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SwitchMed Magazine

Jordan

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switchmed

We are SwitchMed

SwitchMed is an initiative that supports and connects stakeholders to scale up eco and social innovations.

SwitchMed is an initiative that supports and scale-ups eco and social innovations

The SwitchMed Programme was launched in 2013 by the European Union to speed up the shift to sustainable consumption and production patterns in the Southern Mediterranean, notably through the promotion of circular economy approaches. The Programme aims at achieving productive, circular and sharing economies in the Mediterranean by changing the way goods and services are consumed and produced so that human development is decoupled from environmental degradation.

Its activities benefit 8 countries in the Southern Mediterranean: Algeria, Egypt, Israel, Jordan, Lebanon Morocco, Palestine and Tunisia. Through policy development, demonstration activities and networking opportunities, SwitchMed supports and connects stakeholders to scale-ups eco and social and eco innovations The Programme supports policy makers, eco-innovative small and medium sized enterprises, industries, start-ups and entrepreneurs in the Southern Mediterranean countries, which have identified job creation and natural resource protection as priority issues that also contribute to their economic stability.

SwitchMed, which works with a wide range of stakeholders, is committed to catalyse the market of sustainable products and services in the Mediterranean via:

- Capacity building in industry service providers targeting small and medium sized enterprises for resource efficiency improvements;
- Trainings for start-ups and entrepreneurs to build skills in design, business plan, marketing and financing of sustainable products and services;
- Engagement with policy makers to establish a regulatory and policy framework to boost the market for sustainable products and services;
- Empowerment of citizens and civil society organisations to lead socially innovative solutions addressing environmental challenges;
- An Action Network of stakeholders to link with similar initiatives and networks, exchange information and to scale-up current activities.

SwitchMed is implemented by the United Nations Industrial Development Organisation (UNIDO), the United Nations Environment Programme Mediterranean Action Plan (UN Environment/MAP), the Regional Activity Centre for Sustainable Consumption and Production (SCP/RAC) and the UN Environment's Economy Division. Each of the implementing organisations brings its specialised experience and tools to partner with the eight countries on activities that span policy development, capacity building, business support services, demonstration activities and networking.

The United Nations Industrial Development Organisation (UNIDO) supports the development of green industry and sustainable production in the southern Mediterranean. It does so through a comprehensive approach that both presents the business case of resource efficiency to industries, and helps service providers increase their capacity to deliver sustainable production services matching the industry needs. In addition, UNIDO is cooperating with a number of national institutions addressing policies on sustainable production.

At the start of the project, the UNIDO designed TEST methodology is delivered to the service providers and local professionals. In collaboration with the UNIDO TEST expert team, the service providers identify and select companies to take part in the TEST project, based on the companies potential for improvements and top management commitment. Crucially, the company staff also receive the TEST training, enabling them to implement the technical measures and management solutions identified by the service provider. Their active participation in the training and in the implementation of the project ensures the sustainability of all identified actions at company level.

The TEST implementation approach has to date successfully demonstrated the profitability and effectiveness of introducing best practices and integrated management systems in terms of cost reduction, productivity increase and environmental performance, extending the experience gained to other industries in the region. UNIDO, together with local partners, also promotes business partnerships between local businesses and EU Eco-Innovative companies, creating an area of shared prosperity on the principles of a sustainable and inclusive socioeconomic development.

United Nations Environment Programme Mediterranean Action Plan (UN Environment/MAP) is a Regional Seas Programme under UNEPs umbrella that brings together the 21 Mediterranean neighbouring countries. MAP provides support to those countries in the implementation of the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean, the so-called Barcelona Convention.

The Regional Activity Centre for Sustainable Consumption and Production (SCP/RAC) is one of the centres belonging to UN/MAP. It is appointed with the mandate from the Contracting Parties of the Convention to promote Sustainable Consumption and Production in the Mediterranean region. In order to accomplish that mission the center provides knowledge, training, advice and networking opportunities to businesses, entrepreneurs, financial agents, civil society organisations and governments that work to provide Mediterranean's society with innovative services and products that are good for the people and for the planet.

The center provides technical assistance to the Contracting Parties to the Barcelona Convention to adopt SCP as integrated approach to decouple development from pollution and environmental and implements pilot projects in four countries: Algeria, Lebanon, Morocco and Tunisia. Likewise SCP/RAC supports green entrepreneurs and change makers driving eco and social innovations in the Mediterranean by providing training, technical and financial advice, jointly with a network of strategic local partners and local trainers. Moreover, SCP/RAC works closely with financial agents to establish mechanism that enable entrepreneurs and small companies that provide SCP solutions access to funding. SCP/RAC also hosts the Networking Facility that contributes to the visibility, effectiveness and scaling up of the SwitchMed activities.

UN Environment's Economy Division supports the development of SCP National Action Plans and provides advisory services and follows up closely the implementation of the demonstration pilot projects of four countries: Egypt, Israel, Jordan and Palestine.

UN Environment's Economy Division works closely with the National Focal Points (NFP), who are key actors in the SwitchMed and play a specific role in implementing the policy activities at national and disseminating the results in their respective countries. Focal points have been appointed by the national governments. In most countries a duo of Focal points – one from Ministry of Environment and one from Ministry of Industry.

SwitchMed Programme is funded by the European Union.

Jordan's facts and numbers

Population

- Capital and largest city: Amman.
- Life expectancy at birth: 76.1 years.
- Population growth: 3.2.
- Major Religions: 95% Islam (official), 4% Christianity, 1% Druze, Baha'i.
- Form Of Government: Unitary parliamentary constitutional monarchy.
- Population: 10,171,480.
- Area: 89,342 km².
- Official Language: Arabic.

Geography & Economy

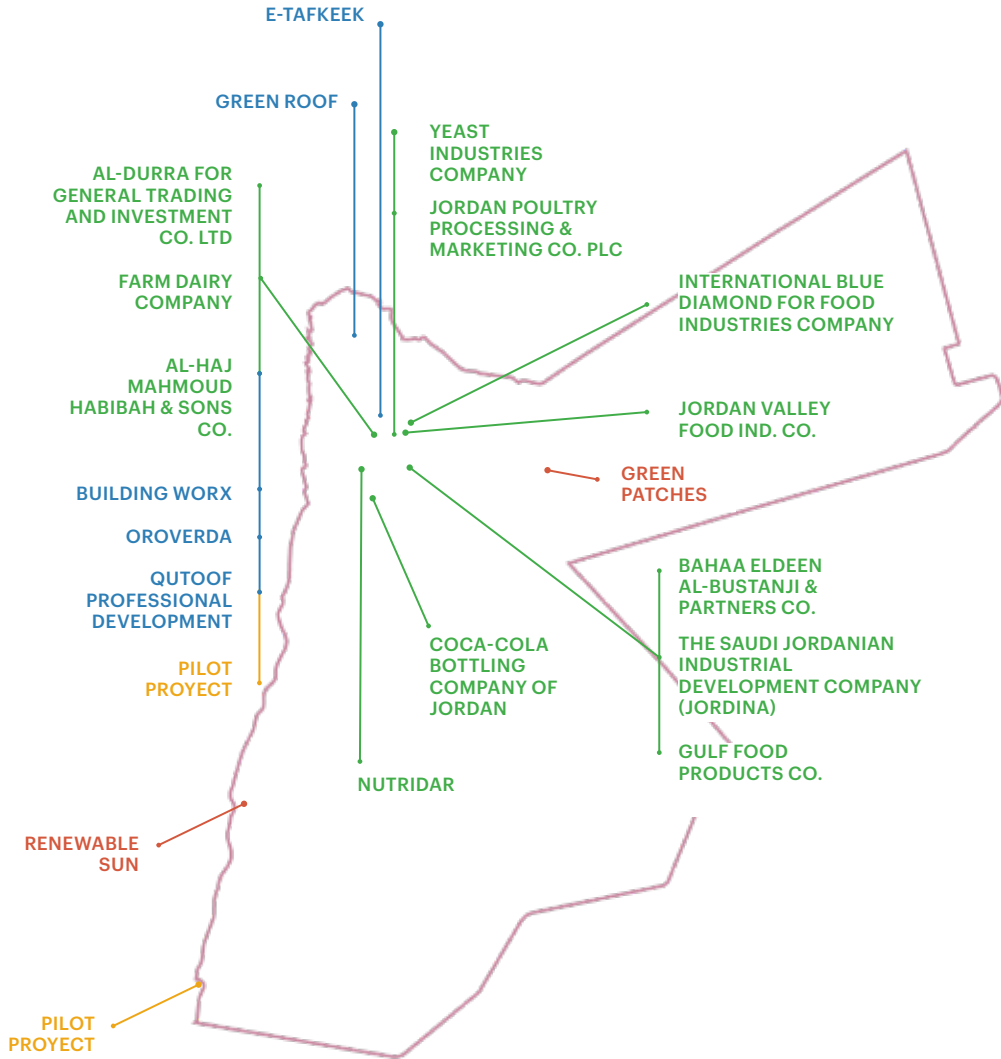
- Terrestrial and marine protected areas: 1.7654 % in 2016.
- Urban population growth: 3.19%.
- CO₂ emissions: 26450 (2014).
- Land boundaries: Iraq 179 km, Israel 307 km, Saudi Arabia 731 km, Syria 379 km, West Bank 148 km.
- Coastline: Dead Sea (Israel) and Gulf of Aqaba.
- Tourism growth: 10.5% (2017).

- Currency: Jordanian dinar (JOD).
- GDP: \$38.7 billion.
- Refugees: 2 million Palestinians and 1.4 million Syrian refugees residing in the country.

Sources: Economy and Demography in Jordan, Wikipedia, United Nations, The World Bank, Ministerio de Asuntos Exteriores y Cooperación & Atlasinfo.fr

SwitchMed beneficiaries in Jordan

- 2 Pilot projects from policy-makers
- 12 Industries from the food sector joined MED TEST II
- 5 Incubated green entrepreneurs
- 2 Civil Society Organisations



The lines and arrows drawn might not point to the exact locations, at it is only an estimation.

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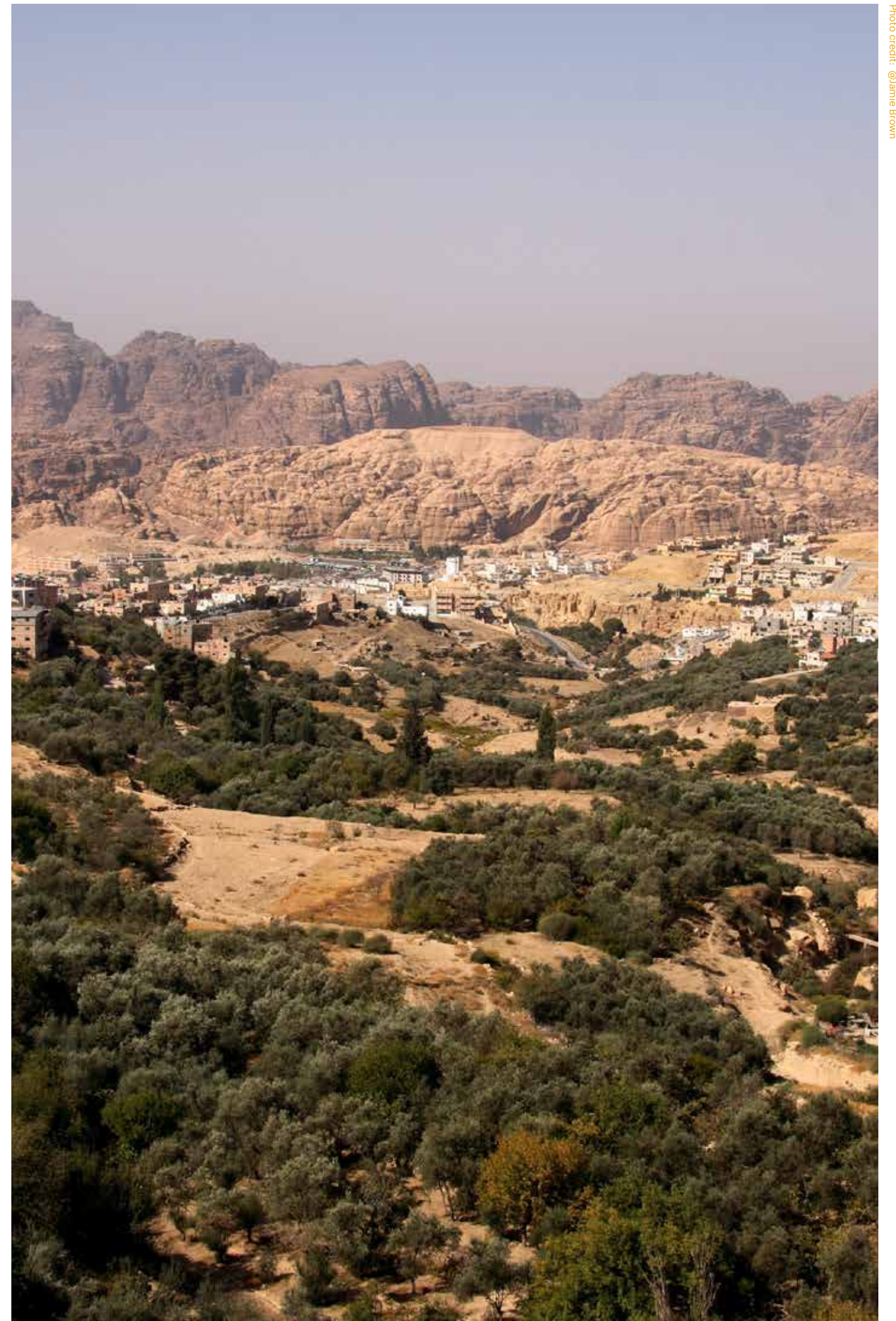
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Engagement with policy makers to establish a regulatory and policy framework to boost the market for sustainable products and services.



Implementing circular economy measures in the Mediterranean

The Mediterranean policy-makers developed within the SwitchMed programme a Regional Sustainable Consumption and Production Action Plan, including a Roadmap towards circular economy for its implementation in the Mediterranean as well as eight Sustainable Consumption and Production National Action Plans (SCP-NAPs).

The SCP Regional Action Plan was adopted in February 2016 by the 22 Contracting Parties to the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (known as Barcelona Convention), during their 19th Ordinary Meeting of the Contracting Parties. The SCP Regional Action Plan is a substantive contribution to the implementation of the 2030 Agenda for Sustainable Development. It is a strategic document that gives clear guidelines on the actions that should be developed in the region to shift towards sustainable consumption and production patterns, long-term sustainability, circular economy and new paradigms in the use of resources. It is also responding constructively to the climate change challenges. The document is structured around 4 key areas which are essential for the socio-economic development and for the job market in the region but are at the same time highly contributing to the pollution loads and to the environmental degradation of the Mediterranean. Those 4 areas are: food, fisheries and agriculture sector, tourism, goods manufacturing and housing and construction sector.

At national level SwitchMed, under the coordination of UN Environment’s Economy Division, provided advisory services to the governments of the eight programme countries in the Mediterranean on mainstreaming SCP into national development planning. Eight multi-stakeholder nationally owned and nationally driven policy processes were undertaken to best respond to the national priorities on SCP. Given the difficulty to implement the full range of SCP policies and instruments at once, project countries select a limited number of priority areas to be addressed in their SCP National Action Plans, which contribute to poverty alleviation, environmental sustainability and the development of a green economy.

