprus’ overall score.

Eco-innovation inputs

The eco-innovation input index is based on the national indicators of the government’s environmental and energy R&D appropriations and outlays, R&D personnel, and cleantech investment. In this component, Cyprus ranks last with a score of 13 (EU average index 100).

In 2012 total government environmental and energy R&D appropriations and outlays amounted to 0.002% of GDP with an EU average of 0.043. The total R&D personnel and researchers for Cyprus in 2012 counted for 0.41% of total employment (EU average of 1.21%). Much like in Greece the economic crisis has deeply impacted the capacity of the public sector to employ R&D personnel.
No green early stage investments were reported during the period 2010-2013. Considering that the total investments in research and innovation are limited, reaching only about 0.48% of GDP (2011) it is unlikely that investments in eco-innovation projects would be significant.

**Eco-innovation activities**

The eco-innovation activities index of the Eco-IS is based on the statistics of ISO 14001 certified companies and of business innovation activities aimed at material efficiency and energy saving. Cyprus scores below the EU28 average in this index, coming second from the bottom (surpassing only Greece). According to Eco-IS the percentage of firms having implemented material efficiency innovations was 0.06 of all firms (EU average 0.13%). The percentage for energy saving was 7.62% of all firms (EU average 14.50%). Finally, the number of ISO 14001 certified organisations in Cyprus in 2012 was 32 translating into 53.25 registered organisation per million of inhabitants.

**Eco-innovation output**

Cyprus scores below the EU average in this index. The country’s score receded from 107 in the 2012 Eco-IS to a mere 68 (EU index 100). There were no eco-innovation related patents reported in 2010. The poor performance reflects the relatively limited available resources and the difficulty of translating research into technological innovation. The island is a good performer in eco-innovation relation publications, with 12.76 publications per million inhabitants (2012). In this category it clearly surpasses the EU average (8.84), a fact that indicates an increased interest on eco-innovation by the academic/research community.

Finally, in eco-innovation related media coverage (measured as the number of hits in all electronic media covered by "Meltwater News" with key-word "Eco-innovation" translated in all EU-28 languages) Cyprus once more scored below the EU average. There were 4 hits counted in 2013 based on Meltwater’s screening of 94 electronic media sources. Hence, Cyprus score was 59 (EU index 100). These considerations however have to be treated with some caution given the small size of the population.
Resource efficiency outcomes

The environmental outcome index is based on combined national statistics on domestic material productivity, domestic water productivity, inland energy productivity, and GHG emissions intensity. Cyprus is positioned relatively near the EU28 average in the environmental outcomes index. The country obtained an overall score of 72 (EU index 100), showing an increase from 66 in 2012 (but lower than the 74 it scored in 2011). The country performance in this index is impacted by the relatively high consumption of fossil fuels (hence increased GHG emissions), used among others, for the production of electricity.

Material productivity (GDP/DMC) reached 1.09 €/kg (2011) when the EU average was 1.74 Euro/kg. In comparison in Malta material productivity was 3.16 €/kg, in Estonia 0.80 Euro/kg and Latvia 0.73 €/kg. Water productivity, measured as GDP generated by domestic water consumption, was 6.27 €/m3 in for the period 1996-2005, equal to 49% of the EU27 average. Cyprus' water footprint in the same year was approximately 1887 m3 per capita.

Cyprus performs close to the EU average, with a score of 97% in energy productivity (GDP generated by domestic energy use). The country's productivity reached 7.77 €/ton of oil equivalent (2011). Finally, GHG emissions intensity (amounts of GHG emissions generated per unit of GDP) was at 0.45 kg of CO2 equivalent/GDP in 2011, slightly above the EU27 average for the same year (0.36 kgCO2e/€).

