SwitchMed is an initiative that supports and connects stakeholders to scale up eco and social innovations.
SwitchMed is an initiative that supports 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 5 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-up 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 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.


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 the national governments, has identified job creation and natural resource protection as priority issues that also contribute to their economic stability.

SwitchMed Programme is funded by the European Union.
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 government-led 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.

Meet our focal points in Tunisia

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.

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.
The tourism and agri-food industries are now the main priorities for the Tunisian National Action Plan

The Ministry of Environment and Sustainable Development in Tunisia has adopted a Sustainable Consumption and Production (SCP) National Action Plan for two sectors that are considered the highest priority, the tourism and agri-food industries, over the next ten years (2016–2025).

The process to develop an SCP-NAP was started with an extensive assessment of the State of the Art on SCP in Tunisia and the publication of a structured report. This publicly available report is formulated around 6 chapters:

(i) Overview of SCP internationally and the experience of some countries in its implementation;
(ii) Institutional, legal and policy frameworks to implement SCP in Tunisia;
(iii) SCP in the primary sectors namely agriculture and livestock, fisheries and forestry;
(iv) SCP in the secondary sectors namely industry, power generation and construction;
(v) SCP in the sectors of transportation, tourism and trade;
(vi) State of play in the waste management and water-sanitation sectors.

Based on the results of this assessment report two ten-year plans have been developed for the tourism and agri-food sector. The action plans have been drawn up following and in-depth consultation process involving a large and diverse group of national stakeholders in Tunisia (government, private sector, civil society, media, academia).

The SCP-NAPs were built upon already existing and validated national strategies and plans to assure coherence, sustainability and implementation of the plans. Among the reference documents used are Tunisia’s National Industrial Strategy at the Horizon 2026 (2008), the National Strategy for the Green Economy (2015), the National Strategy for Climate Change (2012), the Guide to Sustainable Industry in Tunisia.

The development of the strategy and action plan for the development of the agri-food sector was based on a participative approach that involved the different actors linked to the sector: Ministry of Industry, Ministry of Agriculture, Ministry of Environment and Sustainable Development, Ministry of Health, Agency for the Promotion of Industry, International Center for The Environment of Tunis (CITET), National Agency for the Protection of The Environment, Technical Center for Agri-Food, Tunisian Union of Agriculture and Fisheries as well as NGOs and civil society associations. The key stakeholders involved in the work on the tourism sector are: Ministry of Tourism, National Federation of Hotels, Tourist Funicière Agency, Tunis International Center for Environmental Technology, National Office of Thermalism and Hydrotherapy among others.

These action plans are a response to the need to insert sustainability in the daily actions. The aim is to raise awareness among Tunisian organisations in terms of the impact of their actions on the quality of life of present and future generations. Each ten-year action plan presents clear objectives, key activities and a list of expected achievements and impacts.

Objectives

The Ten-Year Agri-food Action Plan 2016–2025 puts forward the following proposals: (i) streamlining the use of natural resources and minimizing the causes of damage (pesticides and waste); (ii) promoting sustainable agricultural practices and local knowledge and (iii) ensuring sustainable agricultural activity.

While the Ten-Year Tourism Action Plan 2016–2025’s objectives are: (i) promoting sustainable resource management and encouraging collective action, (ii) developing sustainable waste management and recycling, (iii) improving the quality of the options available and offering environmental certification, (iv) encouraging an integrated social and societal approach, (v) promoting the consumption of local and organic products and (vi) appraising the risk of flooding and coastal erosion.

Achievements and impacts

Each two ten-year plan includes a list of expected achievements and impacts - detailed lists are in the relevant SCP-NAPs:

Agri-food sector suggestions:

• Establishment of a national registry of industrialized products;
• Promote sustainable procurement in public institutions;
• Promotion of rail transport as an alternative to road transport;
• Conduct a study on the valorization of industrial waste from the agri-food industry in Tunisia;
• Development / dissemination of a manual on best practices in the use of pesticides and training programs on organic fertilization methods and cultivation techniques;

Tourism sector:

• Introduce the theme of consumption of local/organic products and economic practices in the 4- and 5-stars hotel (magnetic cards, water saving practices);
• Identify the list of tourism activities that can be part of sustainable tourism, considering the cultural aspects and the natural and cultural archaeological activities (rehabilitation, accessibility…);
• Develop and disseminate a good practice guide for consumers adapted to rural tourism;
• Developing a specific regulatory framework for ecotourism and other forms of sustainable tourism;
• Develop tourist circuits integrating the sites ecotourism and promote the creation of specialized agencies in Ecotourism circuits;

Implementation of the Sustainable Consumption and Production National Action Plans has started in Tunisia and first results will be monitored and presented during 2019.
The valorisation of olive oil by-products is booming in Tunisia

The production of olive oil is considered to be one of the largest agricultural business sectors in the Mediterranean area. Specifically in Tunisia, where you have already established a study in the country's economy, as is the world's largest exporter and importer of olive oil. The country is one of the world's major producers and exporters of olive oil and thus contributes to local development in his region. The plant is able to reach the framework of SwitchMed in which the agricultural sector of olive oil and thus contribute to local development in his region.

In September 2016, a Tunisian exporter was awarded a Tunisian eco label for packaged olive oil products, which, in turn, would also help to increase customer confidence and reduce negative consumer perception. That is why we have been so happy when we found out that we had been selected by SwitchMed to conduct a pilot project at our facilities.

This company, that now employs four people, was selected to audit the entire process of olive oil production, from the tree to the bottle, in order to assess any potential impact of our by-products and ways to be implemented to make our business fully sustainable.

By-products are important as they can be used for direct combustion, animal feed and as feedstock for direct combustion or pellet manufacturing. During the harvesting season, most oil mills discharge their waste into the natural environment without prior treatment, contributing to the degradation of soils and river ecosystems due to the introduction of a very high organic load in a short period of time.

Director Deputy of the National Waste Management Authority for Transfusions explained that “every year, Tunisian oil mills produce dozens of tons of by-products, such as mill wastewater, along with some 650,000 tonnes of pomace, approximately 70,000 tonnes of leaves, and some 150,000 tonnes of olive and olive stones. By-products are important as they can be used for direct combustion, animal feed and as feedstock for direct combustion or pellet manufacturing. During the harvesting season, most oil mills discharge their waste into the natural environment without prior treatment, contributing to the degradation of soils and river ecosystems due to the introduction of a very high organic load in a short period of time.

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Reducing the environmental impact of tourism without compromising the quality of the guest experience is possible.

Located in the Dorsale Mountains, an hour’s drive from Tunis, Dar Zaghouan is one of the ecological accommodation establishments in Tunisians to have adopted a circular econo-
my. The founders, ex-banker and nature lover Skander Zribi, preserving the environment is an essential part of Dar Zaghouan’s mandate. The eco-lodge uses solar energy and solar wa-
ter heaters to reduce the need for non-renew-
able energy resources. Eco-friendly agricul-
tural techniques are also used on the bed and
breakfast’s farm, the place where much of the
restaurant’s food is grown and harvested. The activities offered to guests all address conserva-
tion issues related to the surrounding area.

Today, Dar Zaghouan is a renowned ha-
ven of peace and a popular tourist destina-
tion, especially among city dwellers from Tu-
nis looking for tranquility. Over twelve years,
Skander Zribi has transformed his family’s re-
finished accommodation for fifty guests, a
restaurant serving local dishes, a large meeting room for hosting events, a traditional hammam
and already overcome obstacles and problems,
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Main achievements benefiting Dar Zaghouan in 2018

- 2 Years of continuous technical support in eco construction and sustainability measures thanks to 3 expert missions
- 1 Eco-audit carried out to advice on sustainable management and operation of the tourism eco-lodge
- 1 Eco-chalet built following circular economy criteria, which included 6 separate rooms to accommodate from 6 to 16 people, in order to promote the recommendation of the eco-audit and promoted nationally as a model for circular economy demonstrating the priorities of the National Action Plan.
- 30% of energy saved
- 5% of electricity saved through wood energy and the installation of solar panels
- 40% of total water consumption saved
- 470 m² of rainwater recovered per year
- 11 Green jobs created, 8 of which were for women to contribute to their empowerment and preserve the traditional knowledge
- Green Key Label eco-labelling certification evaluation and mentoring. The certification is in process
- 1 Week-trip to France to visit 5 eco-lodges to enhance hands-on knowledge and exchange experiences amongst other like-minded enterprises
- 1 National workshop on ecotourism in Tunisia hosted in Dar Zaghouan
- Further information at: http://www.darzaghouan.com/
In Tunisia, tourism is an important economic sector and a key industry. It has a triple effect on the country’s economic development. In addition, tourism markets are highly sensitive to the quality of services and the environment. Moreover, it has many benefits, including job creation, environmental awareness, and economic growth. However, it also has negative impacts, including pollution, overuse of resources, and deterioration of natural and cultural heritage.

Tourism in Tunisia is still focused on the traditional image of ‘sun, sea, and sand’. The tourism industry is dominated by mass tourism, which has negative effects on the environment and the local community. This type of tourism is not sustainable and does not contribute to the development of the country. Therefore, it is necessary to develop alternative forms of tourism that are more environmentally friendly and socially inclusive.

Ecotourism is an emerging trend in Tunisia. It is a type of tourism that focuses on preserving and conserving natural and cultural heritage. It is often associated with sustainable practices and has an eco-label. Ecotourism is increasingly engaged with eco-friendly and socially inclusive tourism providers. The rapid growth in the tourism industry has led to a new concept of ecotourism. As a result, a new range of products was created and adapted to the market in terms of quality and price.

Tourism development in Tunisia is underwritten by strong national policies. The main achievements of the Tunisia Ecotourism project in 2018 include:

1. Years of continuous expert support and training
2. New ecotours created, which consist of a range of natural and mixed culture-nature tours at different sites, with the focus on environmental education and discovering the local culture.
3. Communication and marketing strategy enhanced, including tools and messages sharpened to the newly created circuits.
4. Website developed providing information on all the tour details and the values of the company.
5. Online platform developed, to promote sustainable products produced by local craftsmen, many of which are women, allowing them to gain recognition and help in maintaining traditions that are on the brink of disappearing.
6. Final workshop on ecotourism with more than 50 relevant experts involved in the project and Tunisia Ecotourism. They have formed an excellent partnership, redirecting the company’s efforts. The project’s success was achieved through a variety of cooperation and collaboration agreements with local experts involved in the project and Tunisia Ecotourism.

According to Souissi, “We promote the region in an excellent partnership, redirecting the company’s efforts. The project’s success was achieved through a variety of cooperation and collaboration agreements with local experts involved in the project and Tunisia Ecotourism.”

The five new ecotours consist of a range of natural and mixed culture-nature tours at different sites, with the focus on environmental education and discovering the local culture. They include walking tours to discover historical monuments, archaeological sites and traditions, as well as the region’s rich flora and fauna, such as the Persian cyclamen and the mountain gazelle. For example, one takes the form of a birdwatching weekend trip, in which people have the idea of developing a company specialised in nature conservation. Together with companies involving over 50 relevant active stakeholders in the sector, they have formed an excellent partnership, redirecting the company’s efforts. The project’s success was achieved through a variety of cooperation and collaboration agreements with local experts involved in the project and Tunisia Ecotourism.
Tunisia is making progress on lead paint elimination

Lead in paint is a serious threat to the long-term human health and although its use has been restricted in many countries, it is still being used in many others such as Tunisia. In fact, out of the Southern Mediterranean countries only Algeria has completely restricted lead in paints.

Lead is a toxic heavy metal which is used in a variety of applications including in decorative paints as a pigment and in rustproof primer paints (lead chromate). The World Health Organization lists lead exposure as one of the top ten environmental health threats globally. The Institute for Health Metrics and Evaluation (IHME) has estimated that in 2013 lead exposure accounted for 853,000 deaths due to long-term effects on health, with the highest burden being in low and middle income countries. Children are especially vulnerable to the negative health effects from lead, including decreased intelligence and increased rates of behavioural issues. Childhood lead poisoning, can also take place during pregnancy and can have lifelong issues. Childhood lead poisoning, can also take place during pregnancy and can have lifelong issues.

Lead and other toxic chemicals that are widely used in the Southern Mediterranean region are certainly following the right path and is acting responsibly, preventing the environmental and health impacts of lead and lead compounds. Other solutions currently available on the market to substitute products of those who haven’t switched. A way could be organising SMEs in a cluster and set up funds and financing mechanisms to help them do the transition to free alternative paints. It is important that interested stakeholders could work on a clear communication strategy and ensure its implementation. The project has show an important commitment from all actors to move forward. Tunisia is certainly following the right path and is working hard in that direction.

Awareness campaigns to the harms of lead in paint and the available alternatives on the market to challenge policy makers and urge them to take action supporting industries during the transition to non-toxic alternatives. Scientific research to develop more sustainable and economically viable alternatives.
Demonstrating the business case of a resource efficient and cleaner production (RECP) in the chemical, food, leather, mechanical, and textile sectors in Tunisia’s industry.
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 in 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, created 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 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 1,450 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 97,525 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.

The MED TEST II project has demonstrated the business case for RECP in five of Tunisia’s most important industry sectors, and establish reference cases for national service providers willing to offer the TEST concept to interested industries through Tunisia. Together with its Tunisian partners, UNIDO uses capacity building activities and industry demonstrations to illustrate more sustainable manufacturing techniques and new green business models within 26 companies from the chemical, food, leather, mechanical, and textile sectors, thus stimulating the capacity of the Tunisian industry to transform into a more resource-efficient production model.