The SCP-NAP processes were tailored to the needs and specific country situations and allowed the synergies and integration with national development plans and national sustainable development strategies. During these national processes a total of over 40 national workshops, roundtables and nationally-tailored training sessions were organised to reinforce national capacity on SCP. The processes were inclusive and saw the participation of a large and diverse group of national stakeholders, representing different relevant government institutions, private sector, civil society, academia and media representatives. In total, 1,500 national stakeholders actively participated. As a result, eight SCP National Action Plans were developed, which are a first step in a country’s response to the 2015 adopted Sustainable Development Goals (SDGs) and in particular Goal 12: Sustainable Consumption and Production.

Moreover, there are national demonstration pilot projects implemented on the ground to promote implementation of policies and actions, which effectively change patterns of consumption and production and implement circular economy measures in the priority sectors previously selected by the target countries. In total, 20 pilot projects were implemented by the end of 2018: 2 in Algeria, 2 in Egypt, 3 in Israel, 2 in Jordan, 1 in Lebanon, 3 in Morocco, 2 in Palestine and 4 in Tunisia.

Meet our focal points in Jordan

The National Focal Points (NFP) are key actors in SwitchMed and play a specific role in implementing policy activities and disseminating results at national level in their respective countries. A national coordination mechanism has been established in each country, coordinated and guided by the focal points appointed by their respective national governments. In most of the participating countries, two focal points—one from the Ministry of the Environment and one from the Ministry of Industry—work in tandem to lead the implementation of SwitchMed at national level.



Ministry of Environment (MoE)

It was established in 2003 and is the official body responsible for environmental protection in Jordan. In order to achieve its conservation objectives, the ministry develops legal, strategic and policy frameworks in coordination with relevant authorities. It focuses on 3 main subjects:

- Development of a general policy for the protection of the environment and prepare plans, programs and projects necessary for achieving sustainable development.
- Preparation of standards and standards for environmental elements and components.
- Monitoring and measuring elements of the environment and its components and follow-up through the scientific centers adopted by the Ministry in accordance with the approved standards.



Hashemite Kingdom of Jordan Ministry of Industry, Trade and Supply

It is responsible of regulating the industry by sector, preparing programmes and studies to work on the development and increase its competitiveness. The Ministry also takes on the task of regulating the international and external trade, monitoring it and preparing the studies and the agreements needed to protect the interests of the country and its citizens. The main objectives of the Ministry are:

- Developing the Jordanian economy to be prosperous and open to regional and global markets.
- Enabling the national economy to absorb the growing annual flow of the Jordanian labor.
- Strengthening the government administration to be financially stable, transparent and accountable to the central and local levels.
- Contributing to promote a stimulating environment for economic and investment activity.
- Maximizing the commercial and industrial performance.
- Organizing the internal and external trade and control.
- Developing a system to protect the rights of consumers and businesses sector.
- Encourage research, development and innovation.

Agriculture, transport and waste management are the key priority areas for promoting sustainable consumption and production in Jordan

Priority areas of promoting SCP

In line with the regional Sustainable Consumption and Production (SCP) Action Plan for the Mediterranean, in cooperation with the SwitchMed Programme and financed by the European Union, the National Strategy and Action Plan for Mainstreaming Sustainable Consumption and Production into Agriculture/Food Production, Transport, and Waste Management Sectors in the Hashemite Kingdom of Jordan (2016-2025) aims at supporting the implementation of agreed on SCP strategic, operational objectives and actions at the national level.

Jordan’s National Action Plan (NAP) addresses key human activities, which have a particular impact on the Jordanian environment including marine and coastal areas and related transversal and crosscutting issues. It defines common objectives and identifies actions guiding the implementation of the SCP at the national level.

Objectives and Actions

The NAP is based on a shared national vision developed by directly involved stakeholders and partners, which translates into strategic objectives and identifies operational objectives and specific actions for each of the three consumption and production priority areas selected: Agriculture/Food Production, Transport, and Waste Management. In addition, cross-cutting actions relevant to all three consumption and production priority areas are identified.

Strategic objectives

- Establish a national platform for institutionalising the process of mainstreaming SCP into relevant sectors’ plans to ensure coherence, coordination and implementation of SCP activities at the national and regional levels, and thus translate the global commitments on SCP to the country and the Mediterranean region;
- Develop and implement agreed on national SCP Operational Objectives in the country supporting the national, and thus, the regional implementation in order to promote and strengthen a circular and green economy and support the regional conventions and their protocols and other national and regional policy frameworks for sustainable development;
- Engage key national stakeholders in developing, practicing, and evaluating Sustainable Consumption and Production models and circular economy measures leading to high resource efficiency and preservation, reduced pollution, and decoupling the economic development process from environmental degradation and promoting sustainable lifestyles.

Operational objectives and actions

The operational objectives and suggested actions to assist their implementation were fully developed by national stakeholders through extensive stakeholders’ participation and engagement processes. In the Agriculture/Food Production, Transport, and Waste Management Sectors, the operational objective and actions are as follows:

Agriculture and Food Industry

Operational Objective 1: Develop the Policy and Legal Framework to Promote Sustainable Agriculture and Food Production and Consumption in the Country, with Special Focus on Organic Agriculture and Arid Tolerant Agriculture, Engaging Local Communities and Small-Medium

Scale Producers, Distributors and Retailers of Sustainable Agriculture and Food Products.

Suggested actions are:

- Develop the policy and regulatory framework and instruments as well as a clear and efficient institutional set to support sustainability of the agricultural sector’s natural resources;
- Adopt agricultural investment policies to improve standards of living and increase agricultural productivity;
- Develop and mainstream SCP provisions in public land-use policy, which defines optimal land use for the highest yield and priority use of agricultural lands;
- Promote “Green Financing” policies for the sustainable agriculture and food consumption and production areas by facilitating access to loans and grants for farmers and food producers;
- Accelerate the implementation of the legal and regulatory framework to support sustainable agriculture and food production;
- Establish quality control, traceability, standards harmonization and certification schemes;
- Promote Sustainable Public Procurement (SPP) schemes for agricultural and food products.

Operational Objective 2: Establish Innovation and Knowledge Platforms and Networks and Promote Best Environmental Practices and Technologies in all of Agriculture/Food Production Life Cycle from Land-use Planning and Sustainable Land Management (SLM), Growing, Harvesting and Food processing allowing Efficient Management of Resources and Minimizing Environmental Impacts.

Suggested actions are:

- Adopt and implement provisions of national frameworks set for land-use, Sustainable Land Management (SLM), Integrated Pest Management (IPM);
- Adopt Good Agricultural Practices (GAP) schemes for optimizing the use of different resources needed (water, land, energy, fertilizers, pesticides and Plant Protection Products);
- Adopt new and innovative technologies based on the Life Cycle Approach, including control of flows of materials. Extended producer responsibility and eco-design in the food processing and packaging;
- Minimize resource and food waste in all the life cycle of the food.

Operational Objective 3: Sensitize and Educate Food Producers, Retailers and Consumers, and Support the Development of Appropriate Market Tools and Information, to Promote Sustainability throughout the Value Chains of Agriculture and Food Production Management, as well as Food Processing and Food Distribution.

Suggested actions are:

- Support the development of national value chains integrating SCP principles in the agriculture and food production priority areas, with high market potential;
- Promote the labelling (branding) of the sustainable organic farm products and locally produced food;

- Improve the knowledge base and build a shared national and regional (Mediterranean)-linked Knowledge System for concerned research organisations, producers, certification bodies and governments and increase visibility and impact;
- Establish networks for Jordan’s organic agriculture farms and/or link with already established sustainable industries networking platforms/facilities;
- Prepare and implement information and educational programs; Foster product information schemes related to voluntary standards (consumer policies) and a consumer awareness campaign.

Transport Sector

Operational Objective 1: Develop the policy, legal and governance framework to Promote sustainable production and consumption in transport; Encourage the implementation of Zero Emission and low carbon transport policies; and Ensure that citizens are at the core of the transport policy.

Suggested actions are:

- Take necessary actions to achieve a conducive policy and regulatory framework;
- Create and support a more enabling environment to establish and maintain sustainability aiming at increasing the ratio of passengers travelling by public transportation and zero emission electric-operated vehicles and/or hybrid and plug-in cars to the total population;
- Create necessary instruments (economic, communication, fiscal and voluntary instruments) to support zero-emissions and a sustainable transport system at the national policy level;
- Ensure a clear and efficient institutional set-up capable of mainstreaming the provisions of sustainable consumption and production (SCP) in the transport sector;
- Ensure continuous review and update of policies, institutional set up and the organisation of the sector;
- Integrate and coordinate national plans related to urban planning, land-use planning and public transport infrastructure with transport plans/metropolitan mobility policies;
- Enhance and facilitate sustainable financial resources through legal provisions to ensure that attractive financial instruments are available to develop a sound transport system;
- Lay the groundwork to establish strong Public Private Partnership (PPPs) in Zero Emission sustainable transport projects;
- Develop the necessary services required to support the development of a sustainable transport system; and
- Promote Sustainable Public Procurement (SPP) schemes for transport.

Operational Objective 2: Develop Public Transport Systems with Sufficient Density; Pursue a Multimodal Approach to Facilitate Active Modes of Mobility and Establish Innovation and Knowledge Bases for Low-Carbon Zero Emission Transport Alternatives; Promote Best Environmental Practices and Technologies In Transport; Support Effective Infrastructure Allowing Efficient Management of Transport Resources, Benefiting from Gains in the Energy Efficiency Renewable Energy and Energy efficiency Law and its regulations and Environmental protection; and Minimize Environmental Impacts of the Transport in All its Life Cycle.

Suggested actions are:

- Adopt new and innovative management practices and technologies for Zero Emission and sustainable transport based on the Life Cycle Approach;
- Make the best use of the existing transport facilities while promoting SCP in the transport sector tackling the problems in the main network nodes (e.g. Amman, Mafrqa, Aqaba, Zarqa etc);
- Adopt global best industry practices and initiatives in sustainable and zero emission transport which define sustainable urban transport policies.

Operational Objective 3: Sensitize and Educate Transport Sector-Involved National Stakeholders Including Auto Retailers and Consumers (Drivers) and Passengers; Support the Development of Appropriate Market Tools and Information; and Provide Incentives to Promote Sustainability Throughout the Value Chains of Transport Management.

Suggested actions are:

- Support the development of regional value chains integrating SCP principles in the transport areas with high market potential;
- Promote energy labelling for vehicles and branding of a sustainable locally produced transport product and services.

Waste Management Sector

Operational Objective 1: Develop the policy, legal and governance framework for enabling a SCP-based national integrated waste management system; develop sustainable practices for waste collection and management; promoting sustainable provision of waste management services and encouraging the implementation of “waste as a resource” policies and practices.

Suggested actions include:

- Revise the legal and regulatory framework to mainstream sustainable Waste Management Services;
- Develop or revise the already existing policy and strategy framework to advance a clear and efficient institutional set-up to support an SCP-based national integrated waste management system;
- Integrate and coordinate national urban planning plans, land-use planning with waste management plans/policies and strategies;
- Strengthen organisational skills, institutional ability, and governance of all governmental entities involved in the waste management; Secure low interest financial resources and promote “Green Financing” for waste management;
- Promote Sustainable, green Public Procurement (SPP) schemes for the waste management sector.

Operational Objective 2: Develop an SCP-Based Integrated System for Waste Management; Establish Innovation and Knowledge for Waste Conversion Alternatives; Promote Best Environmental Practices and Technologies; Support development of Waste Management Infrastructure; Allowing Efficient Management of Waste as a Resource; Benefiting from Gains in Waste to Energy Schemes and Minimizing Environmental Impacts of the Waste across its Life Cycle.

Suggested actions:

- Encourage new initiatives in the sector of sustainable waste management;
- Adopt new and innovative management practices and technologies for sustainable waste management in all stages of the waste management life cycle.

Operational Objective 3: Sensitise and Educate Waste Management Sector-Involved National Stakeholders Including Services Providers and Support the Development of Appropriate Market Tools, Information, and Incentives to Promote Sustainability Throughout the Value Chains of Sustainable Waste Management Services Provision.

Suggested actions:

- Develop and implement information, education, and awareness programs and campaigns as a major tool to improve national awareness;
- Support the development of regional value chains integrating SCP principles in sustainable waste management service provision areas, and with high market potential;
- Encourage Public Private Partnerships (PPP) in sustainable waste management service provision projects;
- Further boost and augment customs and tax incentives;
- Improve the knowledge base and establish networks for sustainable waste management services providers;
- Build a shared national and Mediterranean-linked Knowledge System on the “sustainable waste management services provision”;
- Establish a National Multi Attributes Eco-labelling Scheme;
- Encourage the establishment of a national electronic tracking and monitoring network for Hazardous Waste through the development of PPP schemes;
- Strengthen exchange of information between private sector and create regional networks for trade of recycled and reusable waste.

Circular economy measures adopted in 2 pilot projects

By the end of 2018, 2 demonstration projects will be implemented on the ground. The national pilot project selection was based on the priorities expressed in their SCP National Action Plan that has been developed under the SwitchMed policy component.

Improving solid waste management

This pilot project aimed to institutionalise solid waste management concepts and practices in five and four-star hotels in the city of Aqaba. The goal was to reduce the amount of waste generated by the Aqaba hotel industry by adopting sustainable solid waste management practices and developing skills among key hotel staff. Activities included establishing a management unit, creating a steering committee, running a workshop to assess training needs, and drawing up a report on required skills and knowledge in solid waste management.

Training in solid waste management

The aim of this pilot project was to facilitate the maturation of the solid waste sector by developing skills in the workforce, from technicians to high-level decision-makers. The goal was to provide public and private sector players with the tools to work together towards solid waste management, concepts and opportunities. Pilot activities included two advanced 'Energy from waste' training programmes, with high attendance rates from the public and private sectors, a monitoring and evaluation plan with key indicators and follow-up mechanisms, and a training workshop for women on reusing recycled products. The main achievements were a bylaw on plastic bag use already put in place by the government, a draft law on waste management that is currently before the Parliament, and the initiative launched by the Minister for Environment during the World Science Forum 2017, 'One dead sea is enough', which aimed to save the seas and oceans from pollution and man-made waste.



Photo credit: @JoTB

Demonstrating the business case of a Resource Efficient and Cleaner Production (RECP) in Jordan's food industry.

Photo credit: @CCO



Working towards a resource efficient and greener production

At SwitchMed we support the adoption of sustainable production in the southern Mediterranean that enables industries to increase their ability to produce with lower cost, while reducing their environmental footprint. We do so through the MED TEST II project, a comprehensive approach that demonstrates the business case of a resource efficient production in 125 industries in 5 key production sectors of the southern Mediterranean, by using capacities of local service providers. This approach promotes the business case of a resource efficient production to industries in the southern Mediterranean, while advancing the supply of national capacities on sustainable production services.

Transforming industries to meet the needs of changing market conditions and a rising resource scarcity calls for a change in knowledge, attitudes and practices that can lead to a production that requires less resources and reduces pollution. The MED TEST II project, presided by the United Nations Industrial Development Organisation (UNIDO), applies the methodology named the Transfer of Environmentally Sound Technologies (TEST), a concept that addresses the challenges and barriers industries are facing in becoming more resource saving, energy efficient, and less-polluting.