Socio-economic outcomes

Cyprus’ performance in socio-economic outcomes (in 2012) was the weakest in the EU. The country’s score was 13 (EU index 100) showing a remarkable dip from 2012 when the country scored 120; and above the EU average. This fluctuation is mostly the result of erosion in eco-innovation exports and a reduction in the people employed in the eco-innovation sector as a result of the overall impact of the economic crisis.

Eco-industry exports amounted to €2 million (2012) and were 0.12% of all exports (EU average of 0.59%). Employment in eco-industries was a mere 0.05% of total employment across all companies (2012).
3 | Selected eco-innovation areas and new trends

Eco-innovation in Cyprus is predominantly produced by individual actors – research institutes or enterprises. As such there are no distinct and mature eco-innovation sectors.

Of particular importance are developments in renewable energies given the country’s rich natural capital. In Cyprus, electricity from renewable sources is mostly promoted through a combination of a subsidy scheme, premium tariff as well as a net metering scheme. Cyprus has also inaugurated a tender for PV installations and renewable energy sources for heating purposes are eligible for a subsidy. The country performs well in the use and construction of solar water heating systems; 92% of households are equipped with solar water heaters and 53% of hotels have installed large solar water heating systems. Cyprus aims to generate 13% of the gross final energy consumption from renewable energy sources by 2020. (EREC, 2009).

Additionally, a number of EC funded research and innovation projects in the field of eco-innovation are currently under implementation.

In the frame of the Life+ instrument there are several ongoing projects in Cyprus, which cover issues such as: waste management (demonstrating a sustainable conversion technology for energy generation and a sustainable processes for managing waste and wastewater); industrial waste (the demonstration of an environmentally and financially sustainable procedure for the management and treatment of returned, expired dairy products); water management at the scale of the river basin (treating and valorising grey water, strengthening the scientific basis of water management programmes, including criteria development for pollutants with a high potential impact on environmental quality and biodiversity); air quality; climate change (demonstrating a sustainable conversion technology for energy generation, and sustainable processes for waste and wastewater handling); and industry-production (demonstrating alternative methods for the production of bricks, ceramics and cement using waste quarry slurry as a raw material). The projects are being implemented by national authorities, universities and a large enterprise (Vivartia Cyprus) and will run for between 24 and 42 months. (Life + Program, 2012).

Moreover, in 2012 the NER300 funding programme implemented by the European Commission with the collaboration of the European Investment Bank (EIB) awarded HeliosPower in Cyprus with €46.6 M. The project is a large-scale Stirling dish power plant with a total installed capacity of 50.76 MWe, located on the eastern side of Cyprus, near the city of Larnaca. The plant is expected to have 16920 Stirling dish units. The total field area required for the Project is around 200 ha. High voltage 132 kV power lines, which run along the southern boundary of the site, will be used to connect the plant to the national grid.

The agricultural and food industries are also contributing to eco-innovative solutions: waste treatment in olive oil production; compost produced from recycled plants (such as lawn, garden clippings, tree leaves, vine leaves etc.); organic and energy efficient production of wine and olive oil etc. (Solival, 2010; Cyprus Mail 6/11/2013).
Eco-innovation drivers

Cyprus does not have a cohesive framework for the support of eco-innovation and eco-industries. However, there are both supply and demand factors that play a role in the growth of eco-innovations. In terms of supply, there is a wide range of EC supported funding opportunities for R&D that also support eco-innovations. On the demand side the Cypriot governments' environment related regulations and commitment to finding answers to pressing problems like water and energy shortages and excess of waste and air pollution are also positively impacting the growth of eco-innovations.

Concerning R&D capacity the Innovation Union Scoreboard (2013) classifies Cyprus among the 'Innovation Followers' which is a significant progress in comparison with previous years. The governments have introduced a set of measures to encourage stronger industry participation in research and innovation. Over the last decade, Cyprus has been progressing at a pace similar to the EU average annual growth in terms of percentage of public expenditure in R&D, the relative share of new doctoral graduates of population aged 25-34 or the relative share of international scientific co-publications. (DG Research, 2013: Innovation Union, 2013).

