



RENEWABLE ENERGY SOLUTIONS
FOR THE MEDITERRANEAN

RES4MED

Renewable Energy Solutions for the Mediterranean

Building a med energy bridge, a call for public - private efforts for RE/EE

Roberto Vigotti
Giovanna Gentile

April 2016

- 1. Association profile**
- 2. RES in the MENA Region**
- 3. RES4MED operational model**

ANNEX– RES4MED members

Back up – Res4Africa special project

1. Association profile

Renewable Energy Solutions for the Mediterranean is a not for profit association created in 2012 with the mission **to contribute to the deployment of renewable energies in Mediterranean region**, both large scale and distributed energy, facilitating their integration in domestic and regional markets **to satisfy local energy needs**

Strategy

- **Platform for public-private dialogue** on renewable energy issues in the Mediterranean in light of the partnerships with selected international stakeholders
- **Advisor and facilitator** to regional institutions, local Governments and regulatory bodies
- **Awareness and institutional advocacy** through dialogue with Southern and Eastern Mediterranean countries (SEMCs) governments and regulators
- **Capacity building and training**, disseminating best-practices and procedures on RES regulation, policies, standardization, operation

Membership

- Network of leading **utilities, industries, TSO, agencies, technical service providers and academia**, actively engaged in the Southern and Eastern Mediterranean Countries (SEMCs)
- **Involvement of financial actors** within a Stakeholders Committee aiming at providing advice, sharing analysis, market intelligence

RES4MED members and partners

RES4MED CORE MEMBERS



SOUTHERN MED PARTNERS



REGIONAL NETWORK



Policy and regulation

- Engagement with regional institutions and national stakeholders to assess **mitigation measures to de-risk investments**
- Organization of high level dialogue conferences and country specific workshops, **"RES4MED Days"**, to strengthen institutional relations and investment friendly framework

Training and capacity building

- **Advanced Training Course "Integration of renewable energy sources in the Mediterranean electricity markets"**
- **Training Course "Enhancing energy efficiency solutions in the Mediterranean"** to disseminate best practices and applications

Business models and financing

- **Survey on investment risks in renewable energy** in Southern and Eastern Mediterranean Countries (SEMCs)
- Enhancing **public-private dialogue** by promoting supporting activities on **innovative business models and financing**, disseminating the best practices in the region

Socio-economic benefits

- Supporting the analysis on **socio-economic benefits of RE investments**
- **Evaluation of RE impacts along the value chain in economic and social terms**, as guidance for policy makers, local stakeholders and institutions

RES4MED Association

Main success stories in 2013/2016

✓ RES4MED Annual Conference

Cyclical high-level annual conferences dedicated to specific RE items or key markets

2015 - Delivering Renewable Energy Investments in Egypt: Challenges and Opportunities

2014 - Delivering Renewable Energy Investments in Morocco: Challenges and Opportunities

2013 - RE solutions within the Mediterranean electricity market

✓ RES4MED Day

One-day high level workshop fostering the dialogue between key local stakeholders and RES4MED members

2016 - RES4MED Day Morocco

2015 - RES4MED Day Egypt

2014 - RES4MED Day Morocco

✓ Advanced Training Course "*Integration of renewable energy sources in the Mediterranean electricity markets*"

Target audience of professionals from Southern and Eastern Mediterranean countries (SEMCs), young professionals from RES4MED members and Ph.D. students from Italian Universities

2015 - 2nd Edition - 53 middle manager, of which 27 from SEMCs, 21 from RES4MED members and 5 PhD students

2014 - 1st Edition - 35 middle manager, of which 15 from SEMCs, 10 from RES4MED members and 15 Ph.D. students

✓ International relations

2016 - Signed MoU with SIE

2015 - Signed MoU with Sonelgaz

2014 - Strong cooperation with MEDREG, MEDTSO, UfM, IRENA, OME

2014 / 2013 - Signed 3 MoU with RCREEE, OME, MEDREC

2. RES4MED operational model

Operational model RES4MED

Effectiveness in the Mediterranean



Market Observatory

- Forum where to find **the most up-to-date news** about RE and EE in the Southern and Eastern Mediterranean markets
- **Monitoring information** and filtering it accordingly, collecting only contents that really matter to companies and presenting it in an easy and accessible manner
- **News and articles are uploaded on a daily basis**, ensuring that the general structure and quality of the information remains intact through regular reviews