The TEST concept approaches all management levels of a business, involving people with different professional backgrounds and operational responsibilities, in order to enhance and sustain the efficient use of production inputs and environmental performance. Connecting the resource efficient and cleaner production (RECP) assessments with present-day standards in environmental and energy management systems, helps building cross-cutting understanding and capacities within various management areas of a company and enables a holistic understanding and support for RECP within the business. This encourages a business culture where eco-innovative business solutions can thrive and a systematic assessment of the production can be set-up to monitor resource use and support a continuous improvement on the business performance. Furthermore, this approach encourages the production of goods that are responsibly managed throughout their life cycle, and increases the ability of companies to access international markets with good quality products and to reach compliance with environmental standards.

The MED TEST II project has displayed that the potential for improvements in resource savings within the production of the southern Mediterranean industry is significant. In the eight SwitchMed countries, the MED TEST II project identified 1,830 improvement measures within the 125 demonstration companies. The identified measures have stimulated a total investment of 87.6 million euros out of which 43% of the measures had a payback period below 6 months. A short payback period combined with an annual saving potential worth 41.7 million euros, has contributed to a high implementation rate of the identified measures (75 %), showing that investments in RECP is a feasible and a profitable business decision. Through the identified RECP measure in the MED TEST II project, industries in the Southern Mediterranean region now can annually save 3,512,660 m³ of water, 707 GWh of energy, reducing the solid waste generation with 19,602 tons and CO₂ emissions with 197,525 tons per year. In addition, 682 professionals from industries, service providers, government institutions and academia received training on the TEST methodology during the demonstration phase of MED TEST II in the SwitchMed target countries.

Resource efficiency is key in switching towards circular economy models. The MED TEST II project has revealed how additional economic and environmental benefits can be gained from the RECP approach using an integrated methodology of TEST that gives businesses an opportunity to invest in their future while reducing their environmental footprint.

Partners for green growth in industries

Strengthening national capacities and competencies related to RECP is an effective way to ensure a sustainable impact that can go beyond the duration of the project and is therefore also one of the main objectives of the MED TEST II project. For this reason, UNIDO is closely collaborating with government institutions and stakeholders from the industry and civil society to raise the significance of RECP to policy makers, knowledge networks, and to strengthen the national capacities in providing expertise on RECP.

Under the patronage of the Ministry of Industry, Trade and Supply (MoITS) and the Ministry of Environment (MoEnv), the MED TEST II project in Jordan has been led by the Royal Scientific Society (RSS), in partnership with Amman Chamber of Industry (ACI). In collaboration with the Jordan Chamber of Industry (JCI) and financial institutions, such as the Jordan Renewable Energy and Energy Efficiency Fund (JREEEF) and Jordan Environment Fund (JEF), the MED TEST II project also assembled influential organisations and institutions to mobilize funding and support for a sustained application and scaling-up of RECP in Jordan.

Trainings, combined with onsite technical assistance, were provided by local service providers with the support of international sector/thematic experts. The idea behind this approach was to demonstrate the business case of RECP in one of the most important industry sectors of Jordan, namely the food and beverage industries. This approach also helped service providers to gain experience with the TEST methodology and to establish reference cases that would help to market the TEST concept to interested industries through Jordan.



The Royal Scientific Society (RSS)

Established in 1970 by Royal Decree, the Royal Scientific Society (RSS) is a reference institution at the national and regional levels and a master of knowledge in the field of science and technology, which uses scientific research and the arts of engineering to promote economic growth and social progress in Jordan. The mission of RSS is to build and strengthen scientific and engineering research in the areas of great strategic value to Jordan's long-term competitiveness and development.

For this reason RSS has developed into the largest scientific institute for applied scientific research, scientific consultancy and technical services in Jordan. It is also a leading regional center in the fields of science and technology through more than 38 accredited laboratories internationally and locally.

The RSS offers advanced technical examinations that serve both the public and private sectors. The Association is proud to be a unique source of technical and scientific projects in many fields, supported by more than 500 employees in the fields of science, scientific research and high-level technical and administrative services. During the MED TEST II demonstration phase in Jordan, the RSS coordinated and implemented the TEST methodology in the Jordanian food industry sector, contributing to a sustainable industrial production in Jordan and increasing the long-term competitive position of businesses while reducing their environmental pollution by applying cost-effective measures and technologies.



Amman Chamber of Industry (ACI)

It was established in 1962 as a non-profit organisation which represents the industrial sector in Jordan. ACI's membership totals around 8000 varying in size from large, medium and small enterprises.

The (ACI) also forms and develops a framework to crystallize the industrial point of view of its members in economic issues in general and industrial issues, in particular, where the Chamber cooperates with the ministries and relevant government economic planning, especially with regard to industry, in coordination with the Jordan Chamber of Industry.

The Chamber aims within the geographical jurisdiction to look after the interests of all industrial enterprises and institutions associated with crafts and supported in implementing the TEST methodology throughout a selection of industries in the Jordanian food industry.

Resource efficiency the way forward for Jordan's industry

Jordan's location in the Middle East and North Africa (MENA) region makes it an attractive point of access to nearby markets, but the recent years of conflict in the neighbouring region has cutaway markets and trade routes for the exporting industry. Despite this, and the setbacks it has caused to Jordan's own development, the country has shown an ability to remain resilient, maintain internal cohesion, and reinvent itself in the face of adversity. The past decades have brought consistent growth rates and as conflicts in the neighbouring region are about to settle, prospects of a continued economic growth can advance. Still, high prices for energy and imported raw materials remain a challenge to many industrial SMEs in Jordan and weaken the competitiveness of Jordanian business on the global market. In addition, Jordan is one of the most arid regions of the world and also remains dependent on imported expensive carbon-intensive fossil fuels for energy. This situation requires that the distribution of the already scarce natural resources is done in the most efficient way. Consequently, enabling the industry to become more resource efficient would not only reduce production costs and therefore the economic situation of businesses, but it would also be a valuable contribution to a better resource consumption in Jordan.

But in order to accelerate a development that can both maintain a continued economic growth and ensure a sound resource availability, innovative and applicable tools are required that can spur industries to find resource efficient ways on how to deal with waste, energy and water. While the industry accounts for 30% of Jordan's GDP, this economic sector is vital as a producer of goods for the regional and local market, as an employer, but also, as a supplier to other economic sectors in Jordan. Therefore, the way industries deal with waste, energy and water needs to change fundamentally, especially if Jordanian businesses are going to be able to compete on the growingly important global export market. Turning challenges into opportunities is at core to the UNIDO TEST methodology as it supports industries with a toolset to address the rising energy and raw material costs by integrating saving measures into current business operations. The MED TEST II project, implemented in Jordan from 2015 to 2017, has enabled 12 Jordanian businesses from the food industry sector, to identify 214 RECP measures. Thanks to the identified saving opportunities, the 12 industries will reduce their annual water consumption with 63,844 m³, their energy consumption with 22.2 GWh per year. In addition, the 12 participating businesses have been able to reduce their annual raw material consumption with 404 t and their CO₂ emissions with 8,086 t per year. The identified saving measures will require investments worth 3.6 million euros with an average payback period of 1.7 years and accumulate annual savings worth 2.1 million euros for the 12 industries. These figures clearly illustrate that RECP concept is a profitable investment for industries in Jordan.

If other businesses decide to take on the approach of a resource efficient production in the industry of Jordan, the RECP concept could become a core element of assisting the economic development of the country, contribute to a more equal resource distribution, and maintain the role of the industry as a job creator. A more resource efficient production will also help businesses to generate responsibly managed products throughout their life cycle, while increasing productivity and maintaining access to international markets with good quality products that meet international standards. Therefore, if Jordan's industry is about to change and tap into the full extent of its potential, it is fundamental that other businesses and sectors pick up and follow the business case of RECP -as it was demonstrated in the MED TEST II project in Jordan. To accelerate this development, UNIDO, together with stakeholders form the civil society, government and the industry have developed a scaling-up roadmap on how to expand the RECP concept in Jordan. An action plan that will support the facilitation and reinforcement of national competencies around the topic of RECP and green growth has been developed with the ambition to mainstream the RECP approach throughout the industry in Jordan.

Click [here](#) to download the individual case studies from the MED TEST II project in Jordan:

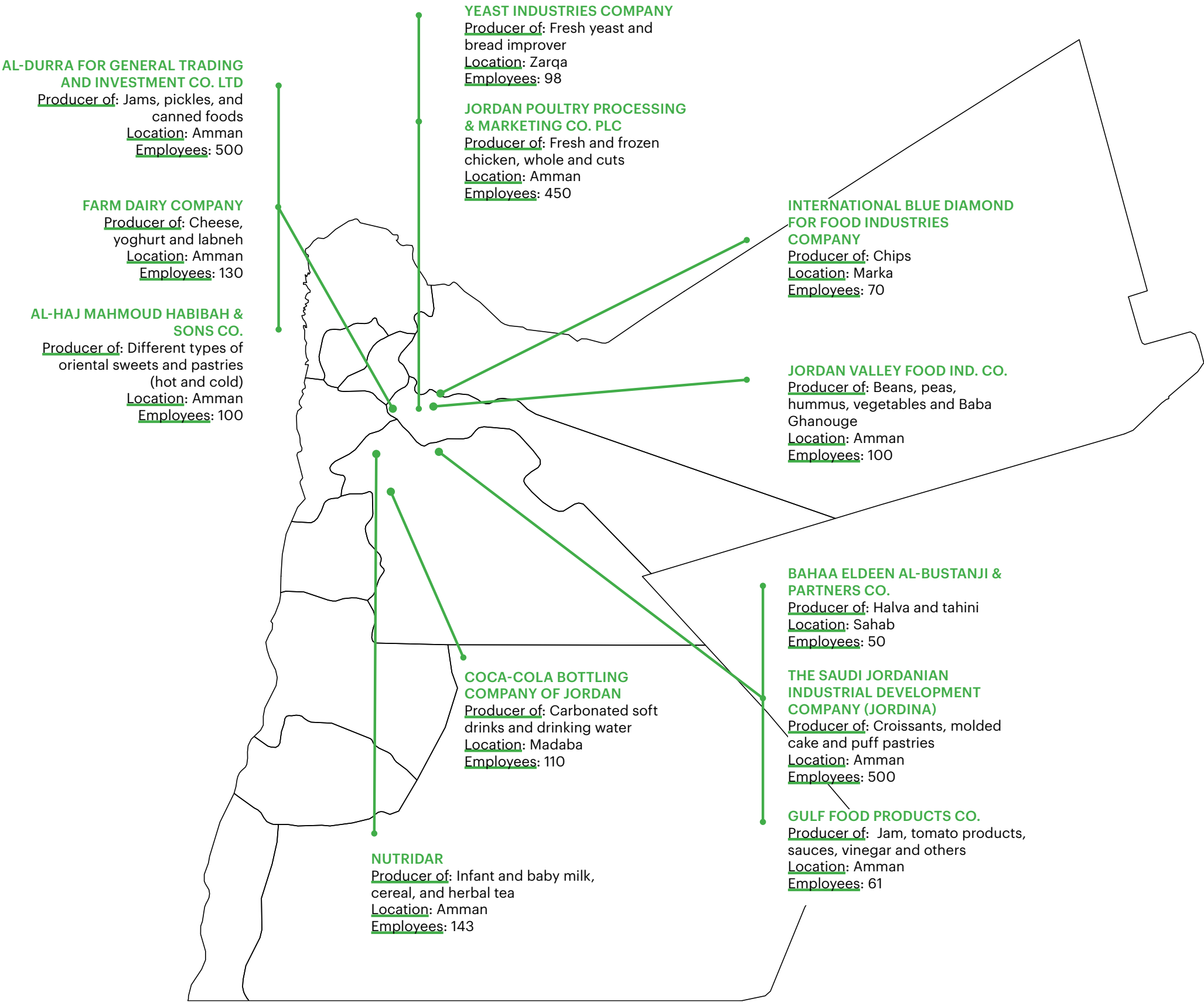


Photo credit: @CCO



Partners for a green growth

In Jordan 12 industries from the chemical, food, leather, mechanical, and textile sectors joined the MED TEST II project:



Case studies from Jordan

Habibah sweets, is a medium-sized company specialized in producing well known oriental sweets and pastries. With over 100 skilled workers in the daily production, the company is also an important employer for the region. Habibah participated in MED TEST II project mainly to reduce energy losses, but also to improve its awareness on issues related to resource consumption. The company formed a TEST team and together with local expertise Habibah soon realized that raw materials and product losses summed up to a significant cost during the daily operations. By introducing good housekeeping measures and improving the cutting methods for the pastry production, the waste and the inherent costs could be reduced by approximately 21,400 euros per year. Together with other identified energy saving measures, Habibah sweets have been able to identify annual savings of 471 MWh in energy and 29.2 t in raw materials, corresponding to an annual value of 67,460 euros.

“With this project we have established a new culture, a new way of thinking, and we have enhanced our information management system. This will helps us to become more sustainable in what we do.”
Eng. Waleed Habibah, Plant Manager, Al-Haj Mahmoud Habibah & Sons Co.



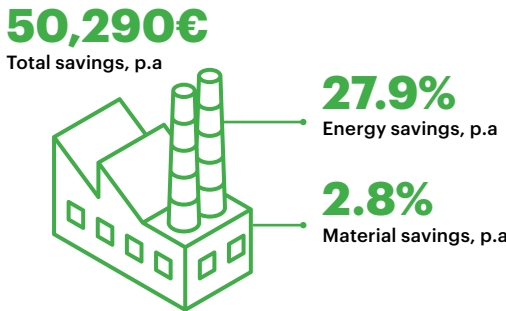
The Farm Dairy Company is a producer of different types of cheese, yoghurt and Labneh for the local and regional market. Motivated to find solutions that could address losses and inefficiencies in the production of Labneh, but also to reduce energy costs, the company decided to join the MED TEST II project. The manual handling of material within the production process led to considerable losses in raw and auxiliary materials. Thanks to the project, adaptations and the installation of new technologies in the Labneh and cheese production lines was suggested: This investment would reduce losses of energy, water, and raw materials in the Labneh production and help the company to save 196,220 euros in annual production costs. Due to the high investment needed for this measure, the MED TEST II project managed to facilitate access to finance and to support Farm Dairy in applying to the Jordan Renewable Energy and Energy Efficiency Fund (JREEEF). All in all, the Farm Dairy Company has managed to identify annual savings in energy, water and raw materials worth 227,180 euros. The company intends to maintain the MED TEST II team and to continue their work of optimizing the production to become more resource efficient.

“We were always accustomed to some bad practices that we thought could never be changed. Having someone coming in from the outside always changes things and once you have the courage to try it out and see what happens, you realize that there is a world of opportunities out there...”
Eng. Fawaz Shaka’a, Executive Manager, The Farm Dairy Company

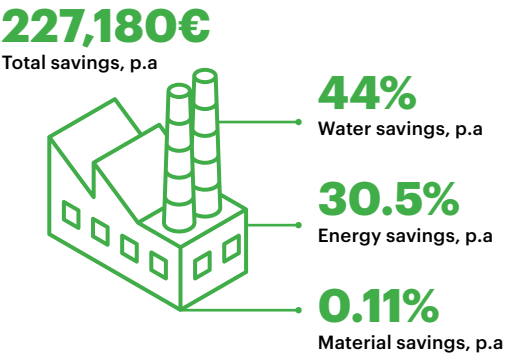


Total savings by the selected companies

Al-Haj Mahmoud Habibah & Sons Co.Habibah



Farm Dairy Company



Annual environmental impact savings identified in the 12 Jordan food industries

70
professionals

professionals from business consultancies, government institutions and industries received training on the tools of TEST during the demonstration phase of MED TEST II in Jordan.