Cyprus also benefits from its significant natural capital in renewable energies – solar, wind –, and innovation in agriculture and the food industry. (Re-shaping Project, 2011).

Barriers to eco-innovations

On the other hand, the development of eco-innovation in Cyprus is hindered by a series of structural factors.

Much like in Greece, the present economic climate is inimical to investing in eco-innovation. (Lange, 2014). Public spending for R&D has stagnated, while traditionally business spending for R&D in Cyprus is low.

The latter phenomenon is related to the fact that the Cypriot economy is heavily dominated by SMEs; hence, it exhibits a lack of sectoral concentration and of a critical mass of innovative business. (Cyprus Strategic Development Plan 2007). This, in turn, reduces employment prospects for R&D related human resources and weakens the impact of relevant public policies and investments in education. Policy and funding measures and mechanisms for promoting eco-innovation in Cyprus depend to a significant extent on co-financing through the EU structural funds. Innovative SMEs, even in the leading economic sectors of the country, lack the critical mass which would facilitate smart specialisation and the development of sectors with international competitive advantage in eco-innovation.

Finally, access to venture capital and private sources of funding is also difficult and often prohibits the involvement of SMEs in research projects. The range of financial instruments is very limited to support a satisfactory development of eco-innovation in the private sector.
Policy and funding measures and mechanisms promoting eco-innovative research in Cyprus in 2013 still largely depended on co-financing through the Structural Funds. The majority of these measures addressed the development of new research infrastructure, the enhancement of collaborations among research organisations and the private sector, the facilitation of technology transfer, as well as the strengthening and enhancement of training, career development and mobility of researchers. It should be noted that the policy and funding measures have a generic focus on climate change and sustainability issues and less so on eco-innovation. (DG Research, 2013).


In addition, an Energy Audit System has been established. Law 201(I) 2012 amended the previous framework in relation to energy performance of buildings (transposing the EPBD/Directive 2010/31/EC) and set the regulatory framework for energy auditing in Cyprus.

Financial incentives are also provided via support schemes for the utilisation of RES and for energy conservation. The Special Fund for Renewable Energy Sources and Energy Efficiency, overseen by the Ministry of Commerce, Industry and Tourism, is the implementing authority with a budget of 25 million EUR (for 2012). Individuals and organisations that do not exercise economic activity are supported through a subsidy when installing thermal insulation on buildings (up to 30% of the costs). (Υπουρείο Εμπορίου, Βιομηχανίας και Τουρισμού, 2013). Private and public entities which exercise economic activities are also eligible for financial support to implement energy efficiency measures. (Maroulis, 2013; Energy Efficiency Watch, 2013).

Renewable energy sources are promoted through the ‘Support Scheme for the Utilisation of RES and Energy Conservation’ and the ‘Support Scheme for Electricity Generation from Wind Energy, Solar Energy and Biomass’ (e.g. wind power installations, central water heating systems, solar thermal system, installation of biomass plants, PV systems for domestic and public use, small hydro-generators). The Special Fund for RES and Energy Efficiency is the implementing authority. (Maroulis, 2013).

Fixed feed-in tariffs are also provided through the ‘Support Scheme for Electricity Generation from Wind Energy, Solar Energy and Biomass’. Large scale PV systems between 150kW and 10MW were promoted for the first time in 2012 via a tender allocating support for 50MW. Finally, a FiT for wind power plants above 30kW has been in place since December 2012. (Re-shaping Project, 2011).

Furthermore, a new framework of vehicle excise duty was installed at the end of 2012. The new system calculates the duty on the basis of the CO2 emissions of the vehicles.

Finally, in 2013 the Cypriot Energy Regulatory Authority (CERA) started receiving applications for net-metering installations. The goal is to permit around 50,000 to 60,000 households to install net-metering solar projects in the next two to three years. (PV Magazine 11/9/2013; Ενεργειακό Γραφείο Κυπρίων Πολιτών, 2013).
6 | Good practice examples

OLEASTRO ENTERPRISES LTD.