18 Jan 2016

Algeria adds 268 MWp of solar power in 2015
 By marketobservatory | Solar PV, Algeria, Projects & Industry, Market & Finance | 0 Comment
 Posted on SeeNews Renewables on 18 January 2016 Fourteen photovoltaic (PV) power plants with a combined capacity of 268 MWp have started operation

17 Jan 2016

New low for wind energy costs: Morocco tender averages \$US30/MWh
 By marketobservatory | Wind, Morocco, FIT & Tenders | 0 Comment
 Posted on Renew Economy on 17 January 2016 The north African country of

18 Jan 2016

TAQA ready to break ground on 140 MW wind farm in Morocco
 By marketobservatory | Wind, Morocco, Projects & Industry | 0 Comment
 Posted on Seenews Renewables on 18 January 2016 Moroccan power company TAQA Morocco, owned by Abu Dhabi National Energy Co (ABD.TAQA), on Friday said it will soon start construction of a 140 MW wind farm near Tanger. Having secured all permits needed to operate as independent power producer (IPP) under the 13-09 law on renewable energy,

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OBSERVATORY**

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20 Jan 2016

New expo to promote energy efficiency
 By marketobservatory | Energy Efficiency | 0 Comments
 Posted on Gulf News on 19 January 2016 Abu Dhabi: Energy Efficiency Expo, a new exhibition to connect industry experts to promote energy efficiency in the building, transportation and manufacturing sectors, will be organised alongside the World Future Energy Summit in 2017, it was announced today during the Abu Dhabi Sustainability Week. The expo will become an

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Projects & Industry

Financing

M&A & Partnerships

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WORLD FUTURE ENERGY SUMMIT
 PART OF ABU DHABI SUSTAINABILITY WEEK 2016

MENA region to attract \$35bn renewable energy investment

New low for wind energy costs: Morocco tender averages \$US30/MWh

Country profiling

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ANNEX 1 - FIT PROCESS FOR PROJECTS >500 KW

ANNEX 2 - LIST OF COMPANIES IN THE LAND

ALLOCATION PHASE OF FIT PROCESS

**Available on
RES4MED website**

NEXT ISSUE end of April: Morocco



Local high level conferences and Italian events



RES4MED DAY: One-day local workshop fostering the dialogue between local stakeholders and RES4MED's members to generate a deeper understanding of local needs and propose a set of solutions to match them



Morocco, Rabat (Sept 2014)/(Mar 2016)



Egypt, Cairo (Sept 2015)



**Conference
(May 2014)**



**Conference
(Apr 2015)**



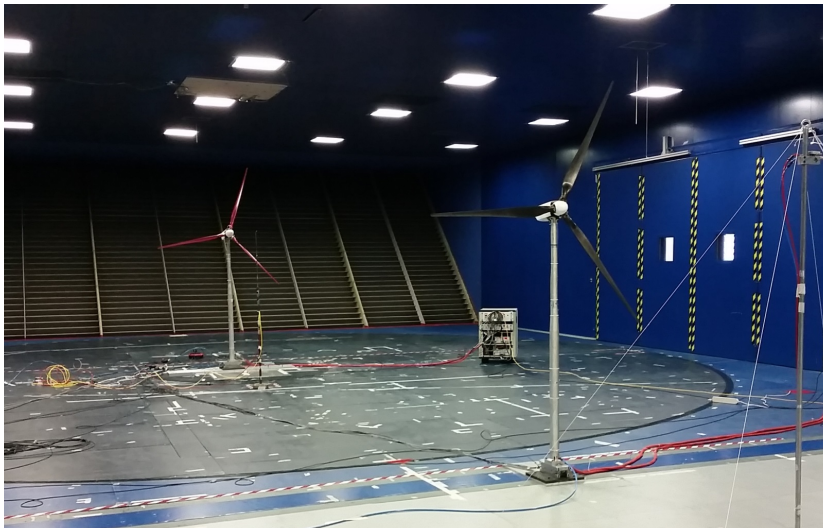
**Università Commerciale
Luigi Bocconi**