8,086 = **1,731**
tonnes of annual CO₂ savings vehicles driven for one year

63,844 = **387**
m³ per year of annual water savings Jordan households annual water consumption

82.6 = **251**
tonnes per year of solid waste avoided years' worth of solid waste produced by a person in Jordan

22.1 = **11,755**
GWh per year of annual energy consumption savings Jordan households annual energy consumption

214 = **2.1 million**
RECP measures euros saved annually

Scaling up a resource efficient and cleaner production throughout the Jordan’s industry

The transition to circular economy is becoming a central issue in sustainable development strategies at international, regional and national level. To this end, the United Nations 2030 Agenda for Sustainable Development urges member countries to ensure sustainable consumption and production patterns for prompting resource and energy efficiency (SDG 12). By adhering to the goals of this agenda, Jordan is committed to include the dimension of sustainable development in all of its public policies. At the regional level, the SwitchMed program is therefore consequently designed and implemented to facilitate the transition to Sustainable Consumption and Production (SCP) patterns in the Southern Mediterranean region. At the national level, Jordan’s commitment to sustainable development is realized through the adoption of the Jordan 2025 National Vision and Strategy. It promotes adoption of measures that promote a sustainable and efficient use of natural resources with focus on water and energy; it encourages investments in renewable energy; and the use of solar energy to heat water and of devices that are compatible with green standards. This strategy also aims at raising the awareness about the long term financial benefits of energy efficiency and environmental protection, promoting partnership with the private sector, enforcement of legislation, financial incentives for the development and sustainability of SMEs, safe disposal and assortment, reuse and recycle of solid waste, improving the government’s electronic information systems and supporting innovation and excellence, among others.

In this sense, the achieved results from the MED TEST II project are conclusive as they confirm the relevance and effectiveness of the TEST methodology as an instrument for industries that wish to overcome challenges related to a sustainable consumption and production. The cost effective measures, often combined with brief payback periods, will allow businesses to integrate RECP solutions in their current production without threatening the day-to-day business operations. However, despite the many benefits a more resource efficient production would offer and a relatively favourable institutional framework for SCP, the situation on the ground is still subdued regarding the uptake and generalization of sustainable production modes in industries and often limited to the implementation of pilot projects, justifying the need for a scaling up roadmap.

Making the transition from demonstration activities to a sector wide mainstreamed adoption of RECP to the industry of Jordan, would be pivotal in helping achieving the SDGs in Jordan. In this regard, UNIDO together with the Government, the local partners from MED TEST II, and stakeholders from the industry and civil society, have developed a roadmap with propositions on how to guide a sector wide adoption of RECP in Jordan and what actions are required to do so. The goal of this action plan, which is based on the concept of leverage points and experience gained from the MED TEST II project in Jordan, is to eventually create a system change around the topic of RECP for industries in Jordan that will encourage an adoption and change towards RECP.

The table below lists the goals of the roadmap that were identified in the development of the roadmap for RECP in Jordan and the desired outcomes this would yield into. A detailed activity plan with responsibilities is outlined in the final scaling-up roadmap.

Download the scaling up roadmap for RECP in Jordan [here](#), or download it over the QR code:



To transfer RECP knowledge, know-how and information

- Effective RECP supportive policy framework.
- Industries aware of the benefits of systematically applying RECP assessment and at conceptual design of new investments.
- Well-developed RECP supply and demand in industry.
- Qualified RECP service providers.

Enhance the implementation of RECP in industries

- Effective finance of government, commercial banks and donors for RECP investments.
- Effective conservation of natural resources, water and energy.
- New regional and international markets for the green (eco-labelled) industries.
- More green industries, green jobs and services that enrich the green economy of the country.
- Improved legal framework to incentivise the green actions and investments.

To set up RECP assessment as a common practice in Jordan

- Well-developed and applicable RECP communication model between the industrial sector and relevant public and private stakeholders.
- RECP know-how and best available techniques available to the industrial sector.
- Database of national RECP benchmarking for the industrial sector.
- Industries aware of the non-product output (NPO) costs in their different processes.
- Scale-up the implementation of RECP projects (such as MED TEST II) to demonstrate the business case in more companies and sectors.
- Effective public-private partnership in RECP.

Building technical capacity and supporting green businesses in order to build a green entrepreneurship ecosystem in the Mediterranean.

Photo credit: @Building WORX



Capacity building for green and circular economy business models

At SwitchMed we are building a green entrepreneurship ecosystem in the Mediterranean by supporting green entrepreneurs from southern Mediterranean countries. 10 local partners were selected to follow-up closely the programme on the ground. In parallel, an innovative training methodology was developed to support the creation of green business and adapted to the context of the Southern Mediterranean. The methodology – comprised of a handbook and workbook on green business model development and green business plan development & incubation– guides green entrepreneurs through the entire process of growing their green business idea into a full-fledged enterprise. The methodology also provides tools and test the green entrepreneur's business models, by explaining step by step how to validate the business model's hypothesis with targeted customers and stakeholders.

Many of these individuals have a sound business idea but may lack the knowledge needed to transform their idea into a viable business. For this reason, the Green Entrepreneurship programme also includes a comprehensive training and incubation programme for individuals on how to launch a green business, led by the Regional Activity Centre for Sustainable Consumption and Production (SCP/RAC). The training programme – a five-day module delivered over three months in each of the SwitchMed beneficiary countries – requires green entrepreneurs to reflect on and articulate how their business idea will bring value to the economy, the environment and the community. Through the practical exercises, entrepreneurs must clearly identify the underlying problems and needs they are addressing, map their stakeholders, interview potential customers, document their mission and their environmental and social value proposition, evaluate the resources and energy needed to create their product or service and think about how they will generate revenue streams, amongst other activities. A key component of the training programme is the module dedicated to eco-design, which requires entrepreneurs to take an in-depth look at the entire life cycle of their products and services to evaluate and improve their environmental performance and to challenge them to incorporate innovative solutions in their business models. Circular economy principles form the

cornerstone of this module, which gets entrepreneurs thinking about the many dimensions of environmental sustainability that can be incorporated in their product or services. Materials, for example, can be chosen to maximise recycled content, renewability and recyclability to preserve natural resources and give value to other waste streams in the community. The incubation programme includes 55 hours individual follow-up advisory service by a local mentor, a tailor-made external technical assistance and support to develop a crowdfunding campaign, if applied, as well as support to access to finance throughout a period of 8 months.

In total, 123 local trainers were trained on-site, and finally, 84 were selected for the implementation of the training programme. Out of the 6,000 applicants who submitted an application to join the training programme, +2,300 green entrepreneurs were selected and trained. In the aftermath of the trainings, 166 entrepreneurs were selected and received a 10 hours individual coaching to improve their green business models. Out of the 157 entrepreneurs who submitted an application for the incubation phase, 49 were selected by an International High Level Jury that operated pro bono and included a group of independent experts from business, technical, institutional and academic sectors.

A national synergy workshop in each SwitchMed country was held to identify challenges and opportunities to promote green entrepreneurship and social eco-innovation initiatives, to identify specific measures and tools to strengthen the regulatory framework as well as to stimulate the market for sustainable products and services. In the end, a white paper was published, to highlight the strengths and weaknesses of the country green entrepreneurship ecosystem, in order to reveal the areas and axes where the needs for action are greatest and a whole collection of interviews.

Meet our local partners

Our local partner, as selected by SCP/RAC, is an organisation with extensive knowledge of the current situation in Algeria concerning civil society organisations, social movements and empowered communities aligned with sustainable consumption and production and ecological and social innovation as well as experience of organising/managing workshops. The main task is to assist SCP/RAC in identifying and selecting local trainers and potential grassroots initiatives to join our training programme.



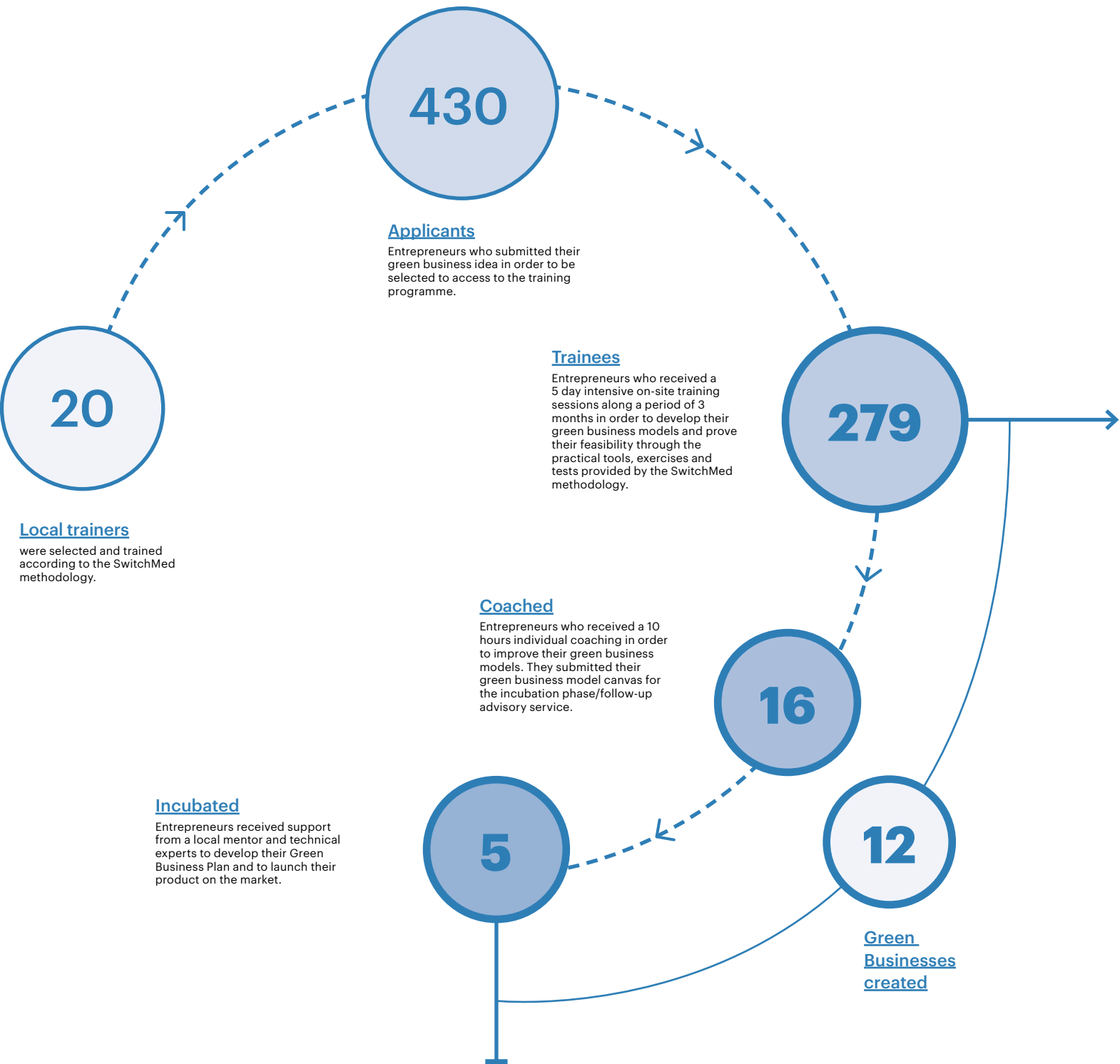
Business development center (BDC)

Established in 2004, it is a non-profit organisation committed to fostering economic development and public reform in Jordan and the Middle East. BDC has been on the forefront of various successful projects and works with business service providers, government entities, universities and international partners. Among its main goals are the promotion of entrepreneurship and innovation, the creation of employment opportunities and the effective development of solutions to enhance the competitiveness of Jordanian SMEs, women, youth and local entrepreneurs.

Our local trainers, carefully selected by SCP/RAC as well, have extensive experience in initiating, implementing and evaluating environmentally and socially innovative projects and also have a deep understanding and knowledge of training methodologies based on empowerment, collective learning and a participative approach. At SwitchMed, they are responsible for actively participating in the regional co-creation workshop, together with other local trainers from the participating countries. Local trainers also support their local partner organisation and SCP/RAC in identifying grassroots initiatives and guaranteeing the participation of at least 20 social eco-innovative actors/initiatives in the national workshop. This task also includes the provision of support in disseminating the workshop call through the available channels in order to attract potential actors and initiatives for the national workshop. The trainers are also in charge of facilitating a four-day national workshop with the support and guidance of SwitchMed's Civil Society Empowerment team.

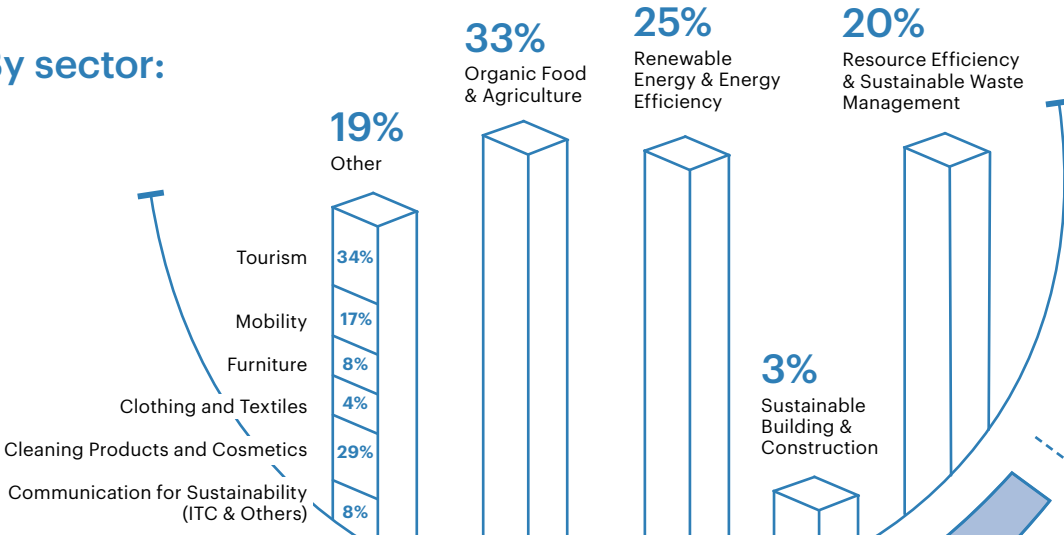
The local trainers participate in the multi-stakeholder process to select the best two initiatives arising in the workshop to receive further technical support. They also provide 50 hours of individual coaching support over 6-12 months, aimed at the development of a support plan to identify technical needs for the proper development and implementation of the project.

How is the green entrepreneurship programme contributing to the environmental, social and economic impact?