A: Centre National du Cuir et de la Chaussure (CNCC)

Established in 1969, the CNCC is linked to the Ministry of Industry and works to develop and promote the leather industry sector in Tunisia. By providing Tunisian companies with technical assistance, coaching, analysis, testing, training, R&D, and promotion, the CNCC can give qualified support to the leather industry on how to adapt to new requirements and economic developments.

The CNCC has been the lead technical implementing partner for the MED TEST II project in Tunisia throughout the life of the SwitchMed programme, and has also demonstrated the TEST methodology in Tunisia’s leather sector.

B: Centre Technique de la Chimie (CTC)

It was founded in 1996 under the supervision of the Ministry of Industry and Technology. The CTC offers the chemical industry in Tunisia assistance in modernising production methods, improving technology and quality control. During the MED TEST II project, the CTC was responsible for demonstrating the TEST methodology in selected companies from the Tunisian chemical sector.

C: Centre Technique du Textile (CETTEX)

Established in 1982, the CETTEX offers technical assistance to the textile and clothing industry and public authorities. The CETTEX can give qualified support to the textile and clothing industry and public authorities.

The CETTEX conducted the demonstration of the TEST methodology in selected companies from the Tunisian textile sector.

D: Centre Technique des Industries Mécaniques et Électriques (CETIME)

Established in 1969, the CETME is linked to the Ministry of Industry and works to develop and promote the mechanical and electrical industry sector in Tunisia. By providing Tunisian companies with technical assistance, coaching, analysis, testing, training, R&D, and promotion, the CETME can give qualified support to the mechanical and electrical industry sector.

The CETME has been the lead technical implementing partner for the MED TEST II project in Tunisia throughout the life of the SwitchMed programme, and has also demonstrated the TEST methodology in Tunisia’s mechanical and electrical sectors.

E: Centre Technique de l’Agro-alimentaire (CTAA)

The CTAA offers the agro-food industry in Tunisia assistance in modernising production methods, improving technology and quality control. During the MED TEST II project, the CTAA was responsible for demonstrating the business case for RECP in selected companies from the agro-food sector.

Partners for green growth in industries

Strengthening national capacities and competencies related to Resource Efficient and Cleaner Production (RECP) is not only one of the key objectives of the MED TEST II project, it is also an effective way to ensure a sustainable impact that endures beyond the life of the project. For this reason, UNIDO is working closely with government institutions and industry and civil society stakeholders to raise the profile of RECP in the eyes of policy makers and knowledge networks able to strengthen national capacities with their RECP expertise.

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Resource efficiency: a major opportunity for Tunisia’s industries

In the aftermath of the revolution, Tunisia remains a country full of challenges that will continue requiring innovative solutions that can support the economic development of the country. While important steps in reforming the society has been taken, the economic growth has unfortunately not maintained the same pace with high unemployment figures and shrinking domestic demand as a result. For instance, the slow recovery of the buckled tourism sector has also affected the Tunisian food industry, as much of the domestic consumption remains linked to the development of this so important economic sector. This development, together with the regional security risk, has of course posed to become a growing threat to Tunisia’s long term economic competitiveness.

Still, the country is determined to mobilize all efforts to accelerate its development and strives to increase its GDP while creating new employment opportunities. But in order to get there, the economic challenges that Tunisian SMEs are facing must be addressed, so that they can maintain their competitiveness and their role as an employer. The economic challenges of the Tunisian industry is closely connected to the reliance of expensive, carbon fossil fuels for energy, an increasing water scarcity, and soaring prices for imported raw materials. Creating opportunities for Tunisia’s industry to save resources would not only improve the economic situation of the businesses, but would also help to ensure the availability of resources for other parts of society.

With 26% of Tunisia’s GDP, industries, and especially SMEs, continue to play a key role in the process of economic diversification, not only as a resource consumer, but also as a supplier to other economic sectors and as a driver of economic growth and job creation. But the way industries deal with waste, energy and water needs to change fundamentally, especially if Tunisian businesses are going to be able to compete on the growingly important global export market. Therefore, industries require tools and investments that would make the production more resource and energy efficient, non-polluting, and safe — maintaining the competitiveness of the businesses.

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. In 2009 UNIDO introduced the TEST concept in Tunisia as part of the MED TEST initiative, which was co-funded by the GEF and the Italian government. Between 2009-2011, the initiative targeted 4 industrial sectors and 11 industries, to become more resource efficient, safe and less polluted and could already then reveal that there is a huge potential for resource efficiency in SMEs of Tunisia.

Following the outcomes of the MED TEST initiative, the MED TEST II project, functions as a unique and innovative part of the SwitchMed programme and seeks to further demonstrate how the business case of a resource efficient and cleaner production can be unscaled throughout the Tunisian industry. The MED TEST II project, implemented in Tunisia from 2015 to 2017, has enabled the 26 Tunisian industries, from the food, leather, textile, chemical, and the mechanical sectors, to identify 362 RECP measures. Thanks to the MED TEST II project, the 26 industries will reduce their annual water consumption with 448,950 m³ and their energy consumption with 111.2 GWh per year. These investments will require 14.1 million euros in investment from the businesses, with an average payback period of 1.5 years and accumulate annual savings worth 9.7 million euros for the 26 industries. Correspondingly, the leverage for private sector investments in resource efficiency has compared to the MED TEST initiative grown with 40% in the MED TEST II project. This clearly shows that there still is a significant potential and profitability for the RECP concept in Tunisia.

If other businesses decide to take on the approach of a resource efficient production in the industry of Tunisia, the RECP concept could become a core element in 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 Tunisia’s industry is about to change and tap into the full extent of their 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. 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 Tunisia. An action plan that will support the facilitation and reinforcement of national competences around the topic of RECP and green growth has been developed with the ambition to mainstream the RECP approach throughout the industry in Tunisia.
In Tunisia 26 industries from the food, chemical, mechanical, textile, and leather sectors joined MED TEST II:

**Partners for a green growth**

**In Tunisia 26 industries from the food, chemical, mechanical, textile, and leather sectors joined MED TEST II:**

- **SAIPH**
  - Producer of: Pharmaceuticals
  - Location: Ben Arous
  - Employees: 600

- **SARAH**
  - Producer of: Car parts & industrial utilities
  - Location: Ben Arous
  - Employees: 260

- **SOCIÉTÉ DE FABRICATION TEXTILE (SFT)**
  - Producer of: Textiles
  - Location: Ben Arous
  - Employees: 177

- **COTREL**
  - Producer of: Stabilizers & springs for the auto industry
  - Location: Ben Arous
  - Employees: 500

- **COMPAGNIE INDUSTRIELLE DE TRICOT TUNISIEN (CITT)**
  - Producer of: Textiles
  - Location: Tunis
  - Employees: 20

- **NOEL TUNISIE**
  - Producer of: Leather
  - Location: Majaz Al Bab
  - Employees: 509

- **SIA’AM**
  - Producer of: Car parts & industrial utilities
  - Location: Ben Arous
  - Employees: 280

- **ABCO**
  - Producer of: Car parts & industrial utilities
  - Location: Impasse Amman
  - Employees: 300

- **EL FELLAH**
  - Producer of: Conserved fruits, tomatoes & harissa
  - Location: Mégrine
  - Employees: 50

- **FROMAGE FIORE**
  - Producer of: Cheese
  - Location: Menzel Temime
  - Employees: 40

- **LA SOCIÉTÉ TUNISIENNE DE VÊTEMENT DE TRAVAIL ET DE LOISIRS (VTL)**
  - Producer of: Textiles
  - Location: Menzel Temime
  - Employees: 94

- **ETABLISSEMENTS ZOOLLI FRERES**
  - Producer of: Canned tomatoes
  - Location: Kirba
  - Employees: 80

- **LA TANNERIE MÉDISSERIE EL FEJJA II**
  - Producer of: Leather
  - Location: Mornaguia
  - Employees: 35

- **TERIAK**
  - Producer of: Pharmaceuticals
  - Location: Qailef Dust
  - Employees: 500

- **LA SOCIÉTÉ TUNISIENNE DE CUIR (SO.SA.CUIR)**
  - Producer of: Leather
  - Location: Sousse
  - Employees: 60

- **SAIPH**
  - Producer of: Pharmaceuticals
  - Location: Menzel Temime
  - Employees: 600

- **SOCIOCHIMIQUE ALKIMIA**
  - Producer of: Chemicals
  - Location: Gabes
  - Employees: 493

- **LA SOCIÉTÉ TUNISIENNE DE CHAMOISAGE (SOTUCHAM)**
  - Producer of: Leather
  - Location: Sidi Salem, Sfax
  - Employees: 40

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Why Tunisian businesses should improve resource efficiency

Rachid Nafti's profile:

Rachid Nafti is a Senior TEST expert and has been working with UNIDO in developing the Southern Mediterranean industry for many years. He has a background in environmental management and is a consultant and researcher in the environmental field. With 25 years of experience in the management, coordination and monitoring of environmental projects in Tunisia, North Africa and Middle East region, Rachid shares with us how UNIDO managed to attract SMEs into the MED TEST II project, where the biggest challenges lie ahead for Tunisia’s growing industry, and how the tools of TEST could remedy these challenges.

As a Tunisian, working for UNIDO in Tunisia, you have a unique insight into the current situation of industries from the Tunisian Industry. Where do you see their biggest challenges and what can be done to assist them?

By many measures, Tunisia has the best chance to develop itself and adopt a more inclusive and sustainable economic model. A democratic transition has done some set-backs established a dialogue of consensus and a highly educated labour force is waiting to contribute to the economic development, but unfortunately the unemployment remains high diminishing the local demand and purchasing power. The Tunisian industry sector plays a significant role for the economy and is Africa's sixth largest manufacturing sector. However, the growth rates after the revolution and the level of foreign direct investment have been poor, which has made the situation for the industry even more difficult. So, in order to compete better locally and globally, SMEs in Tunisia must modernise their information systems, acquire production practices and technologies that meet international standards. This would allow them to produce with fewer resources and at a better cost, which again would strengthen their role in the export market and maintain and create jobs in the country.

How can the UNIDO TEST methodology help industries in managing inefficiencies and become more cost effective?

More often than not, companies are not aware of the losses that occur in their production. The UNIDO TEST approach, builds on the concepts and tools that are leaned on the model of a Resource Efficient and Cleaner Production (RECP) While the RECP approach envisions improving production techniques to become cleaner and more resource efficient as a preventive strategy to reduce pollution and increase cost savings for businesses, the TEST methodology identifies some specific features that the embedded traditional “one-stop improvement” or “audit-like” approaches to resource efficiency.

The TEST approach allows industries to identify the most important leverage points for improvement and the most appropriate tools that are customized in a way that matches the needs of a business. Enabling business to be part of the process in identifying the best intervention in the production, does not only allow a higher acceptance of the proposed solutions, it also gives ownership of the process and ingrains a culture where resource efficiency becomes part of a corporate culture. Moreover, the application of the Material Flow Cost Accounting tool set up an effective and supportive information system in the business.

As a result, the actual costs of material and energy flows became evident in the production process. So, together with the company, the TEST team measures could be developed that would remedy the flow in the production process. This could in some cases simply be a fine-tuning of the equipment or in some cases an investment in a more efficient technology. In any case, it is when you reveal the monetary value of the losses that a business is doing every day that managers start to listen to improvement measures that can be done in their production.

So how did the MED TEST II project work in Tunisia and how could industries get connected in taking part in the demonstration projects?

In the regional MED TEST II project, UNIDO worked together with local experts to demonstrate best practices on RECP throughout the eight countries of the SwitchMed programme. In Tunisia, the MED TEST II project involved industries from the chemical, food, leather, mechanical, and textiles sectors and was implemented by five technical centres, each representing a sector and with the national centre of leather and shoes (CNCC) taking the lead for coordination. Projects that relate to efficiency measures in energy consumption typically appeal to many businesses as this is often a well-known factor for the business. However, the experiences from the MED-TEST I project in Tunisia had also revealed that there is a significant saving potential in other areas, such as water, raw material but also in environmental compliance costs.

In the regional MED TEST II project, UNIDO worked together with local experts to demonstrate best practices on RECP throughout the eight countries of the SwitchMed programme. In Tunisia, the MED TEST II project involved industries from the chemical, food, leather, mechanical, and textiles sectors and was implemented by five technical centres, each representing a sector and with the national centre of leather and shoes (CNCC) taking the lead for coordination. Projects that relate to efficiency measures in energy consumption typically appeal to many businesses as this is often a well-known factor for the business. However, the experiences from the MED-TEST I project in Tunisia had also revealed that there is a significant saving potential in other areas, such as water, raw material but also in environmental compliance costs.

If you want to make business listen, you need to speak the language of the business, which eventually is about how to make more money.

The numbers that we could present from the MED TEST I project were naturally helpful in raising awareness on this issue. But essential, the demonstration projects gave us numbers from the companies that confirmed that the TEST methodology really made an impact on the production costs for the businesses. For instance, the application of the Material Flow Cost Accounting tool set up an effective and supportive information system in the business.