**Conference
(Jun 2015)**



Advanced Training Course

- Aimed to create a **network of skilled people** and to strengthen the dialogue between public and private sector
- Integration between **academia and industry point of view**
- Not only frontal lessons but **site visits to Italian power plants/laboratories**
- Creation of a **Community platform** for facilitating networking
- Openness and **sharing of materials** and openness of materials



Wind Tunnel – Politecnico di Milano

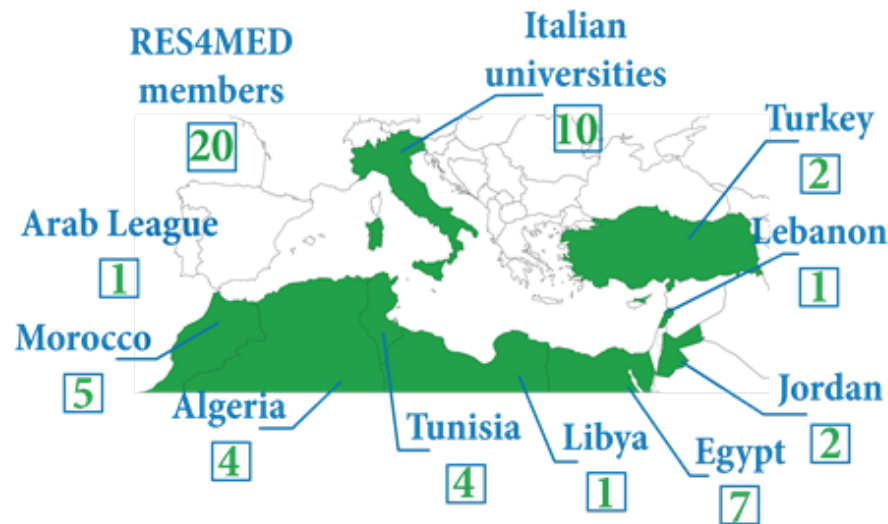
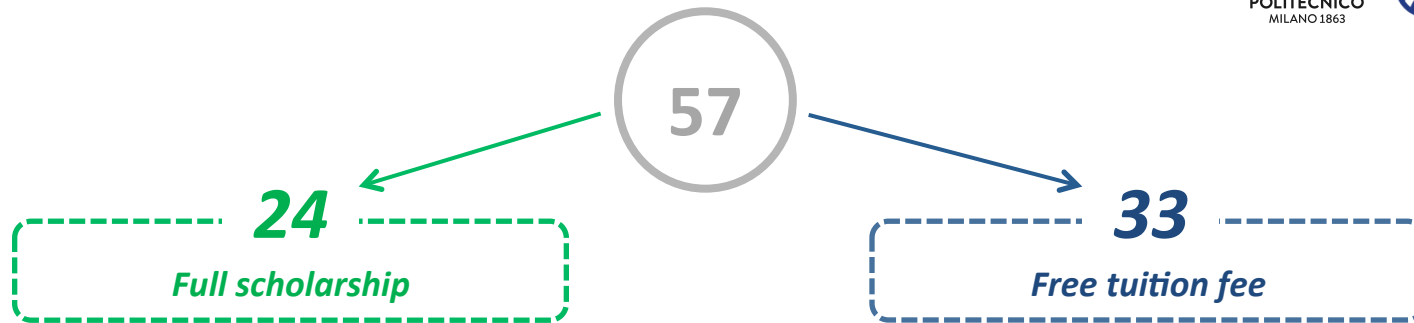


General trends in the world energy field and the role of renewables (Paolo Frankl)



PV power plant – Asja

Advanced Training Course 2015



57 participants

27 middle managers from SEMCs, 10 PhD students, 20 professionals from RESMED members

Energy Efficiency Training Course 2016

RES4MED, in partnership with **Asja** and **Iren** and in cooperation with **Politecnico di Torino** and **OME**, organizes the training course “**Enhancing energy efficiency solutions in the Mediterranean Region**” on **May 16th - 20th 2016**

Lectures on technical, regulatory and financial issues given by qualified experts, academics and visits to innovative laboratories and facilities

Objectives

- Strengthen the capacities of the key stakeholders and decision makers to develop effectively energy efficiency programs
- Fostering Public Private Partnership (PPP) to generate a positive climate for opportunities and investments

Target audience

The target audience consists of at least **35** professionals:

- 10 professionals from **Southern and Eastern Mediterranean** countries
- 5 professionals from **Balkan** countries
- 10 professionals from **RES4MED members**
- 10 Ph.D. students and Researchers from **Italian Universities**

Survey 2016 on the main barriers to RE investments in MENA countries

- **Rating the main risks** related to the investments and the main barriers for the specific target market
- **Identifying risks which are commonly perceived** as hampering factors for developing RE investments
- Defining the scope of a wider analysis bringing to **risk mitigation solutions** and policy recommendations



A total of about **65** Executives from **5** Countries

- **44%** Professional Services
- **42%** Industrial players
- **14%** Financial players

**Results to be discussed in the RES4MED Annual Conference
to be held in Rome on May 19th 2016**

Study 2016 on Integration of Renewable Generation in the National Electric System of Algeria

The study, ongoing, is performed by RES4MED, CESI, EnelGreenPower experts, in dialogue with Sonelgaz and CREG

Objective

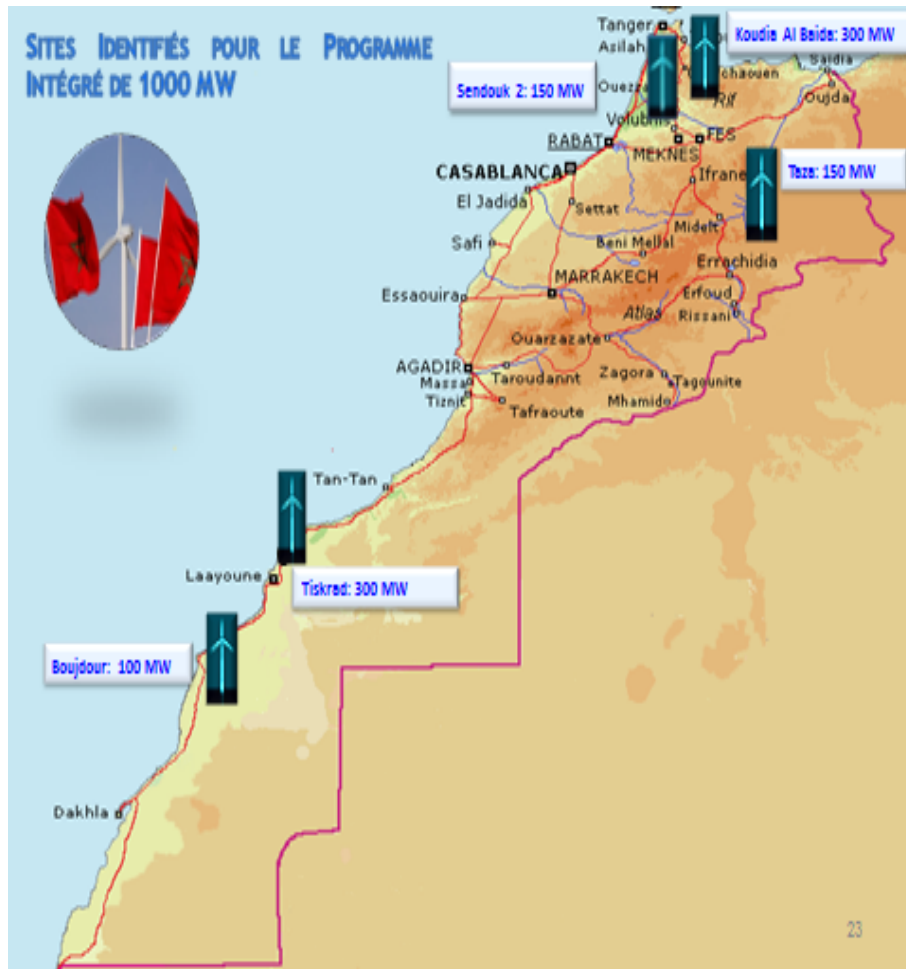
- Provide an **assessment of the maximum amount of non-dispatchable renewable generation** that is possible **to install in Algeria**, ensuring the reliability, integrity and efficiency of the power system
- **Execute reliability and market based analyses to assess the benefits** for the Algerian system due to the integration of the new renewable generation and the impact they will have on the cost of energy
- **Evaluate the adequacy of the transmission and sub-transmission systems** to transport the power generated by the new power plants to the identified local and regional demand centers