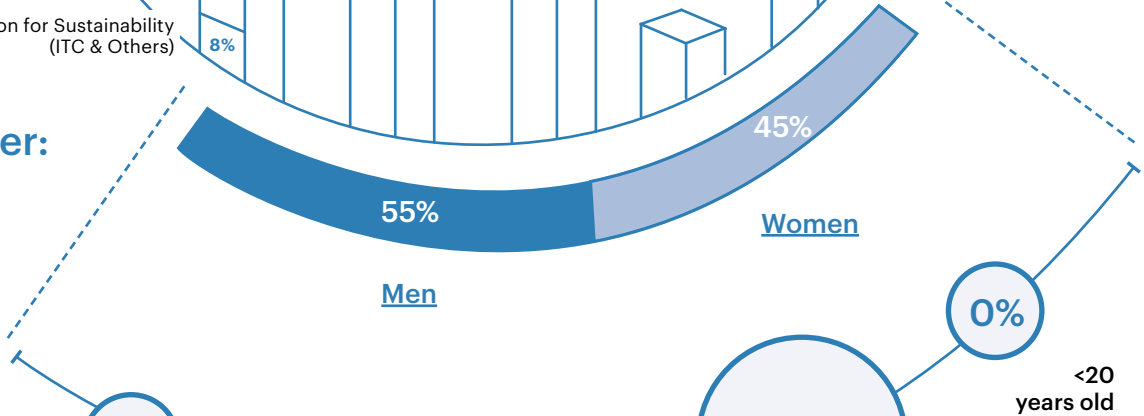


Analysing our Jordan 279 trainees

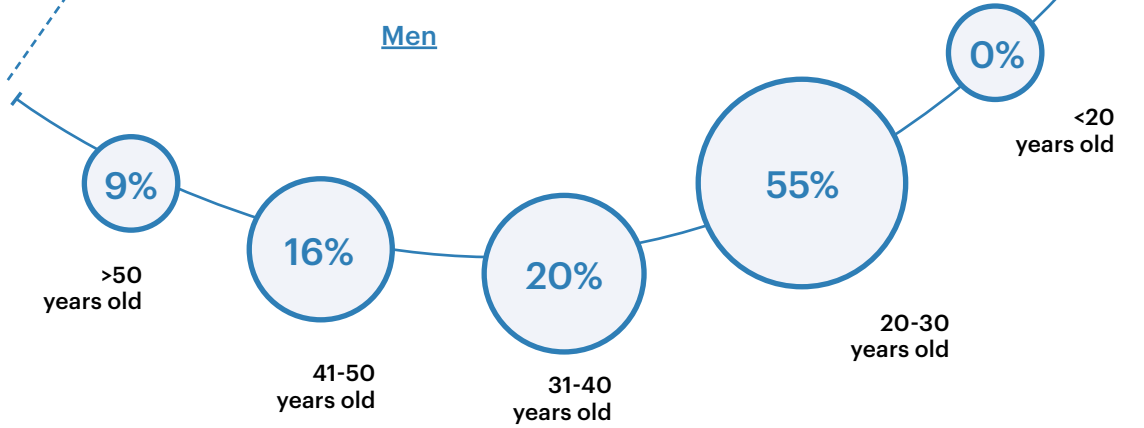
By sector:



By gender:



By age:



Meet our Jordan incubated green entrepreneurs

Building WORX

Green buildings represent a vital tool in the fight against climate change

One bright young architect from Jordan, Anas Saleh, is looking to become a market leader in green buildings in Jordan and the Middle East by providing high-quality services at reasonable prices and building long-term partnerships with key stakeholders. He is certainly working hard in order to make his dream come true. His company, Building Worx, founded in 2011, specialises in developing environmentally friendly buildings by following ecological procedures.

Tell us about yourself and how the idea for your business was born

Working as an architect, I've always been aware of the large amount of CO₂ emitted every year as a result of building activities all around the world. Construction processes involve the use of huge quantities of energy, water and raw materials and tend to generate a lot of waste. Construction is also responsible for the development of large areas of land, whether it is green fields or farmland. This was something that really concerned me but I knew that I could do better, so I quit my job and decided to establish Building Worx, with the mission of providing better and more sustainable construction services. I believe that we can offer unique value to construction customers by delivering green building projects at a reasonable cost while providing high-quality housing.

My dream is to build a better future for my country and make green buildings the first choice for Jordanians. With this project, I want to contribute to increasing the amount of green areas in Jordan by following sustainable practices throughout the construction phase while raising awareness about this issue.

To date, we've already been involved in a number of green projects, such as that in Na'our, a beautiful site in the Palestine mountains. It is the first environmentally friendly villa to have been built in Jordan. The villa is frequently visited and inspected by The Royal Scientific Society to assure that it meets the green building standards and that the company is recycling the recyclable materials in the building and reusing them when possible. There is also the Husam Villa in the Jerash Governorate, which features thermal insulation systems for the building floors, walls and ceilings to ensure that the energy used for heating and cooling in the villa is conserved. We also installed double-glazed windows and doors to maintain the heat inside the building. In addition, the rainwater saved serves for irrigation purposes which can be controlled remotely, as can the gas-powered underfloor heating system.

What is the environmental and social impact of your project?

In terms of energy, the positive environmental impacts delivered by Building Worx are numerous; from reducing the greenhouse gas emissions generated by energy use in the house to reducing waste during construction because we recycle it to use it in the same building or in others. We also offer alternative energy solutions, such as solar panels, wastewater reuse for irrigation and farming, and monitoring systems for building security. Thanks to these measures, our green buildings can generate energy savings of up to 30% on either diesel or electricity, with water use reduced by up to 40%, and a 70% reduction in building materials as well.

We generate a significant amount of construction waste at each site but we take advantage of any potential alternative energy source around the construction project to make use of it. Recycling and reusing the waste saves around 20% of construction costs, instead of buying new materials. We also use wastewater recycling solutions. According to the Jordanian Ministry of Energy and Electricity Regulatory Commission statistics, the construction sector is responsible for more than 37% of the country's total energy consumption. Building Worx buildings provide the opportunity to reduce CO₂ emissions and energy by implementing systems for water recycling and the reuse of rainwater. This is an

excellent environmental measure given the fact that Jordan is a country where water resources are scarce. We also offer additional services, such as retrofitting, insulation and continuous maintenance, providing advice to transform buildings from conventional to sustainable. And we don't only work with new buildings, we also renovate old buildings and make them green.

Regarding our social impact, our green buildings provide a safe working environment for our employees and increase awareness about sustainable construction. Almost every green building project we work on provides at least five new jobs to local people in the area where the building is being constructed. This means we increase the skills base of those employees in terms of green building construction methods. Green building benefits also translate to the end users, helping them to reduce domestic maintenance costs, and energy and water consumption bills.

How have you benefited from the SwitchMed programme?

I was looking for ways to improve my entrepreneurial skills and came across the SwitchMed programme. I didn't know much about being 'green' but with the help of SwitchMed I was able to turn my idea into a profitable business. SwitchMed has made a clear and relevant contribution to our company through training workshops, synergy workshops, and, in particular, the pitch elevator, which allowed us to network and opened up new opportunities in terms of business relations.

One of the most useful things I've learned is how to integrate environmentally friendly practices into my daily work on site, as well as in my personal life. Thanks to the programme I've learned how to reduce pollution and the negative impacts associated with construction works, how to reduce and reuse waste and, in summary, how to build energy and water efficient buildings.

SwitchMed helped me to familiarise myself with the green business model canvas concept and transform my idea into a real business. The incubation phase was undoubtedly the most helpful and useful step of the whole SwitchMed experience. The one-to-one support was focused on developing a clear business plan and roadmap, comprising a thorough overview of all the company components in order to develop my project quickly and effectively. We also designed a financial plan, which even helped me on a personal level, improving my personal financial lifestyle. The programme also helped me market my company, which resulted in winning the contract to build the first green villa in Jordan. The mentoring programme and the whole experience in general have been extremely relevant for our company, easy to follow and specifically tailored to our needs.



Photo credit: @Builing WORX

Green Roof

Energy efficiency and aesthetics combined in green spaces

If Lina Al-Kurdi had it her way, the skylines of the Middle East would be covered in green. Green Roof is the first company in Jordan to specialise in designing and installing green roofs, insulating buildings at the same time as improving energy efficiency and air quality.

Tell us about yourself and how the idea for your business was born

My name is Lina Murad Al-Kurdi, and I like to describe myself as a green entrepreneur and devoted mum, passionate about green roof technology and convinced of its energy efficiency. I've always thought that a greener future is a healthier future. Before starting my own business, I worked for various engineering companies and became aware of the need to find energy-saving solutions while improving the quality of the air, which is becoming increasingly polluted by our activities. I first heard about green rooftops when studying for my master's degree in renewable energy at the University of Jordan. Something clicked in my mind, and I thought this was an extraordinary and unique solution. So, when the Great Amman Municipality began to show interest in increasing green spaces in Jordan, I spotted the perfect opportunity to break into that field with Green Roof, because I was well aware of the positive effects of green roof technology on the environment. Green roofs not only increase energy efficiency, they also improve the visual aesthetics of urban spaces. I realised that they could restore the green areas being lost as a result of the growing numbers of construction projects in Jordan. The idea of Green Roofs is to focus on forgotten spaces like rooftops and parks. In densely populated cities located in the middle of the desert, green roofs are the only opportunity for people to have access to nature. Being part of the green economy and finding solutions to environmental challenges is very important to me. I hope to become an example for the younger generations and show them that anything is possible with knowledge, hard work and dedication.

What is the environmental and social impact of your project?

I strongly believe that green roofs all over the country could help to improve the quality of the air we breathe. Among many other benefits, the green roof system vegetation layer acts as a filter for the surrounding microclimate, reducing stormwater runoff, absorbing sound and helping mitigate the urban heat island effect. We have already installed 32 green roofs of 500 m² during our first year, and our goal is to install 131 over the coming three years, which will mean 64,900 m² of additional green space in Jordan. Green rooftops could improve energy efficiency across the region, from 12% in northern Jordan to 19% in the south of the country, and the potential energy and economic savings could reach 35%.

By increasing green spaces, which reduce the energy consumed in cooling and heating, we have reduced the emission of atmospheric CO₂ by 82,500 kg in our first year. We aim to prevent the emission of a further 324,500 kg of CO₂ over the coming three years. A combination of solar panels and green roofs can actually make each component work better, because solar panels provide shade for plants and grasses, reducing the need for watering, while the panels work best when they are cool. Our region is known for its arid climates, so our irrigation models are designed to consume less water than drip irrigation, through rainwater gathering and a sophisticated system involving the recycling of a building's greywater.

We make a deliberate effort to strike a balance between nature and aesthetics. We design rooftops that will not introduce new invasive plants to an area, but will create an ecosystem for specific wildlife, particularly species endangered by city growth. We endeavour to choose bushes that are effective at carbon sequestration, and vegetation that can absorb and store greenhouse gases other than carbon.

Green Roof also benefits the local community by renting land and purchasing land services. The value of this was 3,368 euros per 1,000 m² in the first year, and our goal is to allocate a further 10,000 m², with a value of 11,800 euros, in the near future. In addition, Green Roof requires engineers and experts in agricultural and other sectors: we have already created two jobs and hope to reach a total of twelve jobs in the coming three years, seven of which will go to women.

How have you benefited from the SwitchMed programme?

The SwitchMed green entrepreneurship programme helped me to develop my business model and design a strategic roadmap to follow over the coming years. The external support of two experts and local mentoring helped me to identify the needs and strengths of my project, including the design of a marketing campaign. The experience gained during the elevator pitch was also beneficial and contributed to improving my communication skills and my ability to explain my project to investors.

One of the most important benefits was winning the Switchers Fund OSCE GEMS Award. The 15,000-euro grant enabled me to increase my production to 7,000 m², including raw materials, seeds, water, land rent, land preparation and the necessary staff for manufacture and installation. Part of the grant was used for designing, preparing and launching a marketing campaign to promote Green Roof products.



Photo credit: @Bernat Mestres (White Horse)

Oro Verda

A wheatgrass liquid produced by soil-less planting to tackle nutritional problems

Oro Verda offers a healthy solution for malnutrition in Jordan by producing an organic liquid food supplement based on wheatgrass extract, and using a sustainable soil-less planting technology.

Tell us about yourself and how the idea for your business was born
My name is Amina Abu Hamdeh, and I am a nutritionist. In recent years, I've noticed a rising of health problems in my country. More than 60% of our population have vitamin and mineral deficiencies. Most of those problems are caused by a dietary change added to an increase in pollution. The consequences of this unhealthy diet induce to a lack of vitamin B12 and D, iron, calcium and magnesium. There are a lot of industrial supplements, but they are not the best way to solve this problem as they are difficult to swallow and have side effects like kidney failure and liver deposits. So, the idea of Oro Verda came up when I realised that wheatgrass is the best source of chlorophyll, an aggregator of all vitamin groups, numerous minerals and essential metals. It helps to provide more oxygen to blood aiding the immune system function. Besides that, the wheatgrass extract is a fantastic digestive thanks to its enzymes, amino acids and vitamin B content. It also acts as an excellent energy booster and has an anti-ageing effect on skin and is detoxifying and antioxidant. All those wheatgrass properties, plus the remarkable growth in natural and organic products market, showed me the opportunity to develop a special multivitamin recipe based mainly on fresh wheatgrass. This liquid is a natural solution to help to face 'unbalanced diets' or simply having a healthy lifestyle.

What is the environmental and social impact of your project?
Oro Verda is sustainable and environmentally friendly throughout its lifecycle. Jordan suffers from water poverty, soil degradation and pollution, and our company offers a solution to this problem. We use a hydroponic planting system to plant wheatgrass in a dome greenhouse. The seeds are locally produced, without pesticides and using natural light. We also use 80% less space for growing, and 90 times less water than soil-based farming. Besides, our system allows water reuse and water conservation so that we can save up to the 90% of the water used. To grow 1 ton of grass, we need 1m³ of water, and we require only 40m² of land to produce 1 ton of product. We even use roots as animal feed or composting, in a no waste business philosophy. Moreover, our packaging is reusable and made of biodegradable material. In our future plans, we want to use electric cars for transportation and install solar panels to power the machinery.

Regarding the social impact, we want to raise awareness about having a healthy lifestyle, and actually, our customers have noticed an improvement in their health after using our products. We obtained evidence of Oro Verda effects though asking our customers to provide us with their medical blood tests results before and after taking the supplement. They gave us as well their own observations on apparent changes in their health, body and well being. They not only heal from their vitamin deficiencies but also have noticed an improvement in weight, concentration, sleep patterns, diabetes, hair and skin health, more vitality, better digestion and blood pressure stabilisation. Even people who take chemotherapy for cancer diseases found the product supportive of their healing process.

I also intend to hire 3 employees at the starting phase and hope to employ 2 more at the second phase where production and distribution will increase.

How have you benefited from the SwitchMed programme?
Thanks to the SwitchMed incubation I received the support of a mentor who helped me to strengthen my business model and inside this, my green business plan and financial plan, as well as a strategic roadmap to be followed during the next years. I also received external assistance of two experts that along with the mentoring helped me to identify the needs of my project, including customer segmentation and new brand identity. A graphic designer helped me to create a whole visual and creative strategy, based on our organic products and healthy lifestyle philosophy. Now, Oro Verda has a new logo, brochures, stickers and in general new branding guidelines for future marketing actions. The

communication strategy was also improved by creating a new website and social media channels. Another remarkable achievement was the legal support that I received from one expert to licence our entity. He helped me to obtain a product FDA certification and prepare different contracts and partnership agreements. In addition, winning the pitch elevator competition organised by SwitchMed last August 2017 has also contributed to making me feel self-confident and improve my communication skills to explain Oro Verda in front of investors.