As a result, the actual costs of material and energy flows became evident in the production process. So, together with the company, the TEST team measures could be developed that would remedy the flow in the production process. This could in some cases simply be a fine-tuning of the equipment or in some cases an investment in a more efficient technology. In any case, it is when you reveal the monetary value of the losses that a business is doing every day that managers start to listen to improvement measures that can be done in their production.

What can be done to make investments in resource efficiency for SMEs more attractive?

As already illustrated above, the potential of reducing cost savings in the production process is significant and goes far beyond the scope of financial considerations of the companies. However, this does not mean that there are no additional benefits from adopting RECP and that is related to the environmental traits of RECP.

The MED TEST II project in Tunisia revealed that the 26 demonstrations companies could through the identified saving measures annually save 448,950 m³ of water and 111.2 GWh of energy, reducing their CO₂ emissions by 35,227 t per year and 2,371 t of solid waste reduction could also be achieved. Now these figures matter especially in a country like Tunisia where water is much needed elsewhere and where energy needs to be imported at a very high cost. Consequently, switching to more resource efficient production is not only good for the businesses it is also contributing to a better environment and the redistribution of resources to other parts in the society.

Where do you see the challenges regarding the implementation of resource efficiency at different scales in Tunisia and what impact could this have for the future development of the country?

Although, the adoption of RECP is evident to me, we still need to look on how the situation looks like in Tunisia and what needs to be done in order to make the most of on the achievements of the MED TEST II project. This is important because we want to understand the structural barriers that hinder a sector wide uptake of RECP in industries. At UNIDO we have, in consultations with the national partners, the government, and key stakeholders developed a roadmap for scaling up resource efficiency projects. A set up of actions has been developed to support the uptake of RECP in Tunisia. The action plan was for instance on the issue of raising awareness on the benefits amongst industries and policy makers for RECP but also on how to strengthen the national capacities on RECP in Tunisia, and also on how to shape the new generation of industrialists, business leaders and the curricula of the universities. Now, in order to remain competitive on the global market, Tunisia’s industry need to take the path of RECP. But also, if you look on the growing market demand for environmentally friendly products, this has also become a growing issue for Tunisia’s export industry. If Tunisia’s industry chooses to take the path of RECP, this would add additional value, not only to the industry, but also to our position in the MENA region and Africa as a country where innovation and development go hand in hand.
**Case studies from Tunisia**

NOEL TUNISIE is a Tunisian company specialized in producing shoes for children under their own brand, but also as an exporter to various brands in France. With over 500 employees, the company is also an important employer in the Beja region. Improving the efficient use of materials in the production was together with the prospect of making water and energy savings, one of the reasons why NOEL TUNISIE decided to join the MED TEST II project. The TEST team could through the application of the Material Flow Cost Accounting tool quickly identify that leather summed up significant costs in the production. NOEL TUNISIE identified measures that will valorise leather scrap and together with the instalment of new cutting machines, the production can be optimized saving 64 t of leather per year and 12 t of steel for the cutting equipment. All in all, the MED TEST II project could identify savings in raw materials worth 1.3 million euros requiring investments of 1.4 million euros. The project demonstrated to NOEL TUNISIE on the importance of operating resource efficient and cost effective.

**TERIAK** is a producer of pharmaceuticals for the local and export market (35%), employing 500 individuals in the Tunis region. With an annual production capacity of 650 t, any savings in the use of raw materials would make a significant impact on the production cost for the business. The TEST team suggested several options for improving the manufacturing process of the medication, such as: optimizing the process of filling the powdered products, increasing the size of the batches manufactured in order to reduce control times and cleaning water, improve performance and reduction of losses during filling capsules, and raising staff awareness about issues of improving yields and productivity. These actions helped TERIAK to save raw materials, energy and water while reducing waste worth 34,520 euros with a minimal investment of 8,467 euros. Collectively, the MED TEST II project could identify savings worth 219,750 euros in TERIAK and will also help the company to reduce 1,216 t of CO2 emissions per year.

**ABCO** is a producer of canned fish for the local and export market (49%) with an annual capacity of 4 588 t. As a flag ship enterprise in the Tunisian food industry, with 300 employees, ABCO has already adopted several management standards, such as the ISO 9001, ISO 22000, CE, FDA. Through the MED TEST II project, the company could make preparations to obtain the ISO 14001 certificate. Thanks to the project ABCO could also identify savings in energy, water and raw material consumption to annual value of 84,384 euros. A particularly innovative solution was found for the de-frosting of fish. By using an aerosol technology the annual water consumption used for this process can be reduced with 2,628 m³ and saving 20 t of sardines per year. On the whole, the MED TEST II project could identify savings in energy, water and raw material consumption worth 415,522 euros.

**The MED TEST II project has allowed us to implement a large number of measures which are beneficial to the environment with considerable economic gains. This simply sustains and consolidates the company’s strategy in terms of sustainable development.”** Imed Ellouze, QSE Director, MISFAT

**NOEL TUNISIE**

<table>
<thead>
<tr>
<th>Total savings, p.a</th>
<th>Water savings, p.a</th>
<th>Energy savings, p.a</th>
<th>Material savings, p.a</th>
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<tbody>
<tr>
<td>1,211,511€</td>
<td>20%</td>
<td>3%</td>
<td>34.7%</td>
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**TERIAK**

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<th>Material savings, p.a</th>
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<tbody>
<tr>
<td>219,750€</td>
<td>4.5%</td>
<td>0.5%</td>
<td>23.5%</td>
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**ABCO**

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<th>Total savings, p.a</th>
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<th>Material savings, p.a</th>
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<tr>
<td>84,384€</td>
<td>1.4%</td>
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**MISFAT**

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<th>Total savings, p.a</th>
<th>Water savings, p.a</th>
<th>Energy savings, p.a</th>
<th>Material savings, p.a</th>
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<tbody>
<tr>
<td>415,522€</td>
<td>9%</td>
<td>7.4%</td>
<td>17%</td>
</tr>
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</table>

**“The MED TEST II project made us aware the importance of our different uses of energies and materials and so from us to advocate for the protection and prevention of pollution throughout the realization of our products while respecting the regulation, improving performance environment and using energy and raw materials responsibly.”**

Marc Leroux, General Manager, NOEL TUNISIE

“Thanks to the MED TEST II project we were able to improve our cost accounting in place by determining the hidden costs and environmental issues. The TEST approach has also helped us to save resources and improve our energy management system.” Samy Bellagha, Deputy General Director, ABCO

“The MED TEST II project approach with its different aspects was the frame ideal to reinforce our commitment to the environment.”

Ms. Asma Sellami, Production Manager, TERIAK

“Enabling a green growth for industries”

Chapter 2

Total savings by the selected companies
Annual environmental impact savings identified in the 26 Tunisian food industries

101 professionals from academia, business associations, government institutions and industries received training on the TEST tools during the demonstration phase of MED TEST II in Tunisia.

448,950 = 1,462
m³ per year of annual water savings = Tunisian households annual water consumption

35,227 = 7,479
tonnes of annual CO₂ savings = passenger vehicles driven for one year

111.2 = 77,000
GWh per year of annual energy consumption savings = Tunisian households annual energy consumption

26 = 9,700,000
companies = euros saved annually
Scaling up a resource efficient and cleaner production throughout the Tunisian industry

The transition to circular economies 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, Tunisia is committed to include the dimension of sustainable development in all of its public policies. At the regional level the SwitchMed program is, consequently, designed and implemented to facilitate the transition to Sustainable Consumption and Production (SCP) patterns in the Southern Mediterranean region. At the national level, Tunisia’s commitment to sustainable development is realized through the adoption of a national strategy (NSSD) and the development of an action plan for SCP (SCP NAP). In addition, the new investment law of 2016 encourages investments in sustainable production by providing financial incentives called sustainable development allowance.

Making the transition from demonstration activities to a sector wide mainstreamed adoption of RECP in the industry of Tunisia, would be pivotal in helping achieving the SDGs in Tunisia. 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 Tunisia 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 Tunisia, is to eventually create a system change around the topic of RECP for industries in Tunisia that will encourage an adoption and change towards RECP. Considering the skills and experience acquired in the field of RECP as the service providers of the MED TEST II project, the sectoral technological centres will be best suited for leading the implementation of the roadmap. They will have a significant role in mobilizing and cooperating effectively with key stakeholders consisting of policy makers, members of the public administration, funding institutions and target group associations.

The table below lists the priorities that were identified in the development of the roadmap for RECP in Tunisia and the required action, needed to accomplish the roadmap.

1.1 Institutionalization of detailed environmental diagnosis (DEA)
1.2 Establishment of voluntary agreements (VA)
1.3 Strengthening the preventive approach through voluntary environmental reporting
1.4 Requirement for company self-monitoring as a condition for access to Environmental Fund (FODEP)
1.5 Integrate RECP criteria in the procedure for granting the allowance under the new sustainable development allowance scheme created by the investment law (7D-2016)
1.6 Interest rate subsidies for loans used to finance environmentally sound technologies

2.1 Marketing campaigns on RECP with industrialists in the regions
2.2 Communication and outreach about the UNIDO MED TEST II success stories within industrial enterprises
2.3 Creation of a database on eco-innovative and sustainable technologies

3.1 Strengthening and developing the skills on RECP through training of support structures
3.2 Integration of TEST modules in the university curriculum (industrial engineering, process, chemistry, etc.)
3.3 Tailoring TEST training toolkit to local context
3.4 Creating a local guide on the TEST approach
Building technical capacity and 
supporting green businesses in order to build a green entrepreneurship ecosystem in the Mediterranean.
Green Entrepreneurship in the Mediterranean countries. Ten local partners were selected to follow-up At SwitchMed we are building a green entrepreneurship ecosystem in the Southern Mediterranean. The methodology—a hybrid 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 includes practical exercises, tools, and case studies to help entrepreneurs identify challenges and opportunities to promote green entrepreneurship. The main task of the local partners is to assist the SCP/RAC in identifying and selecting local trainers as well as potential green entrepreneurs to join our training programme. They are responsible for disseminating information, offering training workshops, and follow-up and evaluation.

Many local partners have a sound business idea but may lack the knowledge and skills needed to transform their idea into a viable business. For this reason, the Green Entrepreneurship programme also includes training and incubation programmes for individuals on 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 of individual follow-up advisory service by a local mentor, a tailor-made technical assistance and support to develop a crowdfunding campaign and open an e-commerce website, 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 60 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 and environmental innovation, 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 where the main incubation support, plus some extra administrative hours, to help the green entrepreneur to successfully produce a viable green business plan, among other things. The mentoring framework is implemented according to the work plan and methodology developed by the SCP/RAC, including the principal document “Launch Your Green Business,” and other supporting documents. In addition to support from their local mentor, green entrepreneurs will receive technical expertise based on their specific needs, to help them develop their green business plan and guide them through other activities (e.g., marketing and communication, etc.). Members of the SCP/RAC Green Entrepreneurship team are in constant communication with all stakeholders and regular follow-up is essential to ensure that qualitative and sustainable support is available to green entrepreneurs.

Meet our local partners

Our local partners, selected by the Regional Activity Centre for Sustainable Consumption and Production (SCP/RAC), are organisations with extensive experience in delivering training programmes specifically addressed to entrepreneurs and promoting environmental sustainability, as well as identifying social and environmental needs they are addressing, to help them develop their Green Business Plan, among other things. The mentoring framework is implemented according to the work plan and methodology developed by the SCP/RAC, including the principal document “Launch Your Green Business,” and other supporting documents. In addition to support from their local mentor, green entrepreneurs will receive technical expertise based on their specific needs, to help them develop their Green Business Plan and guide them through other activities (e.g., marketing and communication, etc.). Members of the SCP/RAC Green Entrepreneurship team are in constant communication with all stakeholders and regular follow-up is essential to ensure that qualitative and sustainable support is available to green entrepreneurs.

At SwitchMed we are building a green entrepreneurship ecosystem in the Mediterranean by supporting green entrepreneurs from Southern Mediterranean countries. The methodology—a hybrid 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 includes practical exercises, tools, and case studies to help entrepreneurs identify challenges and opportunities to promote green entrepreneurship. The main task of the local partners is to assist the SCP/RAC in identifying and selecting local trainers as well as potential green entrepreneurs to join our training programme. They are responsible for disseminating information, offering training workshops, and follow-up and evaluation.

Meet our local partners

Confederation of Citizen Enterprises of Tunisia (CONECT)

It is an employers’ union organisation that brings together small, medium-sized and large Tunisian and foreign companies operating in different sectors of the economy. Through its many professional structures, CONECT is present in all regions of the country to defend the interests of its members, represent them before public authorities and promote private initiatives to develop the economic and social fabric of the country. CONECT is guided by values of citizenship, solidarity, transparency, responsibility and equity.

Tunis International Centre for Environmental Technologies (CITET)

It is a non-administrative public institution (IFNA) supervised by the Ministry of Local Affairs and Environment. Created in 1996 in response to international recommendations from the RIO Summit (1992) for capacity-building in developing countries and support for the transfer of environmentally sound technologies, CITET is committed to developing Tunisian skills to ensure an environmentally sound technology transfer that is well adapted to the local, national and international context.
How is the green entrepreneurship programme contributing to the environmental, social and economic impact?

Applicants
Entrepreneurs who submitted their green business idea in order to be selected to access to the training programme.

442
Trainees
Entrepreneurs who received a 5-day intensive on-site training session along a period of 3 months in order to develop their green business models and prove their feasibility through the practical tools, exercises and tests provided by the SwitchMed methodology.