The company runs a unique to Cyprus olive theme park which includes an organic olive grove, the country’s sole ‘green’ olive mill with HACCP and ISO certifications, an olive oil museum, a traditional coffee shop and an olive oil gift shop. The company produces and trades its own certified organic olive oil. Visitors of the park and museum have the opportunity to compare the extraction methods of the past to the modern process of the ecological olive mill. OLEASTRO won the first prize for innovation in the primary sector at the annual Research and Innovation Awards (2013) organised by the country’s Employers Federation (OEV).

Keywords: green olive mill, organic olive oil, agriculture innovation

Link: http://www.oleastro.com.cy/
**Inter-waste**

INTER-WASTE is a Life+ Environment Policy and Governance Project co-funded by the European Union. The duration of the project is 42 months and started on the 1st of January 2010. The implementation of the project took place at Limassol, Cyprus under the coordination of Cyprus University of Technology and with the cooperation of University of Nicosia, National University of Athens, Proplan Ltd. and the Environment Service of the Ministry of Agriculture, Natural Resources & Environment of Cyprus. The project focused on the construction and demonstration of an innovative pilot system consisting of a Membrane Bioreactor System for wastewater treatment and an Anaerobic Treatment Unit. The anaerobic digester receives a variety of organic waste including sludge generated from the Membrane Bioreactor System as well as other bio-waste. The biogas product can be used in gas turbines in order to be converted to electricity, thus providing an efficient and renewable energy source.

**Keywords**: wastewater, organic waste, electricity, renewable energy

**Link**: [http://www.interwaste.org/](http://www.interwaste.org/)

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**MED ALGAE**

The project MED ALGAE 'Production of biodiesel from Algae in selected Mediterranean Countries' is a new technology project which can contribute to the goals of the EU strategy on 'Climate change and energy'. The project started in January 2012 and has a duration of 36 months. The methodology includes all stages in the production of biodiesel from microalgae: sampling of seawater or freshwater, the selection of microalgae, species identification, cultivation of microalgae, harvesting and extraction of biodiesel and determination of properties of biodiesel produced in accordance with Standard EN14214 and its testing.

The project is coordinated by the Agricultural Research Institute of Cyprus in collaboration with the Cyprus Energy Agency. The consortium is consisted of 12 organisations: research organisations, academic institutions, energy agencies, private organisations from 6 countries: Cyprus, Greece, Italy, Malta, Lebanon and Egypt. Five pilots will be established in: Cyprus, Italy, Malta, Lebanon and Egypt.

**Keywords**: biodiesel, algae, climate change, energy

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Phone Interview, 2014. Prof. Manfred Lange 27/2/2014.
### ANNEX 1. Policy measures addressing eco-innovations in Cyprus