“We use 80% less space for growing, and 90 times less water than soil-based farming. Besides, our system allows water reuse and water conservation so that we can save up to the 90% of the water used. To grow 1 ton of grass, we need 1m³ of water, and we require only 40m² of land to produce 1 ton of product.”
Amina Abu Hamdeh founder of Oro Verda



Photo credit: @Bernat Mestres (White Horse)



Photo credit: @Bernat Mestres (White Horse)

Qutoof Professional Development

Taking care of business: Teaching Jordanian companies to be eco-friendlier

Qutoof is a non-profit development organisation that aims to become a leading centre for green vocational training in Jordan and the MENA region. Its goal is to empower people and communities to protect and conserve their environment by changing behaviours, from those resulting in negative environmental impacts towards green and sustainable re-use of resources. Buthaina Aburoza wants to go beyond just raising awareness and helping individuals and institutions acquire knowledge and skills. The company is looking to invest maximum effort in sustainability and the achievement of green growth indicators. It is eager to provide long-term learning and green-accredited education aimed at enabling new generations to deal with environmental challenges in the coming years. Qutoof offers international certificates in waste management and recycling, targeting the formal and informal workforce in those sectors, including the emerging junior workforce. It is also working to spread the recycling culture by supporting entrepreneurial recycling projects and developing solutions through public-private partnerships. Qutoof has benefited from the SwitchMed incubation programme in receiving practical guidance on how to attract funding and foster functional, eco-friendly businesses. “These mentoring experiences strengthened Qutoof with the technical assistance that we needed”, says Aburoza.



Photo credit: @Bernat Mestres (White Horse)

Tafkeek

Recycling hazardous materials in a mostly digital age

Tafkeek is a company specialising in electronic waste recycling. Its aims are in response to the urgent need to create jobs and treat electronic waste in an environmentally friendly way. Electronic products often contain bio-accumulative and toxic substances, including heavy metals such as lead, nickel, chromium and mercury, as well as persistent organic pollutants (POPs) such as polychlorinated biphenyls (PCBs) and brominated flame retardants (BFRs). They also include ferrous and non-ferrous metals, plastics, glass, wood and plywood, printed circuit boards, rubber and other non-biodegradable components. Sudki Hamdan's main objective is to establish an industrial profit-off facility to sell items resulting from the recycling process. Tafkeek, currently in the final stages of the legal registration process, already has a contract with the Al-Zarqa municipality. Hamdan's Tafkeek is part of the SwitchMed incubation programme. “Without SwitchMed's support and encouragement, our success wouldn't have been possible. Mentors have played a significant role in helping us create our business plan, not to mention the technical assistance provided to recognise the key stakeholders”, says Hadman.



Photo credit: @Alex Proimos

Photo credit: @Building WORX



"In order to make the vitamin supplement based on wheatgrass extract, we use 80% less space for growing, as to grow 1 ton of wheatgrass we require only 40m² of land and we use 90 times less water than soil-based farming. Our system allows water reuse up to the 90% too. Our packaging is reusable and made of biodegradable material."

Amina Abu Hamdeh, Oro Verda

"Almost every green construction project we work on we created 5 new jobs to local people in the area where the building was built. Moreover, we can guarantee now to our customers a 30% reduction of their energy bills."

Anas Saleh, Building WORX

"We have already installed 32 green roofs of 500 m² during our first year, and our goal is to install 131 over the coming three years, which will represent 64,900 m² of additional green space in Jordan."

Lina Al-Kurdi, Green Roof

The Switchers: Discover inspiring changemakers who are switching towards a cleaner Mediterranean

There are 340 Switchers showcased in the Switchers platform. They are all shining examples of how circular economy approaches can lead to business opportunities and also drive innovation that benefits people and the environment. In Jordan, there are 30 Switchers at the moment in the platform.

The Switchers is a community of inspiring green entrepreneurs and changemakers in the Mediterranean region hosted by SwitchMed and SCP/RAC. Switchers are individuals, enterprises or civil society organisations implementing innovative ecological and social solutions that contribute to a switch to sustainable and fair consumption and production. They are active in a variety of fields, including organic farming, sustainable tourism, waste management, organic textile, recycling of electronic waste, sustainable building, organic cosmetics production, among others. Most importantly, the Switchers is a community with a voice and a meeting place for people in the region who are passionate about shaping their environment towards a more sustainable future.

For the Switchers, circular economy solutions are at the heart of their business models and also inspire them to seek ways to innovate and achieve even higher levels of environmental sustainability in the design of products and services they provide. Together, these important economic actors are making significant progress towards the goal of the SwitchMed programme and one of the region's key sustainable development objectives: to accelerate the shift to more sustainable modes of consumption and production. In doing so, they are setting a positive example of how economic growth can also lead to protection of the Mediterranean and its precious, limited natural resources.

To read more on the stories of change makers at our new online Switchers platform at www.theswitchers.eu

Photo credit: @Alhidan Adventures Center



Meet our Switchers in Jordan

Solvillion

This initiative wants to offer a ‘million solutions’ to Jordan’s wastewater crisis

Solvillion has developed a wastewater treatment processor that absorbs sewage water from households to make it usable enough for agricultural practices. Aia Abul-Haj and Mot-az Al-Thaher have opted to reach its audience via environmental or water-preserving NGOs, which also help to raise awareness about wastewater and its risks.

Solvillion’s initiative focuses on offering solutions to individuals of different sections of Jordanian society. Some houses are not even connected to sewers, which represents a huge health hazard. Their goal is to tackle water scarcity in Jordan, a serious problem for the country, ranked as the third most arid nation in the world. To date, the company has received seed funding from Middle Eastern NGOs to develop its first product, which has been quickly sold. Since then, they have been trying to continue financing their business through external funding sources.

Washy Wash

This eco-friendly laundry revolution is a detox for Jordanian dry cleaning

Washy Wash is a start-up that aims to change laundry habits in Jordan by replacing toxic dry cleaning chemicals with sustainable higher quality alternatives. Kamel Almani believes that the industry must become eco-friendlier and wants to encourage Jordanians to rethink harmful washing habits.

Washy Wash is defying traditional dry cleaning by providing energy-efficient and toxin-free alternatives for laundry services. Its current product is EcoClean, which does not rely on dangerous solvents. The company has declared war on perc, which is a liquid solvent used for decades to remove clothing stains that scientific research has classified as a toxic airborne pollutant. Exposure to perc can cause dizziness, headaches and even cancer in dry cleaning workers and their customers, also contributing to air and water contamination. The company got off to a flying start, attracting more than 5,000 customers in the first eight months of operation and receiving around 1,000 orders per month. Their business model allows users to order sustainable laundry services through a mobile app.

Nadia Dajani

The slow jewellery brand creating job opportunities for women in Jordan

Nadia Dajani is an ethical jewellery brand based in Amman that employs Jordanian women from underprivileged parts of the country who often do not have the opportunity to work. Dajani is the founder and designer of the self-named jewellery brand that creates pieces made of silver, copper and gemstones.

Nadia Dajani trains women from scratch, tapping into their natural talent to empower them in the art of jewellery making. Their work is then displayed and sold locally and internationally. Dajani’s designs are handmade using exclusively natural materials and, in many cases, stones from the region where the women are working. Recycling materials and producing its own packaging also helps the designer stay sustainable. Dajani’s most important achievement is becoming the first company in Jordan to be allowed to do the work that it does – previously, only NGOs were allowed to provide work to women. The brand now offers women opportunities which, in turn, enables them to improve their homes and better provide for their children.

Amal Madanat

One woman’s battle against Jordan’s littering nightmare

Amal Madanat is on a mission to start a formal, non-profit organisation to develop her overriding passion: teaching Jordanian children about the vital importance of recycling and the value of items that they may consider ‘waste’.

Amal Madanat has spent the past eight years running a variety of school activities and encouraging children to rethink harmful social attitudes towards garbage and the vital importance of recycling. Amal’s goal is to fight against the alarming refuse problem being faced in Jordan, which is home to one of the most polluted spots in the world: more than 10 billion pieces of litter per square kilometre. Eight years into her activist career, Amal has increasingly branched out on an ever-more ambitious scale. In December 2015, she curated a permanent public waste exhibition at Dahiyat al-Hussein as part of the Green Generation Foundation framework. The Ministry of Education has apparently considered adopting the documentary With Myself I Started as a tool to raise awareness about waste management in Jordanian schools.

JREDS

Supporting sustainable fisheries in the Gulf of Aqaba

The Royal Marine Conservation Society of Jordan (JREDS), is a non-profit organisation founded in 1993 by a group of concerned Jordanian ecological divers. Mohammad Al-Tawaha, one of the people responsible for the project, says it involves local fishermen with the aim of improving their livelihood and implementing a sustainable fisheries project in Aqaba, the only city with coastal access in Jordan.

The JREDS project aims to promote the sustainable management of fisheries and the recovery of marine ecosystems for future generations through grassroots participation and awareness campaigns. They propose better management tools to improve the sustainable use of marine resources, to compile a comprehensive base of knowledge and information about the fisheries in Aqaba and to provide authorities with clear recommendations for managing the fisheries in the most sustainable way. The collected information identifies the best fishing seasons, the most adequate fishing gear to be used, the need to fish certain species and respect sizes, among other aspects. The project was carried out in the spirit of full collaboration and consultation, involving fishing associations, decision makers, management authorities and other stakeholders.

QASEDA

In Qatrana, natural resource management is a skill

QASEDA is a non-profit organisation that aims to support the Bedouin community by creating local employment initiatives for them and their fellow residents, as well as to start unconventional natural resource management projects. Hamzeh Al Alayani’s challenge in Qatrana, a city both well-located and completely isolated, is to introduce updates that have not always proved effective.

QASEDA aims to encourage projects that combine traditional elements of Bedouin culture with the modern economy, as well as promote the management of those projects within the community to benefit both the local workforce and the environment. Qatrana residents have university degrees but unemployment remains an issue, especially among the large youth population. Jordan’s unemployment rate in the second quarter of 2017 topped the 18% mark. One historical Bedouin tradition is rainwater harvesting, particularly in the dry Qatrana area, and QASEDA is reviving this practice,

training local women and children to adopt it. “We have water but lack the management or support to develop the local community to manage it”, says Al Alayani. Also, by promoting forms of renewable energy through rainwater harvesting and solar electricity, QASEDA is promoting local business creation among women and young people.

Millennium Energy Industries
Promoting solar energy across the Middle East

Millennium Energy Industries (MEI) is one of Jordan’s leading solar energy companies. Ennis Rimawi has steered the company towards adopting an innovation-driven approach, designing and building customised solar systems for its clients. The company started out providing small-scale solar water heating and photovoltaic (PV) solutions for businesses and resorts in Jordan, and quickly expanded to over seven countries after snagging its first major solar water heating project.

Millennium Energy Industries’ first large-scale solar heating project was for the Princess Noura University for Women in Saudi Arabia and helped put the company on the map. This project now provides hot water for over 40,000 female students each year. The solar water heaters will save 125 million kilogrammes of CO₂ emissions over 25 years. Building on this success, MEI also helped hospitals and universities, such as Palestine’s Bethlehem University and Jordan’s German University, switch to solar energy for water heating and cooling. As MEI continues to grow, the company makes every possible effort to create jobs for local renewable energy engineers and workers, with a strong commitment to promoting gender equality in the workplace. MEI also uses locally manufactured products and materials such as water storage tanks in the construction of its projects.

Hunaya

One Jordanian interior designer is turning pieces of second-hand furniture into aesthetic marvels

Hunaya upcycles discarded furniture to create art pieces. Nour Nsheiwat and her husband Nabil Haddad started upcycling pieces they had bought as a hobby, giving the resulting creations, such as an upcycled chest of drawers, to friends. They then started getting requests to customise items, eventually turning the project into a business idea to provide a source of income.

Hunaya turns pieces that have been thrown away as rubbish into valuable items, aiming to fight the increasing amount of solid waste being generated in the country, where there are a limited number of landfill sites and recycling plants. The lack of infrastructure is an indicator of insufficient awareness about waste and recycling in Jordanian society. Hunaya’s choice of materials and techniques to upcycle is far from arbitrary, borrowing styles and ideas from bygone eras. For example, their range of stools were inspired by those used by farmers for milking cows. Hunaya is still a small-scale operation, with a small shop and customisation by commission. The company is also working on establishing an online store and is involved in giving talks on recycling and upcycling at universities, using Nsheiwat’s story to inspire young minds.

Wadi Dana Eco-Camp
Mountain views and sustainable farming draw tourists to Southern Jordan

The Wadi Dana Eco-Camp offers tourists a gateway into Jordan’s beautiful agrarian past. The camp provides a range of mountain and valley hikes, village tours and traditional meals for its guests in an environmentally conscious setting. Khalid Khawaldeh sees ecotourism as an opportunity to replace lost employment opportunities.

The Wadi Dana Eco-Camp aims to preserve the community’s social, environmental and economic way of life. At present, the camp offers six chalets and thirteen tents as guest accommodation, along with providing a range of meal options, village tours and guided hikes. These walks are a particularly impressive draw for the camp, which is perched on a mountain overlooking the spectacular Wadi Dana Nature Reserve. The project helps to counteract the negative trend being experienced in Jordan, with many of the country’s green spaces

turning to arid desert, by attracting tourists to Southern regions. Guests enjoy a simple way of life during their stay, with limited access to electricity and its associated modern comforts. The camp benefits the community on several levels; not only does it employ camp assistants, drivers and hiking guides, but it also creates a market for local food producers. The Eco-Camp is trying to offer an alternative for the younger generation to prevent them from abandoning the area in search of economic opportunities.

Amina’s Natural Skincare
Saving their skins: Jordan’s rising star in organic skincare products

Amina’s Natural Skincare offers a product range of 28 different organic skin cleansers, hydrating oils and moisturising creams. Amina Mango heads up a thriving, environmentally sustainable business specialising in skincare and cosmetic goods. According to Amina, while Jordan has increasingly embraced the concept of organic farming, her business is the first Jordanian manufacturer to have been awarded the relevant certification.

Amina’s Natural Skincare products comply with eco-friendly standards, incorporating a waste management plan for efficient recycling and composting. The company’s certification rules also prohibit the use of harmful plastics in packaging, which would render an item unacceptable even if the product inside is entirely organic. The positive social contribution of the business is a key priority, promoting the empowerment of women. “I believe that women are the solution to a lot of problems in Jordan”, Amina says. Six of the company’s nine permanent employees are female, including two industrial engineers and one graphic designer. The company currently sells to Europe via the online marketplace and is involved in ongoing negotiations with distributors based in Finland and the United Kingdom.