32
Coached
Entrepreneurs who received a 10 hours individual coaching in order to improve their green business models. They submitted their green business model canvas for the incubation phase/follow-up advisory service.

34
Incubated
Entrepreneurs received support from local mentors and technical experts to develop their Green Business Plan and to launch their product on the market.

1375
17%
>50 years old

25
52%
31-40 years old

3%
<20 years old

28%
41-50 years old

30%
59%
Men

24%
Women

28%
Other

30%
Organic Food & Agriculture

12%
Renewable Energy & Energy Efficiency

6%
Sustainable Building & Construction

11%
Communication for Sustainability

17%
Cleaning Products and Cosmetics

9%
Clothing and Textiles

52%
Tourism

3%
Mobility

5%
Furniture

4%
Resource Efficiency & Sustainable Waste Management

41%
Sustainable
Building &
Construction

How is the green entrepreneurship programme contributing to the environmental, social and economic impact?
Meet our Tunisian incubated green entrepreneurs

**Ferme Bio Warda**

A new revolution in Sidi Bouzid called organic farming

Leila Horchani founded ‘Ferme Bio Warda’ with the dream of introducing organic farming to her town of Sidi Bouzid, the cradle of Tunisia’s Jasmine Revolution, while reducing the use of pesticides and improving the life of rural women. With her ambition to spark a change in perception of agriculture farming systems, while boosting the local economy and preserving natural resources, she founded ‘Ferme Bio Warda’ with the support of SwitchMed, a programme that promotes responsible entrepreneurship in the region.

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

Growing up in Sidi Bouzid, I inherited a love for the land from my family. Every morning, even as a child, I would roll up my sleeves, plough our small vegetable field and tend our cattle. Nothing made me feel as happy and fulfilled as working with my hands in the field and taking care of the animals. After graduating from university with a degree in food hygiene and safety, I returned home with an idea: to improve our agricultural sector by growing organic foods. My work experience in an agricultural research laboratory consolidated my knowledge and ambition even further. Then, after losing two family members as a result of the consequences of pesticide and agrochemical misuse, I decided to take up the cause to fight against the use of chemicals and established my project. Initially, I plan to grow organic potatoes and olive and almond trees and organically raise animals, such as sheep, cattle and poultry. Later on, I will diversify to ensure food security for consumers. This method of farming also saves resources and increases the profitability of production. Promoting responsible entrepreneurship in the region is another aspect I would like to address with Ferme Bio Warda.

What is the environmental and social impact of your project?

In Tunisia, over 1,700 tonnes of obsolete, non-degradable, highly toxic pesticides are dumped into the environment. Through my project, I hope to reduce this amount by 20% over the next 10 years by expanding my activity and converting more land from conventional to organic farming. At the moment, I am growing organic vegetables on the three-hectare plot belonging to my family and I have applied for a loan to expand across another two hectares. By doing so, I will partially reverse some of the negative environmental effects created by our agricultural system and its associated impact on global warming. Overall, organic farming tends to have better soil quality and reduce soil erosion compared to their conventional counterparts. Organic agriculture generally creates less soil and water pollution, generates fewer greenhouse gas emissions and is more energy efficient. Organic agriculture is also associated with greater biodiversity of plants, animals, insects and birds, as well as genetic diversity. Also, by reducing the exposure of farm workers to pesticides and other chemicals, it makes a positive contribution to the health of farmers and the consumers.

Just in my small village, 175 rural women work in unfavourable conditions in the agricultural sector on a daily basis. Despite considerable efforts to improve working conditions in rural areas, very little has changed. Income levels are still very low, investment capacity is practically non-existent and there are many obstacles to economic growth such as lack of access to credit, land, water, means of communication and transport, new technologies and knowledge. My aim is to create positive social and economic impacts and my business will create over 100 jobs for rural women in my region, either directly or indirectly, over the next five years. Ultimately, Ferme Bio Warda is a step towards revolutionising Tunisia’s agricultural industry by supporting sustainable development, empowering local economies and giving autonomy to local farmers. In fact, I believe that organic consumption and production has many advantages, which is why I am working hard to promote it. I would like to set an example for others, especially women, and encourage the development of more and more organic agriculture farming initiatives.

How have you benefited from the SwitchMed programme?

As a result of SwitchMed’s support, I have received training on how to implement my green business, as well as coaching during the incubation phase. Among many new concepts, I have acquired valuable knowledge on the legal aspects associated with setting up a business. SwitchMed-assigned experts have also helped identify the best way to develop my business. One provided me with great advice on grants and special incentives offered by the government, such as tax incentives, as my region falls within the regional development support programme. I hope to transfer all this knowledge to my community. Another expert provided support with regard to the international certification process related to the 99/30 Ecocert standard for my organic products. Financially, I received valuable training from another expert on all the steps associated with launching a crowdfunding campaign. In my case, SwitchMed has given me the means to make my green dream come true.

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

I grew up in the northeastern Tunisian peninsula of Cap Bon, a region well-known for its agriculture. I began working as a mechanical engineer, but always had an entrepreneurial spirit. Working in and around nature, I developed a special passion for upcycling, which is the process of converting waste into usable products. For me, waste was an opportunity to innovate, create products and improve the environment. The impetus for founding W2V came in 2015, when I noticed employees at a cafeteria throwing coffee grounds in the bin. The next morning, I went back to the cafeteria to collect the fresh grounds. At home, I mixed the grounds with other organic supplements to try and produce organic fertiliser. I eventually succeeded in producing a naturally complete and biodegradable soil amendment. The product impressed neighbouring farmers, who confirmed that it was both practical and effective. That was how W2V acquired its first happy customers and identified agricultural professionals as its main target market. Most of my customers grow potatoes, lettuce, citrus fruits and leafy vegetables. The production process for my product has been already patented with INNORPI. Called Orga Ferti, the product is very rich in available primary nutrients and trace elements. It comes in 25-litre bags and gives the best yield at 5 litre/m² (5 m³/ha).

My research revealed that Tunisia consumes approximately 350,000 tonnes of chemical fertiliser each year, contributing to an annual 2% loss in soil fertility. For this reason, coffee grounds can be considered a black gold.

What is the environmental and social impact of your project?

W2V collects and recycles coffee ground waste. Some 20,000 businesses in Tunisia throw away coffee grounds. So far, 1,010 recovery points have been identified in my project area alone. We collect grounds by bike and on foot in order to minimise our carbon impact. After collecting the coffee grounds, we add in carefully selected natural additives such as algae and wood chips. The mixture is transformed into an efficient and innovative organic fertiliser that meets farmers’ fertilisation needs while preventative management of plants, insects and weeds, especially weeds, helps maintain retention and aeration. The start-up aims to reduce the harmful effects associated with chemical fertiliser use and to avoid the decomposition of coffee grounds on foot and its contribution to greenhouse gases. The 240 tonnes of Orga Ferti organic fertiliser produced yearly by W2V increases the storage capacity of carbon in soils and further reduces the production of greenhouse gases. Beyond positively impacting on the environment, Orga Ferti is cheaper than its harmful chemical equivalent. It has proven to be a valuable resource for farmers, who responded positively to it after experimental trials. Orga Ferti helps root development ensures balanced vegetative growth, improves nutrient availability and helps overcome the stress resulting from transplantation. These positive results have been confirmed by laboratory tests, which certify Orga Ferti’s effectiveness. The company plans to continue its development of agricultural sector, contribute to the fight against global warming and will create up to 15 jobs.

Waste-to-Value (W2V) aims to recycle used coffee grounds to produce naturally biodegradable fertiliser, fighting global warming while reducing the use of chemical alternatives and their negative impact on soil fertility. Mohamed Khellli is behind the project. SwitchMed has given me the means to make my green dream come true.

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**Waste-to-Value**

Coffee grounds to fight climate change

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Bio-Chèvre-Lait
The goat sector goes organic

Habib Chakhari radiates enthusiasm for his land, the region he was born in, and the animals he cares for. And he is particularly enthusiastic about Alpine goats, which he has decided to introduce in his region, with one overriding goal: to promote organic livestock raising and give added value to goat products.

His project aims to help and mentor farmers in their transition toward green agriculture and livestock raising; the result is better quality milk and meat, whether sold to producers or consumers, and helps create jobs, particularly for women.

I am very fond of this land, with its mountains, its livestock, its traditions and its authenticity. So it was natural that I would want to use my experience and knowledge to contribute to the social and economic development of Kasserine, which, because of its remoteness, is still a deprived area.

It is the goats that have enabled me to return to my origins. And not just any goats. So that my project would address simultaneously the environmental, economic and social challenges, I decided to focus on organic livestock raising because, in the typical terrain of my region and who differ from the local breeds

I am a Tunisian biotechnology engineer, a graduate from Marseille’s Institute of Technology (IMT) and have also help reduce methane and nitrogen emissions.

The excessive use of chemical pesticides and fertilisers. Organomineral fertilisers improve soil tilth and plant quality and so increase production. My project, by organising awareness campaigns for the public and special sessions for farmers, promotes organic and healthy food production and consumption in the region. It will also create jobs. In fact, in my first year of operation I will need to hire 13 employees including a general manager, a technical director, a quality manager, an administrative clerk, an accountant, a sales person, four operatives and two security guards. I expect this number to double by the third year of project expansion.

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

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Queen Luzerne
A plant with a thousand virtues to revitalise a whole region

Multiply ten-fold the benefits of a unique plant and put them to the service of the community. This was the challenge with which Abdelikrim Bessadok returned to his home region, Gabès. He sees alfalfa as a godsend for his region, a plant with many qualities that could benefit both the ecosystem and the local social and economic context.

Tell us about yourself and how the idea for your business was born?
My beginnings go back to when I started farming the land of my home region, Gabès. From being a farmer, I went on to become an agriculturist and animal fodder production, before getting my PhD in Animal Biology. I wanted to use the experience I had acquired in agri-business, agricultural production, in both the public and private sectors, to help my region. And I owe this return to my origins to a single plant: alfalfa. A plant with a thousand virtues, it is the ally of any oasis, any farmer and any livestock raiser. Growing alfalfa helps regenerate and deterify the soil and improve farm sustainability by lengthening production cycles and reducing the use of phytosanitary products. After it has been harvested and dried, it offers excellent properties for livestock raisers, with a high nutrient content that covers their animals’ phosphorus, magnesium and potassium requirements, at an affordable, competitive price. All these benefits make it a plant with almost magical powers that it is heartening to see flourish in our region.

However, I realised that alfalfa growing was very undeveloped and was sold at ridiculously low prices as a fresh product, that is, without going through any drying process and without being processed into alfalfa pellets. This means that neither the grower nor the livestock raiser gets much benefit from it. This is an enormous lost opportunity for the region’s farmers, who suffer from high unemployment rates and lost revenues, but also for the livestock raisers, who have to import the alfalfa pellets, as dried alfalfa production in the Gabès region does not cover all their needs.

With this realisation, my first idea was to encourage farmers to grow more alfalfa and implement it in the crop rotation system, growing alfalfa instead of letting the land lie fallow. The benefit of this approach is that it enables them to accelerate soil regeneration, preserve oasis ecosystems and earn extra income from the alfalfa they harvest. This was the genesis of the project for a cooperative whose goal is to federate, bring together and provide technical and financial support to the farmers who agree to commit themselves to growing alfalfa.

My project couldn’t be complete if it was limited to just planting and harvesting alfalfa. So I created a sun-drying company that can generate large volumes of alfalfa pellets, which will then be sold to local livestock raisers.

How have you benefited from the SwitchMed programme?
The SwitchMed programme’s ‘green entrepreneur’ training has equipped me with a complete kit of tools, knowledge and entrepreneurial practices. I received personalised monitoring during the incubation phase, which empowered me to develop a strong, convincing green business plan. Working on this green business plan with the experts from SwitchMed enabled me to define my main idea so that it would be realistic and achievable. The financial and legal expertise provided by SwitchMed has proved to be invaluable in giving shape to my project. For example, until recently, I had never heard about forecast operating costs and performance indicators. Lastly, SwitchMed has enabled me to find potential investors, particularly thanks to the Elevator Pitch event organised in Tunisia.

Still on the environmental aspect, local production of alfalfa pellets will enable importers to be reduced and will contribute to creating a direct link between farmers and livestock raisers.

This environmental impact is accompanied by an improvement in the social and economic situation of the region as a whole. The development of alfalfa production and its direct sale will generate additional revenue for farmers. I expect 15 direct jobs to be created for the company and about 30 new jobs in the region, with the goal being to reduce unemployment, create employment and improve social cohesion.

M2M
Energy efficiency technology is now available in Tunisia

M2M is a startup specialising in smart energy efficiency solutions. With this project, Mohamed Makki Maakij plans to rationalise energy consumption and reduce climate impact while offering an alternative to increasing energy prices in Tunisia. He has developed a real-time monitoring platform for energy management applications called ALL-SAVE, which retrieves and analyses data collected from the electricity network in order to present useful and exploitable information in a customizable web interface. Based on continuous improvements in energy consumption control, the system acts on companies’ environmental impact, strengthening overall performance and ensuring sustainable energy savings. It also reduces the amount of CO2 released into the atmosphere. In the short term, reducing companies’ environmental impact decreases wastage in materials and energy and, therefore, costs.