Time schedule

- Completion within 2016 3Q

Study 2015 on Socio-economic effects of large scale RE developments in MENA - Case Study of the Moroccan Wind Program

The study was conducted by **RCREEE** and coordinated by **RES4MED**



Key elements

- **Socio-economic enhancement initiatives** per community/location
- **Strategic conversation** with local stakeholders
- **Integrated approach** incorporating location specific conditions, technology value chain characteristics

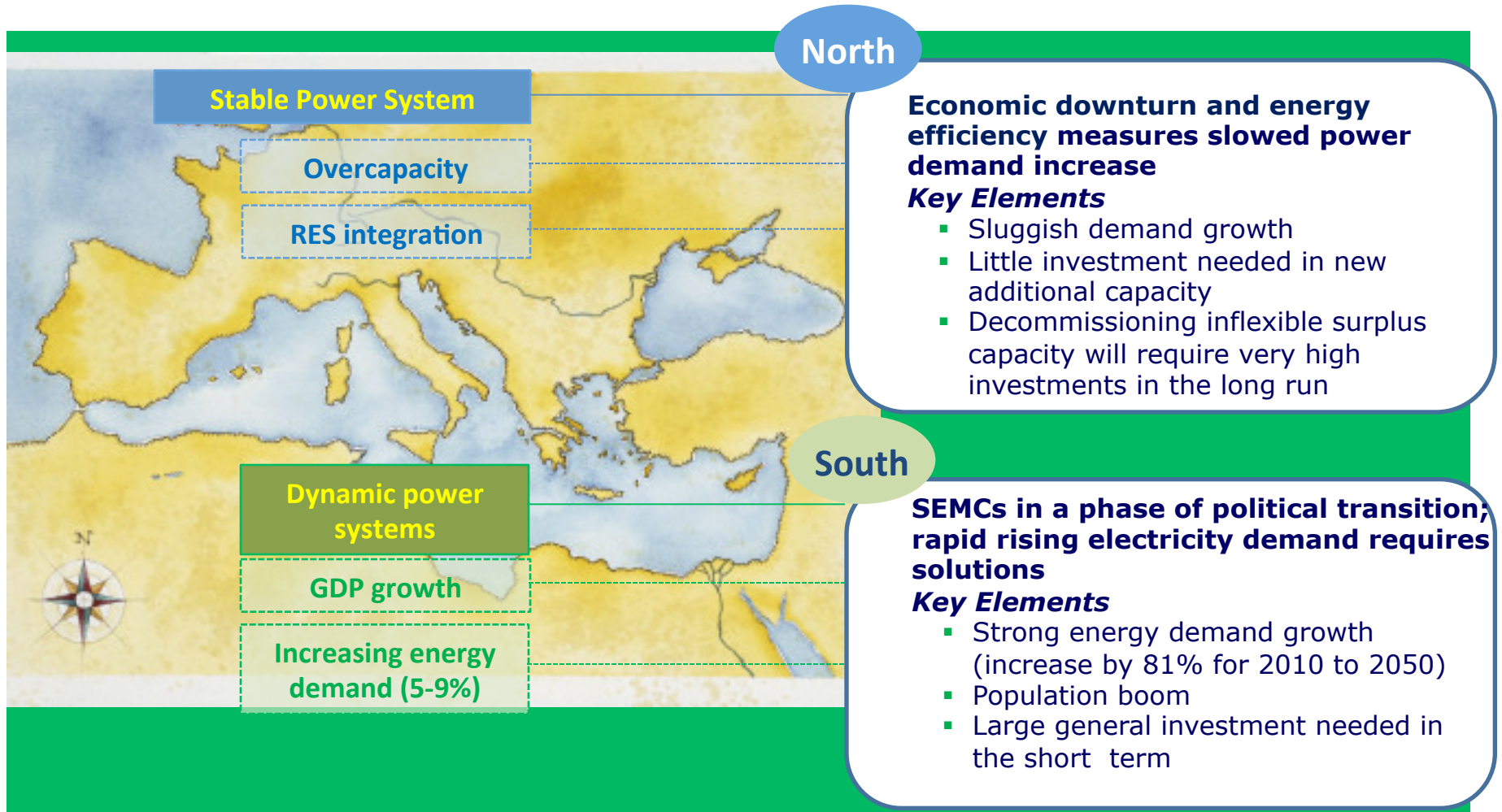
Objectives

- Gain deeper understanding of the associated **socio-economic impacts** from large scale wind power projects **on local communities** specific to the wind program of Morocco