Photo credit: @Mustakbal



(2)



Photo credit: @RSCN Wild Jordan

Photo credit: @Al Ayoun Society



(4)



Photo credit: @Alhidan Adventures Center

(1) **Mustakbal**, renewable energy (2) **RSCN Wild Jordan**, tourism (3) **Al Ayoun Society**, tourism (4) **Alhidan Adventures Center**, tourism

Photo credit: @Lina Energy



(5)

(6)



Photo credit: @Eco Hikers

Photo credit: @Bookagri



(8)



Photo credit: @Feynan Ecolodge

(5) **Lina Energy**, renewable energy & energy efficiency (6) **Eco Hikers**, tourism (7) **Bookagri**, tourism (8) **Feynan Ecolodge**, tourism

Photo credit: @ Wadi Dana Eco-Camp



The White Paper is a publication that highlights the strengths and weaknesses of the Jordanian green entrepreneurship ecosystem, in order to reveal the areas and axes where the needs for action are greatest. It summarizes the opinions of some forty stakeholders interviewed individually (public institutions, financial institutions, support structures, project sponsors) as well as the results of the synergies workshop held in April 2017 in Amman, which brought together some 100 key actors from nearly 60 different organisations.



**Empowerment
of civil society
organisations and
citizens to lead
innovative solutions
addressing
environmental and
social challenges.**

Photo credit: @Markus Spiske



Supporting eco and social grassroots innovations

At SwitchMed we support community-based social eco-innovation initiatives to maximise their influence and impact, thereby contributing to the emergence of more sustainable models of consumption and production. A training methodology is developed to support eco and social innovations and grassroots initiatives on sustainable consumption and production which included a Handbook that provides basic knowledge and understanding on the fields of SCP and eco and social innovations. Furthermore, this Handbook presents challenges and opportunities for civil society organisations and grassroots initiatives aiming to work within these fields. It also helps to inspire and build a practical way of looking at collective projects or initiatives.

An intensive 4-day national workshop is organised in each of the SwitchMed target countries in coordination with our local partners. The attendees are gathered in an inspiring framework in order to develop different spheres of their projects, get inspired by other initiatives and help one another during the particularly participatory sessions. Specifically, the training aims to provide practical expertise in what concerns community initiatives while giving them the opportunity to take important steps in the development of their projects. A key component of the training is the module dedicated to analyse in depth the issues to tackle to start an initiative. Through the practical exercises, the leaders of the initiatives must prototype their projects, develop a canvas model particularly addressing the social eco-innovation within grassroots initiatives and develop a SWOT analysis. On average, 20 community initiatives were shortlisted in each country, making a total of 180 initiatives across the programme as a whole that received the training.

Afterwards, all the trainees have the opportunity to apply for the supporting phase of the programme to receive further coaching and technical support for the development and implementation of their initiatives. Two civil society ecological innovation initiatives are selected in each country. The assessment of the applications is done by a jury composed by the local partners, the local trainers, SCP/RAC and the external experts involved in the development of the training methodology.

The initiatives selected in each country for the support phase benefit from 50 hours of training that includes the development of a “support plan” for their initiative and regular coaching sessions for six months to support the implementation of the initiative. Also external technical or expert support based on the needs identified in the “support plan” is provided and when possible, support for the development of a crowd-funding campaign as well.

In total, 260 change agents and civil society organisations were mapped and, 16 local trainers selected and 8 local partners were selected and trained on-site for the implementation of the training programme. Out of the 570 candidates who submitted an application to take part in the national workshops to train civil society initiatives, 160 people were selected and trained belonging to 80 different initiatives. In the end, 14 initiatives received further support, as explained earlier. Civil society organisations also participated in the Synergy Workshops organised together with the Green Entrepreneurship programme.

Meet our local partners

Our local partner, as selected by SCP/RAC, is an organisation with extensive knowledge of the current situation in Algeria concerning civil society organisations, social movements and empowered communities aligned with sustainable consumption and production and ecological and social innovation as well as experience of organising/managing workshops. The main task is to assist SCP/RAC in identifying and selecting local trainers and potential grassroots initiatives to join our training programme.



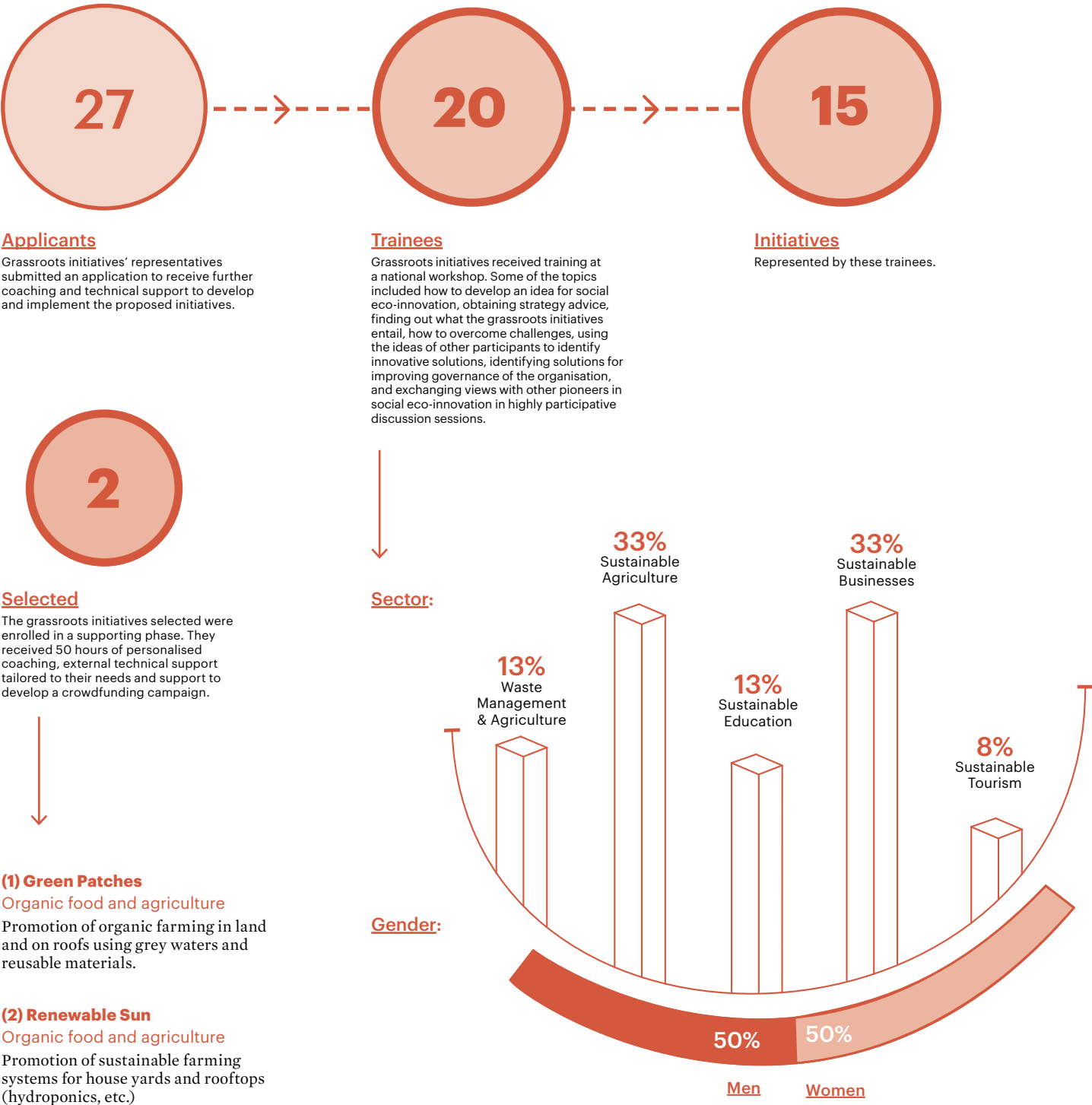
Business development center (BDC)

Established in 2004, is a non-profit organisation committed to fostering economic development and public reform in Jordan and the Middle East. BDC has been on the forefront of various successful projects and works with business service providers, government entities, universities and international partners. Among its main goals are the promotion of entrepreneurship and innovation, the creation of employment opportunities and the effective development of solutions to enhance the competitiveness of Jordanian SMEs, women, youth and local entrepreneurs.

Our local trainers, carefully selected by SCP/RAC as well, have extensive experience in initiating, implementing and evaluating environmentally and socially innovative projects and also have a deep understanding and knowledge of training methodologies based on empowerment, collective learning and a participative approach. At SwitchMed, they are responsible for actively participating in the regional co-creation workshop, together with other local trainers from the participating countries. Local trainers also support their local partner organisation and SCP/RAC in identifying grassroots initiatives and guaranteeing the participation of at least 20 social eco-innovative actors/initiatives in the national workshop. This task also includes the provision of support in disseminating the workshop call through the available channels in order to attract potential actors and initiatives for the national workshop. The trainers are also in charge of facilitating a four-day national workshop with the support and guidance of SwitchMed's Civil Society Empowerment team.

The local trainers participate in the multi-stakeholder process to select the best two initiatives arising in the workshop to receive further technical support. They also provide 50 hours of individual coaching support over 6-12 months, aimed at the development of a support plan to identify technical needs for the proper development and implementation of the project.

Civil society organisations are empowered to act as agents of change and to start community innovations



Meet our Jordanian civil society organisations supported

Green patches, creating green recreational spaces and parks in Azraq

In Jordan, Green Patches aims to encourage community members to create green recreational spaces and parks in Azraq, which is 100 km east of Amman. “Setting up the selection of the pilot area and identifying potential areas is crucial for the initiative, and this is what we have learnt during the support phase at SwitchMed”, explains founder Turki Hamed. “We have also acquired comprehensive knowledge on mechanisms related to the re-use of water and waste water irrigation systems for gardening.



Photo credit @_andrew

Renewable sun, promoting green roofs and green areas in public spaces

In Amman, Rakena Oliane and Reef Jalamdeh are leading the Renewable Sun initiative, which aims to accelerate progress in the green transition in cities. By setting up green roofs and promoting green areas in public spaces and balconies, we are committed to the transition to a greener, more sustainable and inclusive future”



Photo credit @Markus Spiske

Enabling access to finance for green start-ups and entrepreneurs by mobilising impact investment: The Switchers Fund

Photo credit: @SwitchMed



Financial instruments for innovative green businesses

At SwitchMed we are supporting the region's green entrepreneurs by enabling access to finance, providing direct finance to new and established green entrepreneurs and mobilising local investors and enterprise support programmes as well as European resources through the newly created SwitchersFund.

The Switchers Fund's mission is to support innovative green entrepreneurs in the development of their projects, first through grants to test new ideas and attract new funders, and as these projects grow by introducing adapted financial products such as concessional loans and ultimately through equity participations.

In the current situation where private and public financial institutions have difficulties to channel their investments to Medium and Small enterprises in our partner countries in Africa and the EU Neighbourhood region, the SwitchersFund core business lays at facilitating international capital flows from investors to entrepreneurs to facilitate, thus contributing to achieve the Sustainable Development Goals. As the first activity of the Switchers Fund, the Call for OSCE GEMS Award, granted a total of 90,000 euros in six South Mediterranean countries, 15,000 euros in each country to the best business idea. The OSCE GEMS Award was the result of the partnership between the Organisation for Security and Cooperation in Europe (OSCE) and the SwitchersFund, and was established thanks to the support of the Italian Government.

In addition to this, the Business Support Services Facility complements the SwitchersFund's financial instruments by supporting innovative entrepreneurs via capacity building initiatives, and, in general, enhancement of their access to finance, which focuses on the following actions: green business model and plan development, mentoring and technical expertise, crowdfunding campaign support a "Green Start-ups Meet Investors". The latter, that connects start-ups with the right investors

during matchmaking events, is a national event held in each beneficiary country. By covering the major issues that an experienced investor will look for (and expect) before they invest and getting to know the upcoming start-ups to the international investors' community, SwitchMed aims at mobilising investment capital to help with the growth of green business in the Southern Mediterranean. Prior to the pitch, the green entrepreneurs that are selected receive 30 hours of capacity building session to improve their communication skills and to prepare their business to be evaluated by the financial players. The stages of the investment process are also taught during that session. In the aftermath of the events, an individual feedback on the strengths and weaknesses of the project submitted with a monitoring of the contacts made with the investors during the meeting is offered to the green entrepreneurs with the aim of improving their capacity to meet the appropriate financial players. In total, 245 applicants submitted an application to join the Green Start-ups Meet Investor, 67 green entrepreneurs were selected and coached to give their pitch in front of investors. A total of 79 investors attended the events. A total 2,150,000 euros potential investment raised by the entrepreneurs is expected by the end of the programme.

An on-line financial toolkit for the green entrepreneurs, whether they are in ideation phase or already fully operational companies, was also developed to help them to better access to finance in the MENA region. The practical tool allows discovering their finance opportunities and all the necessary instruments and knowledge to approach potential investors, and determining, in 4 easy steps, the right funding strategy for their green business.

These activities, carried out by SCP/RAC, are jointly done with the European Federation of Ethical and Alternative Banks (FEBEA) and the Union for the Secretariat of the Mediterranean (UfM).

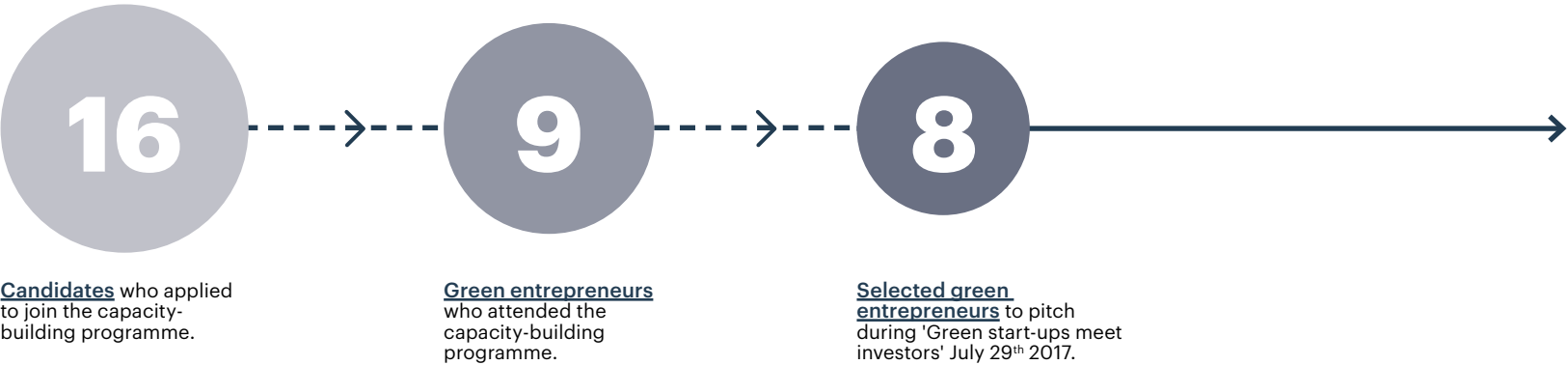
Meet our service providers

Our local service providers, carefully selected by the SCP/RAC, are organisations with extensive experience in supporting green entrepreneurs in business development and positive impact assessment, as well as providing them with the necessary support in access to finance. These organisations are selected on the basis of their capacity to empower the green entrepreneurs and their knowledge of financial opportunities in each country.