Elma Eco
A Tunisian entrepreneur’s water recycling system is a valid watersaving solution

Elma Eco is a phyto-purification approach to greywater treatment aimed at providing scalable domestic recycling water systems, with low operating and electricity costs and maintenance requirements. Mona Lamine launched this project in the context of the Mediteronian project of treating waste water in small, mainly coastal Tunisian villages not connected to the sanitation network. Treatment and recycling systems can save drinking water and also reduce marine pollution. Phyto-purification systems currently on the market have the disadvantage of being bulky and requiring significant implementation works and complicated maintenance. Elma Eco’s system is a novel lightweight, flexible filter configuration consisting of two interconnected vertical compartments. The compartment located at the bottom of the filter contains aquatic plants (Ottelia taxiformis) and the other compartment consists oflaterite rock, as a filling material, and aquatic plants. The system is easily installed and deployed. The risk of clogging is minimal as the system is mobile and can be moved at any time of the year.

Le Carré Traditionnel
Traditional Tunisian handicrafts pave the way for a sustainable future

Le Carré Traditionnel is a sustainable clothing startup that produces unique decorative items such as lampshades, painting boards and mirrors made from quality natural raw materials. Assma Zarkouna aims to create a national artisan artist-designer network in continuous collaboration. She believes that using recycling materials will ultimately raise awareness of industrial pollutants present in furniture items among young generations and currently among the children that participate in workshops organised by Le Carré Traditionnel. Subcontracting and long-term engagements for local workers and artisans can create jobs and contribute to reducing regional inequalities.

/8 Green Entrepreneurship
“Waste to Value aims to reduce the harmful effects associated with chemical fertiliser use and the decomposition of 240 tons of used coffee grounds in landfills. By producing yearly 240 tonnes of organic fertiliser we are reducing the emissions of CO₂ and restoring the soil fertility.”
Mohamed Khelil, Waste to Value

“My goal is to develop my current craft workshop to continue producing handmade, durable and 100% natural products establishing collaborations with other craft workshops, artisans, artists and designers.”
Assma Zarkouna, founder of Le Carré Traditionnel

“The reuse of wastewater has the major advantage of providing an alternative resource for limiting water deficits, better preserving natural resources and reducing water shortages caused by climate change.”
Mona Lamine, founder of Elma Eco

“An efficient system that rationalises the consumption of our customers will help to reduce not only their bills but also the extreme levels of global warming.”
Mohamed Makki Maalej, CIO & founder of M2M
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 Tunisia, there are 27 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
Crossbreeding and animal welfare while aiding society’s most vulnerable.

Tnagem Crossbreeding and animal welfare while aiding society’s most vulnerable. Tnagem, which means “you can” in Tunisian dialect, is a project created by the Youth Organization for the Promotion of Sustainable Development. The company aims to revive artisanal fishing techniques that are respectful of the environment, foster the relevant skills within the local fishing community and nurture the archipelago's cultural traditions.

El Mensej Giving life to old clothes while preserving expertise

El Mensej is a social company that provides support to artisans, helping them to rethink their products and better understand the needs of their customers. Mehdi Baccouche's goal is to preserve knowledge and expertise with regard to traditional weaving techniques that have remained unchanged for centuries. El Mensej breathes new life into second-hand clothing, producing socially and environmentally responsible products made from recycled materials. The raw materials are obtained from second-hand clothing, unravelling the wool to be reused in carpet weaving. This quest for protecting the environment is also reflected in the very essence of the activity, with zero water or energy consumption required for the operation of the looms, which are set up in the homes of the artisan weavers. The social company works with women weavers of Nefta, who were no longer able to make a living from their handmade products.

Mornag Eco Farm An environmentally responsible farming model

Mornag Eco Farm is an ecological farm focused on promoting the use of sustainable living techniques. Amine Draouzi organises visits for schools, volunteers and tourists throughout the year in order to share his expertise and passion for nature.

Karhbetna Tunisia’s first carpooling platform introduces passengers to their environmental footprint

Karhbetna is the first online carpooling platform in Tunisia. Wael Mohamed Soltani aims to connect individuals with drivers making the same journey at the same time. Drivers are thereby able to reduce their costs, while passengers have access to an affordable transport solution that benefits the environment.

Green Power Service A company laying the foundations of renewable energy in Tunisia

Green Power Service is a distribution, installation and consulting company that offers renewable energy solutions. Chassan Saadoun believes photovoltaic systems represent a good alternative to fossil fuel resources for Tunisia. Green Power Service builds a wide range of clean energy products, such as photovoltaics, solar water heaters and solar pumps. These green alternatives can be used instead of fuel-based ones such as oil and gas. The company covers residential, business, industrial and off-grid solutions, as well as solar pumping. Off-grid solutions offer the option of accessing electricity through an autonomous photovoltaic system.

Collectun D3E Recyclage Electronic waste recycling contributes to the circular economy in Tunisia

Collectun D3E Recyclage has been certified by the Ministry of Environment to create new products and jobs by recovering electronic waste. Ines Temimi’s company collects all sorts of electronic equipment, from computers to fax machines, mobile devices and home IT materials.

Jennen Nefzawa recycles and treats all palm tree waste in a sustainable manner. Jennen Nefzawa works to transform palm tree waste into compost to improve soil structure and productivity. Fethi Dkhil’s goal is to tackle the alarming palm waste problem being faced in the region coupled with the absence of landfill facilities.

Jennen Nefzawa A new venture is taking palm tree waste into fertilisers

Jennen Nefzawa works to transform palm tree waste into compost to improve soil structure and productivity. Fethi Dkhil’s goal is to tackle the alarming palm waste problem being faced in the region coupled with the absence of landfill facilities.
Chapter 3

Green Entrepreneurship

(1) BioIntrants Technologies, organic food & agriculture (2) KF Refuge, making bags from recycled materials (3) Green Power Service, renewable energy & energy efficiency (4) Queen Luzerne, organic food & agriculture

(5) TNAGEM, organic food & agriculture (6) Mornag Eco Farm, ecological farm (7) SICAP, green roofs (8) Namnamfood, organic food & agriculture
Over 100 Tunisian leaders identify specific measures and instruments to promote green entrepreneurship and grassroots ecological and social innovation initiatives

As part of SwitchMed’s activities in Tunisia, a meeting was organised between stakeholders involved in the green economy transition as a way to identify the main challenges faced by sustainability actors in Tunisia. The development of new, affordable and more easily accessible financing mechanisms and the simplification of administrative procedures for green entrepreneurs are, among many others, some of the specific recommendations proposed to support the implementation of sustainable development within the country. The key messages provided by these stakeholders have been included in a new White Paper, entitled, ‘The Promotion of Green Entrepreneurship and Grassroots Ecological and Social Innovations in Tunisia.’

A workshop on green economy, organised by the SwitchMed programme, with the collaboration of the Ministry of the Environment, the Regional Activity Center for Clean Consumption and Production, the Confederation of Tunisian Citizen Enterprises and International Center for Environmental Technologies in Tunisia, took place in Tunis on 23 March 2016. The event provided the 100 attending stakeholders with the opportunity to present key recommendations on the development of a green economy in the country.

The workshop forms part of Tunisia’s commitment to help reverse the effects of climate change and promote the adoption of green and circular economy. The drive to move towards this type of economy in Tunisia has received an increasing amount of support in the past seven years since the political revolution of 2011. Indeed, by 2015, the Tunisian administration had already conducted a study for the development of a national strategy for the green economy in the country. This study was actually timely in the post-revolution context, as solutions needed to be found to address many national issues such as the sharp increase in social and regional inequalities being experienced, which, in turn, was causing numerous economic, financial and environmental crises. Public sector and civil society organisations, both national and international, are now particularly interested in supporting the efforts of those actors of change seeking to develop an innovative ecosystem of sustainable consumption and production patterns in Tunisia. These efforts are focused on sustainable tourism and agriculture, energy conservation and renewable energies, forest preservation and renewal, sustainable transport, clean production and waste management.

“This is the first time that Tunisian public and private actors from many sectors have demonstrated such a clear commitment to working together,” commented General Commission for Regional Development Director, Zeineb Chemkhi.

These sectors were familiar territory for the attendees, all of which were representatives of the interdependent pillars of the green transition. As evidence of the Tunisian government’s keen interest in the matter, the Ministry of Environment and Sustainable Development, the Ministry of Vocational Training and Employment, the Ministry of Development and International Cooperation, the Agency for the Promotion of Industry and Innovation and the National Agency for Waste Management were just a few of the public institutions present. Business enterprises such as Bio-chèvre-lait, Collectum DILE Recycling, Tunisia EcoTourism and Tunisie Coop, and civil society organisations such as Pedaas, the Associative Network of Sustainable Development of the Oases, and the Tunisian-Mediterranean Association of the Environment, provided crucial hands-on experience towards developing concrete actions to support green activism and entrepreneurship. One of the most valuable contributions to this successful discussion, however, was the presence and involvement of the financial institutions. The Tunisian Solidarity Bank (BTS), one of the main loan providers for young entrepreneurs, as well as the Financing Bank of Small and Medium Enterprises (BFPME) and the Industrial Promotion and Decentralization Fund (FOPROD) presented their supporting initiatives and available funds for the promotion of green entrepreneurship. Additional valuable insights were also provided by other supporting initiatives such as, CoopMed, Fikra Program, Afrifivity-Cofundy and a number of academics. Each participant brought their own expertise and unique perspective to the table, resulting in a series of comprehensive and informed recommendations being formulated to stimulate the market for sustainable products and services.

“This pilot project responds to the priorities of the country in terms of switching to green economy,” pointed out the Head of the SCP/RAC Green Entrepreneurship and Civil Society programme, Giorgio Mosangini.

The group of participants, which included Nahli Hamdi, from the Ministry of the Environment and Sustainable Development and focal point in Tunisia and Stefano Corrado from the European Union Delegation in Tunisia, were given an overview of the current position in Tunisia with regard to the green economy by environment and sustainable development expert, Samir Meddeb. Giorgio Mosangini highlighted the efforts being made by the European Union to support all key actors in the area of sustainable consumption and production in Tunisia and throughout the Mediterranean through its funding of the SwitchMed programme.

“This programme aims to support the transition towards sustainable consumption and production through the promotion of social and ecological innovations by establishing a ‘green network’ for the benefit of entrepreneurs,” said the Head of the European Union Delegation in Tunisia, Stefano Corrado.

In fact, Tunisian green entrepreneurs and civil society organisations have both benefited from the support and capacity building provided by SwitchMed and its local partners. In the same context, Mosangini announced the publication of a national white paper, which will highlight the recommendations made by the stakeholders during the event and integrate the conclusions of the in-depth interviews conducted with stakeholders prior to the workshop.

After a series of presentations showcasing the experiences of green entrepreneurship and eco-innovation initiatives, setting out a global vision for the Ecosystem of Green Entrepreneurship and Social Eco-Innovation in Tunisia, the participants formed five groups which worked to come up with recommendations to be submitted in the form of advocacy.

“Despite the rich diversity of the ecosystem there is a lack of dialogue and cooperation between the different actors, especially between public actors, entrepreneurs and financing professionals,” stressed the founder of the Waste to Value start-up, Mohamed Khellil.

The Working Groups first focused on the challenges faced by the green entrepreneurs and social eco-innovation initiatives that represent a driving force in this transition to a green economy. Access to financing was highlighted as one of those challenges. In fact, some testimonies revealed that the range of financing options currently available do not adequately correspond to the needs of Tunisian green entrepreneurs. Group discussions also concluded that business professionals had a limited understanding of the fundraising possibilities for green SMEs and entrepreneurship.

The working groups then went on to discuss the potential links and synergies between the different actors in the green ecosystem. They were thus able to elaborate on public and private support for a more inclusive and decentralised approach. The moderators subsequently asked the participants to suggest a limited number of recommendations for the priority actions to be considered in order to overcome these difficulties. At the end of this synergy workshop, each group representative put forward their proposals. Recommendations concerning the alleviation of the conditions for granting tax incentives and public funding and pairing them with professional support, as well as the development of crowdfunding schemes were echoed across all the presentations, underlining the common challenges faced by the participants. Other outputs included the simplification of administrative procedures with less bureaucracy and more transparency, and the creation of a national platform to present an overview of the green ecosystem.

To conclude, SwitchMed’s implementing partner for green entrepreneurship and civil society initiatives, the Regional Activity Centre for Sustainable Consumption and Production, has produced a national report to summarise the common trends identified during the Synergy Workshop, conducted in the eight countries participating in the SwitchMed programme. This regional report provides evidence of the need, identified by country, for sustainable support for capacity building and technical support to encourage environmental and social enterprises in the Mediterranean.
The White Paper on “Promotion of Green Entrepreneurship and Grassroots Ecological and Social Innovations in Tunisia” highlights the strengths and weaknesses of the Tunisian green entrepreneurship ecosystem, in order to reveal the areas and axes where the needs for action are greatest. It summarises 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 on 23rd March 2016 in Tunis, which brought together over 100 key actors from nearly 60 different organisations. The document is available only in French for the moment.
Empowerment of civil society organisations and citizens to lead innovative solutions addressing environmental and social challenges.
At SwitchMed we support community-based social eco-innovation ini-
tiatives to maximise their influence and impact, thereby contributing
to the emergence of more sustainable models of consumption and pro-
duction. 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 de-
velop 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 compo-
nent of the training is the module dedicated to analyse in depth the is-
issues to tackle at 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 grass-
roots initiatives and develop a SWOT analysis. On average, 20 commu-
nity 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 sup-
porting phase of the programme to receive further coaching and techni-
cal 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 ex-
perts 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, in local trainers selected and 8 local partners were selected and
trained on-site for the implementation of the training programme. Out
of the 370 candidates who submitted an application to take part in the
national workshops to train civil society initiatives, 160 people were se-
lected and trained belonging to 80 different initiatives. In the end, 14
initiatives among those participating in the workshops are selected to
attend the workshop. They are responsible for facilitating the four-day
national workshop with the support and guidance of SwitchMed’s Civil Society Empowerment team. After that, the best two initiatives among those participating in the workshop are selected to receive further technical support. Local trainers therefore participate in the multi-stakeholder selection process of the best two initiatives. In addition, they provide 50 hours of individual “coaching” support to one initiative for the development of a “Support Plan” to identify the techni-
cal requirements needed to properly develop and implement the initia-
tive over a six- to twelve-month period.