<table>
<thead>
<tr>
<th>Group of policy measures</th>
<th>Type of policy measure</th>
<th>Specific measure</th>
<th>Focus of policy measure (tick if relevant)</th>
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<tr>
<td><strong>SUPPLY SIDE FOCUS</strong></td>
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<td>Support for R&amp;D in public sector and industry</td>
<td>R&amp;D funding</td>
<td>Eurostars Cyprus, Specific Action of the «EUREKA Cyprus» Programme, supports the participation of Cypriot organisations in successful EUROSTARS projects. The «EUROSTARS Cyprus» Specific Action, aims primarily to enhance the competitiveness of Cypriot R&amp;D Performing SMEs, the networking and co-operation with organisations from abroad, the development of new or improved innovative products, processes or services through their participation in international industrial R&amp;D Projects. <a href="http://www.research.org.cy/EN/int_cooperation/eurostars/specific_action.html">http://www.research.org.cy/EN/int_cooperation/eurostars/specific_action.html</a></td>
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<td></td>
<td>Collaborative grants</td>
<td>Sustainable Development Programme</td>
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<td>The Sustainable Development Programme managed by the Research Promotion Foundation consists of four Actions: Natural Environment; Urban and Built Environment; Agriculture and Animal Farming; Fisheries and Aquaculture. Energy is addressed as part of these: the Urban and Built Environment Action, for</td>
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<td><strong>Equity/business support</strong></td>
<td>Venture capita funds</td>
<td>Jeremy co-financing product a new financial product implemented in the framework of the adoption of the Community Initiative JEREMIE in Cyprus and in accordance with which the Bank of Cyprus, the Government of the Republic of Cyprus and the European Regional Development Fund (ERDF) co-finance new loans for amounts of up to €100,000 to small and micro enterprises whose immediate objective is to support, expansion and strengthening of those businesses. These new loans will be available under particularly favourable terms, in relation to the repayment period, the grace period, the collateral required and in relation to pricing policy. <a href="http://www.bankofcyprus.com.cy/en-GB/Cyprus/BUSINESS/Small-enterprises/Financing/NEW-Business-Loan-Jeremie/">http://www.bankofcyprus.com.cy/en-GB/Cyprus/BUSINESS/Small-enterprises/Financing/NEW-Business-Loan-Jeremie/</a></td>
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<td>Public guarantee funds</td>
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<td><strong>Eco-innovation in Cyprus</strong></td>
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<td><strong>R&amp;D infrastructure</strong></td>
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<td>Technology Programme</td>
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<td>The Technology Programme, managed by the Research Promotion Foundation, supports research in a number of scientific fields that are considered fundamental to the improvement of the state-of-the-art technology. The programme supports projects within the thematic areas of Materials, Nanotechnology, Energy, Applied Sciences and Engineering. <a href="http://setis.ec.europa.eu/energy-research/country/cyprus">http://setis.ec.europa.eu/energy-research/country/cyprus</a></td>
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<td><strong>Fiscal measures</strong></td>
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<td>Tax incentives for R&amp;D and start-ups</td>
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<td>- Tax deductions apply to both individuals and companies, with regard to scientific and research expenditure, expenditure for the acquisition of patent rights, or rights for use of patent.</td>
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<td>Tax incentives for R&amp;D personnel</td>
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<td>Tailored training courses for companies, entrepreneurs</td>
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<td>The Human Resources Development Authority of Cyprus implements Lifelong Learning Programmes targeting SMEs and entrepreneurs</td>
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<td><strong>Education, training and mobility</strong></td>
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<td>Advise/consulting for start-ups, companies, entrepreneurs</td>
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<td>The Ministry of Commerce, Industry and Tourism has established the Department of One-Stop-Shop for setting up a business, which provides information and guidance to potential investors, as well as aftercare service to existing investors.</td>
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<td>- The Ministry of Commerce, Industry and Tourism has established the Foreign Investors Service Centre, which aims at promoting Cyprus as an international business and R&amp;D centre.</td>
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<td>Placement schemes for students</td>
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<td>Universities in Cyprus participate in the ERASMUS-MUNDUS student exchange programme.</td>
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<td>- Selected Cypriot SMEs participate in the LEONARDO programme, offering stage opportunities to students</td>
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<td>Support for R&amp;D workers recruitments</td>
<td>The Cyprus Institute: The CyI is being developed by establishing research centers which address challenging problems that are important at both the regional and international levels. Its research centers are developed in partnership with leading institutions in the respective thematic areas. The Energy, Environment and Water Research Center (EEWRC) is developed in partnership with the Massachusetts Institute of Technology, the Science and Technology in Archaeology Research Center (STARC) in partnership with the Centre de recherche et de restauration des musées de France (C2RMF), headquartered in the Louvre and the Computation-based Science and Technology Research Center (CaSToRC) in partnership with the University of Illinois.</td>
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<td>Competence centres, clusters, science-technology parks</td>
<td>Technology platforms and innovation networks</td>
<td>Networks and partnerships</td>
<td>The ERMIS Research and Incubator Centre (established in 2003) is sponsored by A.S. Cyprus College and supported by RTD Talos, the Science and Technology Park of Crete and Spidernet Services; it aims at providing infrastructure and services towards nurturing and transforming innovative ideas into successful business ventures, encouraging spin-offs from research / academic establishments through the exploitation of research results, using new technologies developed at the incubator to upgrade existing production units, and building the capacities of human resources.</td>
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<td>Diogenes is a business incubator specialising in high technology, aiming at supporting the development of entrepreneurship and start-up companies in Cyprus.</td>
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<td>However none of its companies focuses on environmental activities / eco-innovation.</td>
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## Regulations and standards