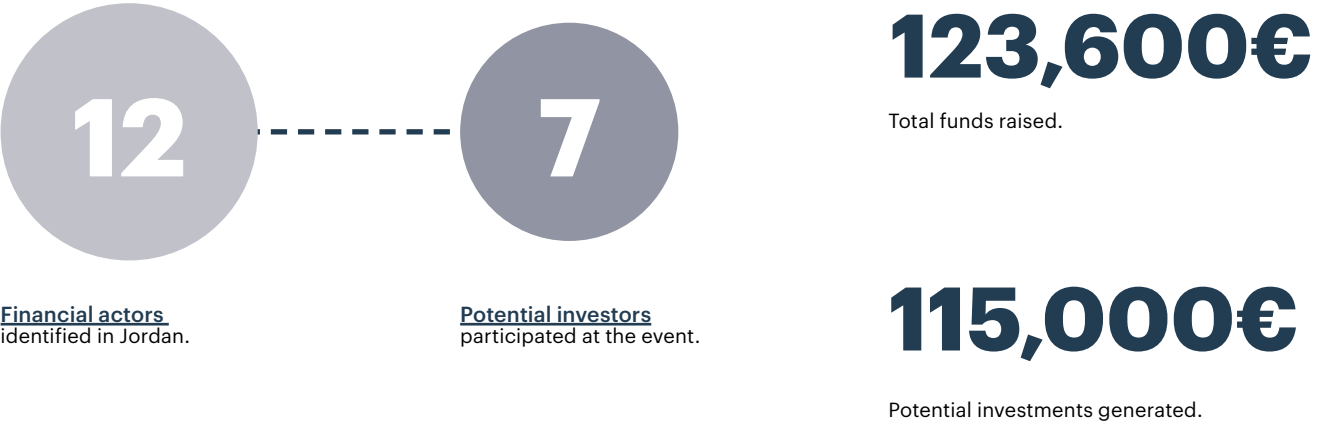
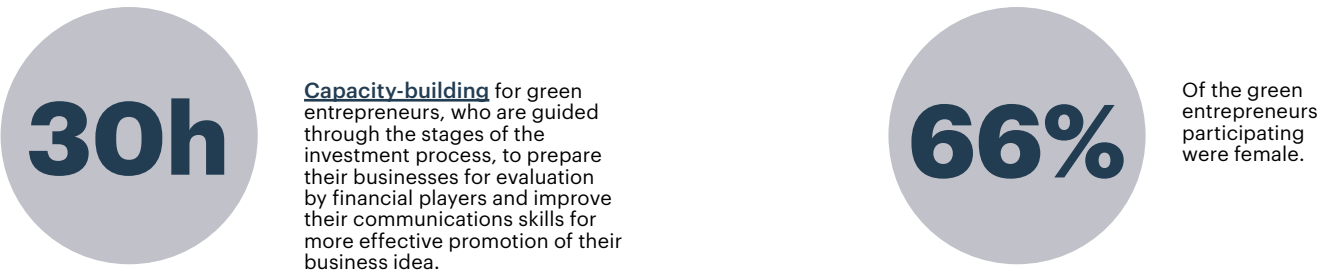
The main task of these organisations is to develop and implement capacity-building sessions on access to finance and improvement of the entrepreneurs' communications skills. Subsequent to training, the green entrepreneurs have the opportunity to pitch and showcase their innovative solutions to potential investors during a specific national event.

Local providers also supported SwitchMed in the development of the first green regional portfolio. The green portfolio lists the profiles of each entrepreneur and has been disseminated among potential investors.

Access to finance capacity building programme for green entrepreneurs



Discover our 7 green entrepreneurs who pitch during the “Green start-ups meet Investors” event



Name of the company	Business stage			
BioGreen		●		
Bookagri			●	
Building Works		●		
Golden Grass		●		
Green Visions		●		
JREDS			●	
Lina Energy		●		
	Ideation	Early stage	Growth	Scale

Enabling access to finance for Green entrepreneurs in Jordan

Recently, Jordan has witnessed growth in both entrepreneurship and SME markets. This growth was geared by governmental efforts to encourage the development of such businesses. The Governments and financial actors' focus has been on the ICT-related businesses targeting women and youth in most cases. green start-ups have received some governmental attention, mainly those in the renewable energy market, however awareness of other Green Entrepreneurship areas is still limited.

Access to finance in Jordan remains a challenge, not only for start-ups and entrepreneurs but also for business in general. Referred to as “getting credit” by the World Bank’s Doing Business report – Jordan ranked 159 out of 189 countries in 2017 in terms of getting credit, indicating an extremely low rank.

The Jordanian Government is working on bridging the financing gap for SMEs, pushing through initiatives with banks and multilateral institutions to offer more credit to smaller businesses. “Jordan’s private credit bureau – established by Italy’s CRIF and overseen by the Central Bank of Jordan (CBJ) – is expected to ensure better monitoring of borrowers, which should increase the ease of doing business in the country. In addition to calling for improved access to finance for small businesses, the CBJ has made JD1bn [1.2 billion euros] available to SME lending programmes”, according to Ziad Fariz, Governor of the Central Bank. Another governmental entity, the Jordan Loan Guarantee Corporation, was created to provide export credit and finance guarantees for SMEs. There are two main challenges preventing access to finance for innovative Green Entrepreneurs, which are:

Limited awareness of green innovation locally, at both community and institutional levels, is narrowing down financing options for such businesses. Currently in Jordan, renewable energy is the only green economy sector that raises the interest of investors.

“Green innovation” market value is not yet recognized by Jordanians, making it difficult for Green Entrepreneurs to prove market access when approaching financial actors.

There is no clear financing option in Jordan that is entirely dedicated for green start-ups. Other financing options that could serve Green Entrepreneurs are those targeting MSMEs in Jordan.

The amount of financing varies depending on the phase that the entrepreneur/business is in, as illustrated in the diagram below. In Jordan, available financing can get to more than 600,000 euros in the case of established companies of over 5 years of profitable performance. Wherein, most available financing options for start-ups and MSMEs range between 200–120,000 euros, with micro financing institutions offering the smallest amounts (200 – 12,000 euros).

A governmental push towards supporting SMEs and start-ups is also seen and a national Green Growth Plan has also been issued. Financial actors are also seeking innovative financial products to increase their market share and number of clients. And most importantly, Jordan’s Green Entrepreneur community is also growing.

To concisely illustrate the situation in Jordan, the figure below highlights the main financial products available to Green Entrepreneurs in each phase of the creation of an enterprise (ideation, early and growth stage), with an example of financial institution providing such products.

Concerning the financing options (see figure above), Jordanian green start-ups are most likely to start their activities through self-financing or by applying to existing grant programmes (USAID BEST & LENS, Canada Fund for Local Initiatives by Canadian Embassy, and Direct Aid Program by Australian Embassy). green start-ups can also obtain additional finance by working with existing incubators. In regards to loan finance, the micro-finance sector (for example National Micro-finance Bank) is well developed in Jordan and could also be a source of finance for smaller initiatives, even if the level of financing provided is limited. Beyond that, green start-ups can try to access bank loans for MSMEs, but they will need to show a positive track record to qualify for them and provide sufficient collaterals.



Photo credit: @GhaythFuad

Oro Verda is the inspirational start-up that won the Elevator Pitch in Jordan

The Finance Toolkit has been developed within the framework of the Switchers Fund. This practical, innovative tool will help green entrepreneurs from the Mediterranean region to improve their understanding of access to finance, and determine the appropriate funding strategy for their projects according to their business stage. In four easy steps, the Toolkit helps them explore the available finance opportunities and learn how to engage with business angels, how to get their project into an accelerator programme and how to proceed if they want to start a crowdfunding campaign. By the end of the process, they will have the tools and knowledge they need to approach potential investors and perfect their fundraising strategy.

Amina Abu Hamdeh, winner of the Elevator Pitch in Jordan, had the opportunity to test the Toolkit for her project Oro Verda, a start-up that aims to tackle nutritional deficiencies by producing gluten- and preservative-free organic liquid food supplements using extracts from three herbs, one of which is wheatgrass.

How did you find out about SwitchMed?

A friend of mine sent me an email with information about the programme, and then I found out about the Elevator Pitches.

And how was that experience for you?

It was very helpful. Thanks to the Elevator Pitch, I learnt a lot about the stages of the financing process and I learnt how to present my project to investors in an interesting way in just three minutes.

Sometimes we just need to pay more attention to the basics...

Exactly. Before this training, for instance, I didn't know how to write my company's vision and mission.

Did it help you to improve your communication skills as well?

Yes. This experience helps us to add our voices to those of the government stakeholders that can support green entrepreneurship in terms of law-making. I have also learnt that having the answers to all potential questions is important for investors. Their feedback let me know that I must be ready to present them with specific numbers, studies and references in hard-copy documents.

Have you already applied the investors' recommendations to your business?

I tried, but unfortunately the laws in Jordan block green leadership initiatives and offer no support to green entrepreneurs.

What would you say are the key factors that investors most value in green projects like yours?

I would say innovation, and also projects that understand the needs of the market and aim to provide solutions to real problems.

I understand the SwitchMed's Toolkit test also helped you to identify potential opportunities, is that true?

Yes, it helped me to define my fundraising strategy. I think this kind of instrument is necessary because, in my experience at least, most of the investors in my country lack environmental awareness and their requests can frustrate any green project if you're not aware of the finance opportunities available, according to your level of business development.

Have you found any funding opportunities yet?

Until now, the only cash support I have received has been from my family. I still haven't found any opportunity worthy of attention in Jordan because the situation here is disappointing. But I have just found out about a fund in Jordan that supports green pilot projects and this is an important and significant development in my country.

What about looking outside the country?

Yes, I am currently looking for investment opportunities outside Jordan, but so far I haven't found anything abroad either. I feel a bit frustrated but, despite the difficulties, I have just set up a company and established an office and I'm trying to make it anyway.

And what about the environmental impact, do you think that investors look for any type in particular?

Unfortunately, in Jordan, most investors lack environmental awareness. What interests them is the financial success of a project.

It sounds like you've had bad experiences with investors.

My experience with investors in Jordan has been disappointing. Even dealing with donors was disappointing because they tend to try to give grants and knowledge to their relatives and friends, who may not necessarily have the best projects or the greatest funding needs.

It must be frustrating...

Yes, and also because some requirements can frustrate any small project. For example, at one point my project reached the stage where it needed 3,500 Jordanian dinars for the Food and Drug Administration's scientific tests. This is a huge amount for me as an emerging entrepreneur, and I was unable to provide it. I was also required to establish a factory with no less than 50,000 Jordanian Dinars, and at the moment that is not a possibility.

Maybe raising awareness about environmental issues could help to get more attention from investors and financiers?

Maybe. It might benefit green entrepreneurs in the future, but for now my expectations are low, when they continue to give grants to projects that are environmentally inefficient.

Do you think SwitchMed's support on access to finance will continue to be a help for you?

Sure. Having participating in the Elevator Pitch and the Toolkit test, I see SwitchMed as a great opportunity to help small projects and green entrepreneurs gain access to finance. The exposure that the programme is giving to my project has also been very important, and the media has become more interested in highlighting similar green initiatives.

Support eco and social innovations of green entrepreneurs and Switchers through a mix of grants, loans and equity participations. Join now

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6

**Exchanging,
synergising
and engaging
with business
& investment
networks to
scale-up demo
actions.**



Supporting the visibility, effectiveness, long-term sustainability and impact of the SwitchMed programme

The SwitchMed Networking Facility, led by SCP/RAC, aims to contribute to the visibility, effectiveness, long-term sustainability and impact of the different activities carried out under the SwitchMed programme. In order to deliver this, the Networking Facility focuses on three main areas of activity:

Firstly, we enable extensive communication and networking and facilitate the exchange of best practices and lessons learnt among SwitchMed partners, connecting them with key external stakeholders. We have been working closely with 32 strategic partners in order to achieve common goals. We have also developed the SwitchMed Action Network, an online platform with a mobile app, to exchange knowledge related to SCP initiatives taking place in the Mediterranean, provide inspiration through disruptive innovations integrating closed-loops and collaborative consumption business models, showcase stories and participate in facilitated in-country stakeholder dialogues. It also functions as a database of experts. Another major activity is the organisation of SwitchMed Connect, a gathering of Mediterranean stakeholders to build synergies, exchange knowledge and scale-up eco and social innovations. Leading start-ups and entrepreneurs, industry agents, initiatives, change agents, policy and financial institutions working on applications related to productive, circular and sharing economies in the Mediterranean come together in Barcelona every year. In total, three events have been held, bringing together more than 1,000 stakeholders from 16 different countries.

Our second area of activity involves encouraging the scaling-up of activities and impact, with a focus on harvesting lessons learnt in order to replicate demonstration pilot projects, thereby contributing to activities' long-term sustainability and increasing visibility with regard to the impacts effected during the programme. To that end, the Networking Facility has promoted the production of regional and national scaling-up roadmaps that aim to replicate and continue the green innovations and demo activities beyond the lifetime of the programme. The Networking Facility has designed a general theoretical framework for scaling-up analysis based on the identification of a specific strategy tailored to the SwitchMed programme. In order to gain traction with regard to

sustainable consumption and production and generate greater impact, the scaling-up of the SwitchMed programme has been defined as “expanding, adapting and sustaining demonstration actions in more locations and over time to reach beyond the original target groups, with the ultimate vision of sustainable consumption and production being mainstreamed into everyday economic life across Southern Mediterranean countries”. For instance, the compelling outcomes and impact achieved by the SwitchMed Green Entrepreneurship programme indicate the growing demand for business support in Southern Mediterranean countries for the creation of circular economy business models, and clearly demonstrate the potential benefits of these business models. As the full potential equates to the creation of millions of jobs, effective strategies should be explored for scaling up the impact achieved.

The third line of action includes reinforcing the internationalisation of green start-ups and SMEs through closer cooperation between businesses and investment networks in Europe and Southern Mediterranean countries. As such, the Networking Facility has mapped the range of financial instruments available in four selected countries (Egypt, Lebanon, Tunisia and Morocco), as well as in Europe, and has organised seminars with national and international investors to discuss the barriers that restrict access to markets and sources of finance.

Despite the results for the relevant countries being collected at national level, it is important to process the results achieved across beneficiary countries and to provide a regional perspective; thus we collect data and facilitate information exchange across all SwitchMed activities, primarily at regional and thematic levels, communicating these to external stakeholders in line with the programme identity, as has been done since the start. Indeed, well-proven methodologies, tools and initiatives that avoid unnecessary efforts are used or carried out on a regular basis.

Meet our strategic partners

We work in strategic partnership with international and national organisations that are very experienced and active in addressing the shift to sustainable consumption and production in the Mediterranean region. Our strategic partners are like-minded organisations to facilitate the exchange of ideas, build bridges and synergies and foster cooperation among diverse organisations in different countries with shared goals.

Our strategic partners represent a diverse range of organisations whom we trust to help us execute our mission. Their expertise enables us to do far more than we could alone, and their passion and talent inspire us.

Our strategic partners have long-term commitment in the Mediterranean region have deep technical expertise on sustainable consumption and production work on a broad range of topics such as eco and social innovation, collaborative economy, life cycle assessment, green entrepreneurship business models...involve the Mediterranean countries in project design and implementation share the same values and vision for the region with us.

Our current strategic partners are:



Credits

Concept
SwitchMed

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