Supporting eco and social grassroots innovations

Meet our local partners

Laboratory of Social and Solidarity Economy (LAB’ESS)

It is a social innovation space dedicated to the creation and develop-
ment of self-employment in Tunisia. Focused on the emergence of so-
cial entrepreneurs, LAB’ESS defines itself as a collaborative incubator
designed to create a favourable space for entrepreneurs to venture,
innovate and share. The LAB’ESS project was launched in 2013 and
is supported by Development Without Borders, an association of the
SOS GROUP, the leading social enterprise in France. LAB’ESS works
to strengthen the capacities of Tunisian associations and promoters
of social entrepreneurship projects through counselling, training and
networking.

Our local partner selected by the SCP/RAC is an organisation with ex-
tensive knowledge of the current situation in Algeria in relation to civil
society organisations, social movements and empowered communities
in line with SCP and ecological and social innovation, as well as expe-
rience in organising and managing workshops. The main task of the lo-
cal partners is to assist the SCP/RAC in identifying and selecting local
trainers as well as potential grassroots initiatives to join our training
programme.

Our local partners, carefully selected by the SCP/RAC, have extensive
experience in initiating, implementing and evaluating environmentally
and socially innovative projects, as well as a broad understanding and
knowledge of training methodologies based on empowerment, collec-
tive learning and the participative approach. At SwitchMed, they ac-
tively participate in the regional co-creation workshop alongside other
local trainers from all the participating countries. They also support the
local partner organisation from their own country and the SCP/RAC
in identifying grassroots initiatives and guaranteeing the participation
of at least 20 social eco-innovation actors or initiatives in the national
workshop. This also includes providing support by disseminating the
call through the available channels in order to attract potential actors
and initiatives to attend the workshop. They are responsible for facili-
tating a four-day national workshop with the support and guidance of
SwitchMed’s Civil Society Empowerment team. After that, the best two
initiatives among those participating in the workshop are selected to
receive further technical support. Local trainers therefore participate in
the multi-stakeholder selection process of the best two initiatives. In
addition, they provide 50 hours of individual “coaching” support to one
initiative for the development of a “Support Plan” to identify the techni-
cal requirements needed to properly develop and implement the initia-
tive over a six- to twelve-month period.
Civil society organisations are empowered to act as agents of change and to start community innovations

Promoting craftsmanship: Carré traditionnel Wealth creation
To preserve the crafts of the different regions of Tunisia.
The project aims to promote and sell handicrafts via an e-commerce platform and contribute to fairer trade for artisans.

Raw earth architecture: De terre et d’argile Sustainable tourism
To introduce raw earth architecture to communities, promoting respect for the environment and rediscovery of ancestral techniques.
The project aims to convey raw earth architecture know-how to communities and demonstrate the benefits of ancient construction techniques through workshops.

Stopover for rural dwellers Social inclusion
To reduce the isolation of Tunisians from interior regions travelling to Tunis and to improve their reception.
The project aims to provide a multifunctional space in downtown Tunis to accommodate people coming from interior regions during the day.

Sakiet Sidi Youssef goes green: Dar Elmouma Sustainable agriculture
To contribute to the economic insertion of rural women and youth through small income-generating activities while raising awareness of healthy nutrition.
The project aims to create vegetable gardens and a small unit for the transformation and sale of local agricultural crops in Sakiet Sidi Youssef.

Bir Salah switches to organic Sustainable agriculture
To fight climate changes in Bir Salah by promoting environmentally friendly agriculture.
The project aims to train local farmers in Bir Salah in organic farming and to plant specific trees that will produce a material exploitable by local women.

Establishing a permaculture network Waste management and sustainable agriculture
To build awareness of the need to protect the submarine eco-system in the Bay of Melloula-Tabarka.
The project aims to establish underwater educational trails in the Bay of Melloula-Tabarka that make sustainable use of resources in collaboration with local inhabitants.

Educating our youth: Debbo 52 Culture
To promote cultural and artistic training in a green space in a popular district in Tunis.
The project aims to develop a creation and co-working space for artistic projects by young people living in underprivileged areas.

Organic dates in Zaafra oasis: SNAM Bio Dattes Waste management and sustainable agriculture
To promote organic farming practices among oasis farmers and preserve biodiversity.
The project aims to support the creation of a small producers’ group for organic dates in Zaafra oasis and promote and sell their produce.

Elmouna Sustainable Managment Waste management and sustainable agriculture
Fairer trade for artisans.
The project aims to establish a permaculture network and promote the concept of sustainable agriculture in Tunisia.

For the children of the Medina: Twiza Education
To contribute to reducing social exclusion through cultural and artistic education for children.
The project aims to encourage creativity, freedom of expression and artistic production through the sharing of skills with children of the Medina of Tunis.

Ecotourism in Ain Draham: Dar el ain Sustainable tourism
To develop ecotourism in Ain Draham that reconciles inclusive economic development of the region and protection of its environmental heritage.
The project aims to promote sustainable tourism and appreciation of the region by creating circuits of accommodation and tours that create job opportunities for locals.

Dive sustainably: Ecomel Sustainable tourism
To raise awareness of the need to protect the submarine eco-system in the Bay of Melloula-Tabarka.
The project aims to establish underwater educational trails in the Bay of Melloula-Tabarka that make sustainable use of resources in collaboration with local inhabitants.

Gluten-free food is an option: Tunisian Association against Celiac Disease Sustainable agriculture
To build awareness of the need to protect the submarine eco-system.
The project aims to raise awareness of celiac disease, to develop gluten-free cookbooks and inaugurate a gluten-free bakery in Djerba.

Entrepreneurs cooperative: Tunis’Actif Business diversity and inclusion
To reduce problems faced by young entrepreneurs, especially isolation and lack of material and human resources.
The project aims to create a cooperative of entrepreneurs in Tunis, provide them with training in entrepreneurship and equip them with information on legal and financial schemes for start-ups.

9) Bike and earn money: Pedalo Sustainable transportation
The mission is to involve young athletes and unemployed cyclists in sustainable transportation, ensuring their social integration while respecting the environment.
The project aims to set up the first and only fast, reliable bike courier service in Tunisia.

8) Sustainable Transport
The project aims to promote the sale of e-bikes and support their sales by developing a new distribution channel for their products in Tunisia.

7) Sustainable Tourism
The project aims to promote fair trade and support the sales of rural women’s handicrafts.

6) Sustainable Agriculture
The project aims to promote and sell rural handicrafts via an e-commerce platform and contribute to fairer trade for artisans.

5) Sustainable Waste management
The project aims to provide a multifunctional space in downtown Tunis to accommodate people coming from interior regions during the day.

4) Sustainable Community
The project aims to convey raw earth architecture know-how to communities and demonstrate the benefits of ancient construction techniques through workshops.

3) Sustainable Social Inclusion
The project aims to reduce the isolation of Tunisians from interior regions travelling to Tunis and to improve their reception.

2) Sustainable Natural Resources
To contribute to the economic insertion of rural women and youth through small income-generating activities while raising awareness of healthy nutrition.

1) Sustainable Cultural Heritage
To build awareness of the need to protect the submarine eco-system in the Bay of Melloula-Tabarka.

Chapter 4
Civil Society Organisations empowerment

Applicants
Grassroots initiatives’ representatives submitted 138 applications, 15 of which were shortlisted.

Trainees
Grassroots initiatives received training at the national level. Some of these activities included how to develop an idea for social eco-innovation, obtaining strategy advice, finding out what the grassroots initiatives need and how to overcome challenges, using the ideas of other participants to identify innovative solutions, identifying solutions for improving governance, and developing business plans with other partners in highly participative discussion sessions.

Selected
The 15 grassroots initiatives selected were enrolled in a supporting phase. They received 50 hours of personal coaching, external technical support tailored to their needs and support to develop a crowdfunding campaign.

Sector
Sustainable Agriculture 22%
Sustainable Tourism 22%
Valorisation Wealth 7%
Social Inclusion 7%
Education 7%
Businesses 7%
Diversification & Sustainable Management 14%

Gender
Men 45%
Women 55%

Table 4.1
Number of applications by gender

<table>
<thead>
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<th>Gender</th>
<th>Number of Applications</th>
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<tbody>
<tr>
<td>Men</td>
<td>70</td>
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<tr>
<td>Women</td>
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</table>

Table 4.2
Number of applications by sector

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<th>Sector</th>
<th>Number of Applications</th>
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</thead>
<tbody>
<tr>
<td>Sustainable Agriculture</td>
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</tr>
<tr>
<td>Sustainable Tourism</td>
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</tr>
<tr>
<td>Valorisation Wealth</td>
<td>10</td>
</tr>
<tr>
<td>Social Inclusion</td>
<td>10</td>
</tr>
<tr>
<td>Education</td>
<td>10</td>
</tr>
<tr>
<td>Businesses</td>
<td>10</td>
</tr>
<tr>
<td>Diversification &amp; Sustainable Management</td>
<td>19</td>
</tr>
</tbody>
</table>
Meet our Tunisian civil society organisations supported

A bike-delivery company tackling pollution and unemployment

In Tunisia, opportunities for cyclists interested in combining their passion for cycling with earning a living are non-existent. Traffic and traffic jams do not facilitate business trips during the working day and the existing range of courier services do not promote the development of win-win initiatives. Pedalo has spotted a gap in the market which aims to satisfy the increasing demand for messengers and delivery people in the Tunis area and the need to shift towards more sustainable methods of transport in cities.

With around 1.8 million cars on the roads in Tunisia, it comes as no surprise that all the country’s major cities suffer with traffic problems at all hours of the day and night. The number of cars is estimated to double over the next five years, with the Grand Tunis area set to be particularly affected by the resulting rising levels of pollution. Adnen Ben Haji, founder of Pedalo, saw a business opportunity with the creation of a bicycle delivery network, based on two main principles: “The primary focus is to reduce the impact of pollution in urban areas, but it is also a way for young people to earn an income,” explains Adnen.

“My interest in sustainable mobility began in earnest when I was on holiday in Montreal back in 2007. I came across a bicycle courier company called 911 Corriers, and spent a whole day with them, giving me the chance to see how they were operating. Ever since then, I have wanted to create a company like 911 Corriers in Tunis, but I had neither the means nor the knowledge or the support.” Since then, Adnen Ben Haji, who studied at the Tunis Business School and has a degree in Management, specialising in marketing, new technologies and global business, started working hard to make Pedalo a reality.

Pedalo combines multiples missions, as it represents a social co-working space and a bike-delivery company that tackles pollution and unemployment. The initiative aims to combat youth unemployment, while encouraging them to lead more sustainable lifestyles. Pedalo also works to raise awareness among its clients. “Whatever the reason a customer is booking our service, whether it’s to order a pizza or drop off a dress at the dry cleaner’s before it closes, we believe that the bike is the best way to do it, as an ideal delivery method for all sorts of products, and therefore sustainable mobility forms the heart of my business,” Adnen stresses, going on to add, “It is important to change our mindsets regarding urban mobility. Our clients are very pleased with this green delivery alternative and more and more are acknowledging that more bike deliveries mean having to use less motor vehicles which leads to a healthier environment.”

Pedalo currently operates in Greater Tunis. In addition to not having any cycle paths, another challenge for couriers who ride 20 kilometres per day is the fact that roads are not tailored to cycling. “The infrastructure doesn’t help as there are almost no bike lanes but it’s better than making the trip by car with traffic,” says Adnen. “One aspect of SwitchMed’s support phase that was particularly useful was the help we received with defining our economic model,” says Adnen, before adding that Pedalo is currently housed and incubated at El Space, a strategy suggested by his SwitchMed local mentor. “SwitchMed has provided us with support in terms of business planning development, market research, community management and awareness about sustainable transport in Tunisia,” stresses Adnen.

“The infrastructure doesn’t help, but it’s better than making the trip by car with traffic.”
Adnen Ben Haji, Pedalo

The need for a technological solution to manage orders, bike messengers and clients is of tremendous importance. “We clearly needed technical support, thus one of the external experts funded by SwitchMed gave us help with developing a website and mobile application. With that, on the one hand, customers can book a service online and track the delivery status in real time and, on the other, bike messengers can accept services from clients through the mobile application and contact them easily. We are going to launch the website and the mobile application in the very near future,” says Adnen.

Most social enterprises fail because they lack the expertise to build a strong brand and communicate their impact. “That is why I’m so grateful for the advice we’ve received from SwitchMed experts with regard to communication. It’s fantastic to now have a new marketing strategy that we will be implementing in the next couple of weeks.”