| Regulations and standards | Performance standards, labeling, certification | The Plan for the provision of government grants aiming at the promotion of EMAS certification in businesses supports SMEs in transition from ISO 14001, as well as SMEs without previous environmental management certification. | x | x |

## Public procurement

| Public procurement | "Green" public procurement of goods and services | An Action Plan for Green Public Procurement in Cyprus was issued in September 2012. The Action Plan describes the framework and the targets of the Programme for the period 2012-2014. | x |

## R&D procurement

## Demand Side Focus

### Technology Transfer

| Technology Transfer | Advisory support for technology adopters | Framework Programme for research, technological development and innovation 2009 - 2010 of the Research Promotion Foundation: Innovation vouchers Action of the 'Innovation' Programme. Projects aim at introducing innovation to SMEs, through the provision of relevant advisory services by research and academic institutes. In 2011-2012 24 proposals submitted and 16 of them have been funded. | x | x |

| Technology Transfer | Financial or fiscal support for technology adopters (e.g. grants for purchasing new technology) | Fixed feed-in tariffs provided through the ‘Support Scheme for Electricity Generation from Wind Energy, Solar Energy and Biomass’. Large scale PV systems between 150kW and 10MW were promoted for the first time in 2012 via a tender allocating support for 50MW. Finally, a FIT for wind power plants above 30kW has been in place since December 2012. Financial incentives are also provided via support schemes for the utilisation of RES and for energy conservation. The Special Fund for Renewable Energy Sources and Energy Efficiency, overseen by the Ministry of Commerce, Industry and Tourism, is the implementing authority with a budget of 25 million EUR (for 2012). Individuals and organisations that do not exercise economic activity are supported through a subsidy when installing thermal insulation on buildings (up to 30% of the costs). Private and public entities which exercise economic activities are also eligible for financial support to implement energy efficiency measures. Renewable energy sources are promoted through the ‘Support Scheme for the Utilisation of RES and Energy Conservation’ and | x | x | x |

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Eco-innovation in Cyprus
the ‘Support Scheme for Electricity Generation from Wind Energy, Solar Energy and Biomass’ (e.g. wind power installations, central water heating systems, solar thermal system, installation of biomass plants, PV systems for domestic and public use, small hydro-generators). The Special Fund for RES and Energy Efficiency is the implementing authority.

<table>
<thead>
<tr>
<th>Support of private demand</th>
<th>Tax incentives for consumers (e.g. for purchasing environmentally efficient products)</th>
<th>Tax reductions for products and services (e.g. VAT reductions)</th>
<th>Demand subsidies (e.g. eco-vouchers, consumer subsidies)</th>
<th>Awareness raising and information provision</th>
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The Eco-Innovation Observatory (EIO) is an initiative financed by the European Commission’s Directorate-General for the Environment. Since 2009 the Observatory has been developing an integrated information hub on eco-innovation addressed to business, policy makers, innovation service providers and researchers. The EIO supports the implementation of the European Eco-Innovation Action Plan of the European Commission.

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