Pedalo currently employs five members of staff and is expecting to recruit an extensive community of bike messengers in 2019. Adnen and his team are evaluating the possibility of franchising Pedalo to replicate their experience in other cities, such as Sfax, the economic capital of Tunisia, as well as Sousse. “Sometimes I also think about changing and moving to a solidarity cooperative model in which couriers are partners. That is a model that could be particularly suited to rural areas and thus contribute to the integration of young Tunisians within the working world,” he explains. Pedalo is also looking for new collaborations. “There is a new food delivery company launching in Tunis and we are thinking about collaborating with them to capitalise on each company’s strengths in a coordinated manner,” explains Adnen.

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Enabling **access to finance** for green start-ups and entrepreneurs by mobilising impact investment: The Switchers Fund
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 SwitchersFund’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 SwitchersFund, 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 Moroccan investors.

The Agency for the Promotion of Industry and Innovation

It is a public network of services for entrepreneurs and enterprises that identifies the best green initiatives, encourages them and provides them with the necessary support to grow and attain their goals. The agency’s nationwide network and experience in access to finance enables it to reach out to a large number of green entrepreneurs, potential investors and business support organisations and provide services for the benefit of the green economy sector in Tunisia.
Access to finance capacity building programme for green entrepreneurs

40 candidates who applied to join the capacity-building programme.

9 green entrepreneurs who attended the capacity-building programme.

7 green entrepreneurs selected to pitch during “Green start-ups meet investors,” 18 January 2018.

30h capacity-building for green entrepreneurs, who are guided through the stages of the investment process, to prepare their businesses for evaluation by financial players and improve their communications skills for more effective promotion of their business idea.

71% of green entrepreneurs were approached by potential investors during and after the “Green start-ups meet investors” event.

30 financial actors identified in Tunisia.

14 representatives of banks, guarantee funds, business angels and venture capital attended the “Green start-ups meet investors” event as potential investors.

9 investors interested in projects.

40,000€, the amount of potential investment raised by Tunisian green entrepreneurs.

110,000€, loans granted as a result of the meeting.

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

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Chapter 5: Enabling access to finance
The impact of the SwitchersFund OSCE GEMS Award in Tunisia: Interview with Gian-Luca Gasparini

Gian-Luca Gasparini’s profile:
Gian-Luca Gasparini holds a Bachelors in International Relations and a first-level master’s in Global Economics & Social Affairs. Has worked for the Italian Ministry of Foreign Affairs during the Italian Presidency of the Council of the EU, the Rabat and Khartoum Processes and the ASEM 2014 Summit. In 2015 he started working for SEFEA Consulting in the Projects Department, providing support to the consultancy services and project management offered by the company, which focuses on supporting ethical finance and the social economy in Europe and beyond.

As one of The SwitchersFund Award’s partners, could you tell us what made FEBEA decide to collaborate with this initiative?
The SwitchersFund emerged step by step by working with SwitchMed and talking to relevant stakeholders in the MENA, who highlighted the need to provide not only funding but also technical assistance to entrepreneurs and start-ups. They fit very well.

As a SwitchersFund partner, could you tell us why FEBEA decided to collaborate with this initiative?
The SwitchersFund emerged, step by step, by working with SwitchMed and talking to relevant MENA region stakeholders, who highlighted the need to provide not only funding but also technical assistance to entrepreneurs and start-ups. They fit very well.

The SwitchersFund Awardaims to be the first step for green entrepreneurs who need access to finance. It is also helpful to prove that green entrepreneurship can be an economically viable way of dealing with social and environmental challenges in the MENA region.

To be eligible for this Award, what criteria were considered?
We took into account the innovative component of the project, as well as its social and environmental impact and its economic sustainability.

Was it difficult to select the finalists?
It was hard because we received many interesting applications that fulfilled the selection criteria. We decided to first create a shortlist and then contacted those on the shortlist for further more detailed information such as how they would envision spending the grant.

Tunisia was one of the eligible countries for the 2014 SWITCHMED Meeting (ASEM) summit in 2014. Since 2015 he has worked as Secretariat Officer for the European Society for Ethical and Alternative Finance (SEFEA) Consulting, an investment branch of FEBEA, supporting ethical finance and the social economy in Europe and beyond.

Which are the main sectors that investors are most interested in?
That is a tough question, as green entrepreneurship is still a new concept for investors in the MENA region. However, there are some urgent problems, for instance, water scarcity. The Mediterranean Basin is one of the world’s regions most vulnerable to climate changes, as well as a region highly impacted by human water demand. I think investors need to direct their attention to green projects that provide solutions for this issue.

Everyone needs water!
Yes, and energy. I would say that water management, sustainable energy and waste management are the three greatest challenges that financiers should address when investing in Mediterranean green projects.

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Connecting objects, big data and artificial intelligence solutions to rethink energy consumption

Mohamed Makki Maalej’s profile:
Mohamed Makki Maalej, Software and Telecommunications Engineer graduated from the Private Higher School of Engineering and Technology (ESPRI) in Tunisia. He has actively participated in several entrepreneurship competitions and has won several awards nationally and internationally, such as Venturewell in March 2016 in Tunisia, the Bigbooster in October 2016 held in France, and Green Africa Booster Innovation Awards, in July 2017 in Morocco. He won as well the first place in the SwitchMed’s Green Elevator Pitch in 2018.

M2M is a Tunisian company that developed Allsave, a real-time monitoring platform for energy management applications. This platform retrieves and analyses the data collected from the electrical network and presents it as useful and exploitable information via a customisable web interface. Mohamed Makki, the winner of the SwitchMed Elevator Pitch, asserts that his platform will deliver continuous improvement in terms of consumption control and improved energy rationalisation for companies.

How did you hear about SwitchMed and the Elevator Pitch?
My SwitchMed adventure began in June 2015 when I participated in the Green Entrepreneurs Training Programme in Tunisia, which was not only a success but also helped me with breaking into the social and entrepreneurship field and the development of the Allsave product for my company, M2M.

What did you gain from participating in the Elevator Pitch?
It was helpful on many levels because not only did it give me an opportunity to practice pitching my company’s product, but also gave me a better understanding of the steps involved in the investment process. I realised that I didn’t know how to convince an investor to put money in my project, so the training offered by SwitchMed before my presentation really helped with improving my communication skills.

Being able to successfully explain your business idea is key.
Yes, and even more importantly, the training programme altered my vision and approach so that now the focus is on selling a concept that will be profitable for my clients rather than on selling a product. I think that was the main lesson I learnt from this experience.

So, would you say that SwitchMed helped you to better understand your business?
Yes, actually, after my investors meeting, I found I became better at validating my business model, and I understood the need to stress the energy savings provided through M2M’s activities.

What kind of customer can benefit from your platform?
All the M2M products and services, including Allsave, are intended for industrial companies and tertiary sectors, such as clinics, airports and local authorities.

And how do they benefit?
All those companies improve their environmental performance as a result of controlling their consumption. Thanks to the Allsave platform, customers are able to monitor the energy consumption of each machine and each device they own, which could contribute to strengthening their overall performance. And, in case of a fault, the system alerts the customer thanks to an artificial intelligence system based on the deep learning of the consumption behaviour of each machine.

Do you have specific annual goals regarding environmental impacts, such as the amount of energy saved or number of beneficiaries?
Our overall impact goal is the reduction of the rate of CO$_2$ release into the atmosphere. Thanks to the recommendations and corrections required by Allsave Artificial Intelligence, our customers have access to an ongoing source of data regarding the performance of their plants. By reducing their energy consumption by more than 30%, the environmental impact is also automatically reduced, which is calculated from the greenhouse gas emissions unit toe (tonne oil equivalent). By reducing current consumption by 10% to 30%, a company can also reduce its waste of energy materials and, therefore, costs in the short term, contributing to reducing the environmental impact. During the first pilot phase, M2M plans to sign contracts with five customers that are large energy consumers. Our goal for the next three years is to apply our solution to more than 100 national and international companies.

“...”

The Switchers Fund

Join now and contribute to the first MENA impact investing Fund.
Despite the relative abundance of banks in Tunisia, green entrepreneurs do not have many options to finance their start-ups. Nevertheless, in the current process of change in the country, new entrepreneurship programmes, incubators and venture capital funds are emerging, and international actors are likely to be attracted by the opportunities offered by green entrepreneurship in Tunisia.

Despite its large number of banks, Tunisia still offers very few funding opportunities for SMEs and start-ups, and especially for green entrepreneurs. Banks tend to be risk-averse and funding is a slow and bureaucratic process that requires a high level of guarantee. However, it is essential to know what tools exist and to understand the current process of change in Tunisia. New funds, incubators and entrepreneurship support programmes are likely to develop nationally, and the emerging opportunities could attract international actors.

But what interest might financing institutions in Tunisia have in terms of investing in co-innovative businesses and initiatives created by green entrepreneurs? In order to find out, in June 2016, a delegation from SwitchMed travelled to Tunisia to meet different key actors, including governmental and financing institutions (the Ministry of Environment, the Ministry of Industry and Finance, the World Bank, Carthage Business Angels) as well as many green entrepreneurs from the SwitchMed community.

The mission reported that only a few initiatives developed by non-commercial banking institutions concerning the green economy were identified. Furthermore, entrepreneurs did not seem to be aware of these initiatives. The findings started with an overview of the Tunisian economy, which is quite advanced and diversified compared to other economies in the region, but largely dependent on natural resources, whose depletion and degradation, added to the pressure of production activities, are an obstacle to economic and social development. Nevertheless, and even though the current political climate in Tunisia is relatively unstable, the transition toward a green economy in Tunisia is relatively stable, the transition toward a green economy in Tunisia is relatively stable,

“We suggest using a combination of different types of financing (equity, investment loans, working capital) along the lifetime of a start-up company, to greatly increase their chances of success.”

Fethi Cherni, Product Manager of the Enda Tamweel credit institution

The report concluded that while this is one of the roles of SwitchMed, it also needs to become a policy priority for the Tunisian government and a vector of innovation for Tunisian entrepreneurs and civil society.

To increase their investment readiness and be more bankable, initiatives with high growth potential can make use of existing mechanisms to support SME growth, such as incubators, and coaching programmes like Businessendre. Even though the current offer is limited, those who know the expectations of investors, particularly highly innovative SMEs, can qualify for early-stage venture capital investment.

The existence of several small venture capital funds in Tunisia dedicated to SMEs and small companies (which do not necessarily need to be bi-tech or IT-based) represents an exciting opportunity to be explored by Tunisian green entrepreneurs. Besides, the current legal framework attracts local investors to venture capital, thanks to existing tax breaks for this kind of investment.

Regarding future green entrepreneurs trained and supported by SwitchMed, there are no specific financial solutions readily available in Tunisia that can respond to their needs as new-start-up companies with varying degrees of growth potential in a myriad of different sectors. For those who have established companies, as already qualified Switchers with a particular track record, bank loans may be an option. While Tunisian banks are generally said to be very conservative, bureaucratic and slow, some loan products are available for green entrepreneurs; for example, the Solidarity Bank of Tunisia offers loans that seem to be well adapted to start-ups and existing guarantee schemes for SMEs. For green entrepreneurs who have the patience and financial resilience, it is indeed worth trying. Naturally, there may also be green initiatives that, because of their educational or experimental nature, do not initially qualify for private financing.

Future green entrepreneurs need to be aware of the financing options available and the differences and advantages of each tool. Investors and banks represent different opportunities as they look for different things regarding growth, ownership, risk and future obligations. Considering this, the development of a specific and dedicated financing instrument would seem to be the best option to develop green entrepreneurship in the future in Tunisia. Having access to such an instrument would provide the space to grow and to build the track record that would allow an initiative to qualify for regular bank finance. A financial product called Credit Vert, launched by the Solidarity Bank of Tunisia and specifically addressing green businesses, has to date invested 300,000 euros, for an average of 20,000 euros per project. The World Bank is also creating a fifty-million-dollar fund, to be managed by the Tunisian government, to finance local entrepreneurs with a Tunisian quality label.

A number of institutions, including the European Bank for Reconstruction and Development, do not finance start-ups or green businesses unless there is a solid sponsor for the project. Moreover, regarding the Tunisian ecosystem, the report has explained that “there are some other problems the country faces such as corruption, lack of transparency of their structures and lack of banks capacity to analyse the risk of small business.” Other problems, such as bureaucracy, regulatory hurdles and overly restrictive microcredit financing brackets, also exist. As Medji Kilani, CEO of Shams Technology, expressed it: “Tunisia enjoys a good geographical position which can provide many opportunities for entrepreneurship. However, it is difficult to find credit, due to a rigid financial system and the collateral that is asked in return for the loan. A heavy bureaucracy does not help the situation.”

The green economy in Tunisia is potentially a crucial source of jobs and must consider developing in the context of a multi-dimensional, integrated vision that takes into account limited natural resources and a necessary improvement in industrial competitiveness. The lessons learned from current experiences should be enhanced and strengthened within the framework of the national strategy for the economy, still under preparation. For example, recycling and recovery of solid waste constitute a potentially important but largely unexploited market; for example, the potential of electrical and electronic waste is estimated at around 75,000 tonnes per year. In other areas, like wastewater treatment and renewable energy, sustained efforts are needed to encourage participation by the private sector, particularly in facilitating access to funding and technology. To upgrade the business environment, companies need to increase their awareness of the benefits of integrating green and social values in their business model. The World Bank has also highlighted the lack of communication and coordination between the different elements in the economic system in Tunisia, the lack of impact on reducing poverty and the low interest in building associations. To mitigate such issues, awareness raising is paramount. The Tunisian Association of Capital Investors (ATIC) has stated that while accelerators are starting to emerge, there is a lack of incubators and of business angels, the fiscal system is overly rigid and the survival rate of enterprises is very low.

“Tunisia enjoys a good geographical position which can provide many opportunities for entrepreneurship. However, it is difficult to find credit, due to a rigid financial system and the collateral that is asked in return for the loan. A heavy bureaucracy does not help the situation.”

Medji Kilani, CEO of Shams Technology

It can be concluded that the existing offer is still rather limited and will leave many new green entrepreneurs behind, particularly small initiatives or less innovative ones, which may need more funding than just a microloan: they do not meet the growth expectations of venture capital funds and are too young for banks to consider them. According to Fethi Cherni, Product Manager of the Enda Tamweel credit institution: “We suggest using a combination of different types of financing (equity, investment loans, working capital, loans, working capital) along the lifetime of a start-up company, to greatly increase their chances of success.”

To reduce risk in green entrepreneurship, technical assistance is essential. This was a comment by Mohamed Kaaniche, General Director of the Solidarity Bank of Tunisia, who further remarked the importance of collaboration between his organisation and other organisms such as the United Nations Industrial Development Organisation, the United Nations Office for Project Services, the Tunisian Confederation of Citizens Enterprises and the Ministry of Employment, adding that “in this sense, a collaboration with SwitchMed could be interesting, especially in the long term.”

Finally, one of the keys to developing the green entrepreneurship sector in Tunisia is to work on establishing the overall potential of the green economy market in terms of number of projects, total investment required, possible returns and job creation. This would allow a greater number of financial actors and entrepreneurs to be mobilised in this sector.
Stepping up internationalisation of SMEs on green business models and resource efficiency in the Southern Mediterranean.
Enabling conducive technologies and frameworks for green businesses

Small and medium-sized enterprises (SMEs) play a key role in national economies around the world and provide a significant contribution in employment generation and added value to the economy. Therefore, increasing the internationalisation SMEs and helping them to access new markets, and thus, becoming drivers of a green economy, is crucial, not only for the businesses but also for the economy in the Southern Mediterranean.

At SwitchMed, we recognize how important it is to engage and exchange best practices and solutions on innovations that can further the uptake of SCP in existing businesses models. For this reason, we support the development of networks that can create business partnerships between European companies and SMEs in the Southern Mediterranean in order to promote the uptake of green business models and eco innovations that can strengthen productivity, deliver a more inclusive growth and assist SMEs in the Southern Mediterranean.

To increase the cooperation between businesses and innovation networks in Europe, UNIDO together with local institutional partners, organized six B2B for eco-innovation events in Egypt, Lebanon, Morocco, and Tunisia. 36 selected eco-innovative business solutions were presented at the B2B events where local businesses could get in touch with the latest eco-innovations for their sector. The eco-innovations had been selected from a pool of relevant and ready for market uptake solutions developed under the framework of EU “Eco Innovation Programme”, “Best Life Environment”, the “European Business Award”, and innovation Seed initiative. All in all, 725 local businesses attended the six B2B events to have 315 business to business consultations with providers of eco-innovations from the European Union. As a result of these consultations, 6 business partnerships were concluded during the months following the B2B activities resulting in technology cooperation agreements; skill transfer and innovation research collaboration have been enabled across several industrial sectors such as textile, food, waste and wastewater management, wood and furniture, constructions, leather, plastic, agriculture. Preliminary investments in eco-innovative technologies concluded to 1.4 million euros and with the potential of totally saving valuable resources, such as 8,432,860 m³ in annual water consumption. The B2B events have displayed the need and potential for eco-innovations in the region and that cooperation between businesses from the EU and the Southern Mediterranean is an attractive bid for the environment as well as for the economy.

Pilot studies for the Product Environmental Footprint framework

Developing the potential of SMEs to participate and reap the benefits of a global and green economy, will also depend to a great degree on enabling framework conditions that can ensure a healthy competition. For instance, the EU single market is one of the most important trading partners for businesses in the Southern Mediterranean region, and every new regulation on this market will eventually also affect businesses ability of producing and exporting goods that are standing in compliance to these market regulations. One example of such a regulation, which might also affect Southern Mediterranean producers, is the EU single Market for Green Products initiative. This initiative envisages a labelling scheme that will require the provision of meaningful and verified information from producers about the environmental footprint of products to the consumer. Based on the Product Environmental Footprint (PEF) assessment, the EU single market for green products initiative is currently evaluating how producers of environmentally friendly products, in Europe, and in other regions, are currently performing and what criteria needs to be applied for certain product categories in order to label a product “green”.

Starting in 2017, UNIDO invited relevant partners in Egypt, Lebanon, Morocco and Tunisia, such as, industrial associations and export oriented enterprises, to take part in local organized PEF workshops. The workshops were organized to present the outcomes of the European pilot studies related to the PEF framework development, to inform industry stakeholders on the methodology, and to find suitable businesses from four sectors which could undertake a pilot PEF study in order to see how this new framework would work in the region and the specific sector. The selected sectors for these studies are related to the product category of wines, intermediate paper products, pasta and olive oil, and were selected on the basis of an existing PEF category rules and their financial value in the national exports to the EU and consequently the importance of this sector to the national economy. The selection process was done in this way to ensure not only the interest of the export oriented industries but also the potential for replication in the national or regional context later on, based on the capacity built during the project.

A high interest from local companies was noted and nine companies were selected for the implementation of the PEF on a specific product that they export or plan to export in the EU. Their motivation to participate in this activity, even though the PEF category rules were not yet final at that point, was mainly based on the need to understand their products environmental footprint and the potential for improvement. For each company product, one local expert has been assigned to implement the PEF category rules, after receiving an in-depth training from the international PEF experts from PRe Sustainability, a consultancy based in the Netherlands involved in their development. These experts now form the core which can respond to future demands from the industries that wish to have the PEF category rules implemented on their products.

The studies developed demonstrated the need for national Life Cycle Assessment (LCA) databases which can be used by the LCA and PEF experts. Hopefully, this will be addressed in the near future, enabling the companies and experts in the region to optimize the production faster and much more accurately. In addition, national partners in Egypt, Lebanon, Morocco and Tunisia were assisted in raising awareness among national stakeholders about the framework for a Single Market for Green Products initiative, contributing to the adoption of greener standards for the national manufacturing businesses in order to compete on equivalent terms in the EU market.
Applying eco-innovations can become a strategic success factor for denim produced in Tunisia

How a textile producer in Tunisia improved his business and environmental performance by investing in eco-innovative technologies that will save water and costs.

Producing denim requires a lot of water. Throughout the various supply chains one pair of jeans can alone consume up to 10,000 litres of water in the production drawing resources from all over the world. This contributes to the fact that the textile industry has established itself to become the second most polluting industry in the world. But the textile sector is also an important contributor to job creation and growth, especially for emerging economies such as Tunisia, where textile goods make 29% of the country’s total export. The consumer preferences from these markets have increasingly moved in favour towards more environmentally responsible produced denim, which have stimulated jeans producers to look for more environmentally friendly production techniques.

The company decided to join the SwitchMed MED TEST II project to identify measures in the production that could improve the economic and environmental performance of the jeans production. It was also in this process that thanks to the SwitchMed B2B networking events for eco-innovation, New Amico got in contact with Jeanologia – a Spanish technology provider, with more than 20 years of experience, focused on the development of sustainable and efficient technologies for fabric and garment finishing. Technology from Jeanologia, had been selected by UNIDO for the SwitchMed series of B2B networking events in Tunisia, Morocco and Egypt, with the objective of promoting business partnership between eco-innovation providers from the EU and industries in the MENA region.

With the support from the EU, Jeanologia has developed the E-flow Nano-bubbles, a new technology for garment finishing processes that can treat garments and apply different chemicals like softeners, resins for wrinkle-free treatments, dyes, etc., without using hundreds of litres of water. The new process is based on transferring chemical properties to fibres using Micro-Nano Bubbles (MNB) that can get directly inside the fabric, reduces the consumption of water by 85%, electricity by 47%, chemicals by 50%, and it eliminates the waste and wastewater treatment associated with chemical and water usage because of its zero discharge process. In combination with the Ozone G2 system and the laser treatment technologies from Jeanologia, the eco-innovative process modified the denim production process to do two things: improve the quality of the end product, and save water (85%).

New Amico is a Tunisian producer of jeans – part of the Demco Group – and is specialized in washing, dyeing and applying special treatments to denim. Similar to many other Tunisian textile producers, jeans from New Amico are primarily produced for export markets such as the EU. The consumer preferences from these markets have increasingly moved in favour towards more environmentally responsible produced denim, which have stimulated jeans producers to look for more environmentally friendly production techniques.

The meetings during the SwitchMed matchmaking with Jeanologia, made New Amico aware that investing in the eco-innovation would not only give the business valuable saving in energy, water, and raw material costs, but also give the final product a competitive advantage for the export market.

“The impact of such technologies at national level, would have an important impact in water consumption: considering Tunisia's production of denim, which is equal to about 26 million pieces per year. It can be estimated that the Jeanologia eco-innovative solutions would find a wide adoption in the Tunisian textile sector, a total of 2.2 Mio m³ of water savings can be achieved, which equivalent to the annual water consumption of 7,160 Tunisian households.” Bouguila Jelloul, Director General – New Amico

“Thanks to the event organized by UNIDO in 2016 we were introduced to the new technologies and developments by Jeanologia. The different processes that we use today using this new technology gives us different options for reduction like 70% of water savings and 20%-30% energy savings and 80% chemical reduction due to the pulverization process. So we could save more than 135,000 Euros in total and this helps us to become more competitive”. Bouguila Jelloul, Director General – New Amico

Due to the SwitchMed B2B networking event, New Amico has introduced both the G2 ozone-washer (2 machines) and the E-flow Nano-bubbles technology (3 machines) investing 300,000 euros in total. The economic benefits of these solutions, which allow a quick return on investment while guaranteeing a better quality of end products, would have significant impact if they were adopted throughout Tunisia’s denim industry. According to Amel Boujnah and Ahlem Jerb, the Water Treatment Managers of the DEMCO Group, the adoption of “E-flow” technology has led to an optimization of the production process as well as significant economic and environmental benefits in relation to traditional systems: in addition to reducing by half the wash cycle, this technology saves huge quantities of water, resin and energy and eliminates the use of chemicals in the different finishing treatments. In the case of G2 ozone-washer, this technology eliminates the water use (80 litres by piece) and replaces bleach and permanganate substances with ozone. In addition to this, the drying process takes 15 minutes instead of 45 minutes of the traditional water-washing process, which increases the productivity of the plant.

“Our mission at Jeanologia is to offer the denim industry an ecological, eco sustainable and efficient system at the industrial level. We offer this technology to our clients on a global level. We should thank UNIDO who helped us transfer this new concept to new markets in North Africa like Tunisia and Morocco where UNIDO has organized B2B events between local industries and which has helped further these concepts”. Stefano Tesserolo, Jeanologia
### Promoting eco-innovative solutions from the EU for Tunisian SMEs

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Licensing Type</th>
<th>Investment</th>
<th>Sector</th>
<th>Environmental Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO AZUL</td>
<td>Technology</td>
<td>6500€</td>
<td>Agro-food</td>
<td>2,628 m³/year water, 632 tonnes CO₂</td>
</tr>
<tr>
<td>ABCO</td>
<td>Technology</td>
<td>300,000€</td>
<td>Wood and furniture</td>
<td>30,000 m³/year of local wood, 1,700 m³/year water, 5 GWh saved</td>
</tr>
<tr>
<td>JEANOLOGIA</td>
<td>Technology</td>
<td>300,000€</td>
<td>Textile and garments</td>
<td>28,532 m³/year water, 150 Kg/year chemicals, 3,011 GWh/year</td>
</tr>
<tr>
<td>WDE-MASPELL</td>
<td>Technology</td>
<td>300,000€</td>
<td>Wood and furniture</td>
<td>30,000 m³/year of local wood, 1,700 m³/year water, 5 GWh saved</td>
</tr>
<tr>
<td>VAN MAREN SYSTEMS</td>
<td>Agreement</td>
<td>10% royalties on turnover</td>
<td>Plastic</td>
<td>9.45 Mio kg of plastic to be reused</td>
</tr>
</tbody>
</table>

#### Key Statistics
- Number of registered participants (EU and MENA): 257
- EU companies attendees: 17
- Number of face to face meetings between the EU technology providers and the MENA companies: 135
- Projects concluded and under negotiation (April 2018): 4
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 “extending, 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 an 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 current strategic partners are:

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.
The SwitchMed Programme is implemented by the United Nations Industrial Development Organisation (UNIDO), UN Environment Mediterranean Action Plan (UN Environment/MAP), Regional Activity Centre for Sustainable Consumption and Production (SCP/RAC) and UN Environment’s Economy Division.

This publication has been produced with the assistance of the European Union.

The content of this publication is the sole responsibility of SwitchMed and can in no way be taken to reflect the views of the European Union.

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The SwitchMed Networking Facility, is hosted by the Regional Activity Centre for Sustainable Consumption and Production (SCP/RAC).

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