3. RES in the MENA Region

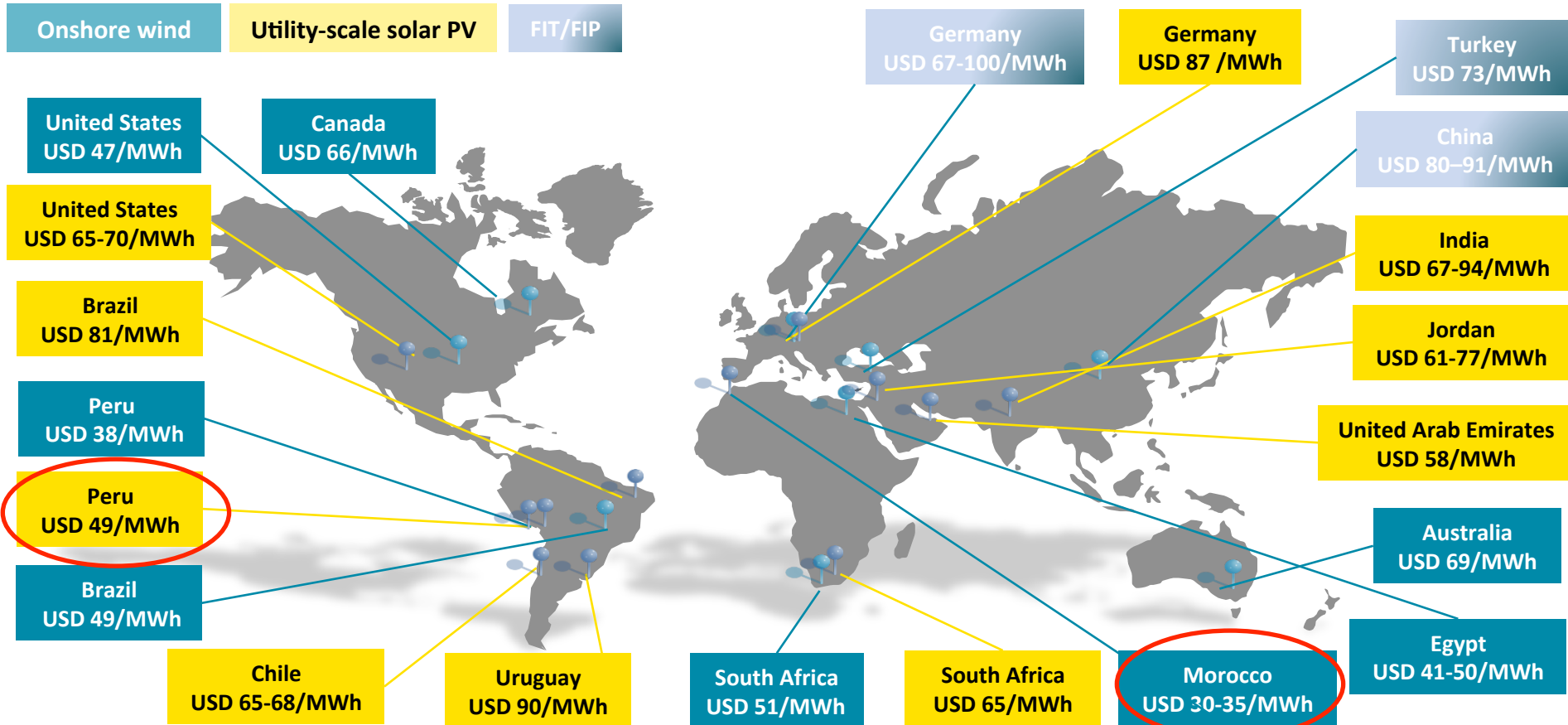
The Mediterranean energy context

The **two shores of the Mediterranean Sea** will have to respond to **different sets of challenges**



Wind and Solar PV prices declining

Recent announced long-term contract prices for new renewable power to be commissioned over 2016-2019



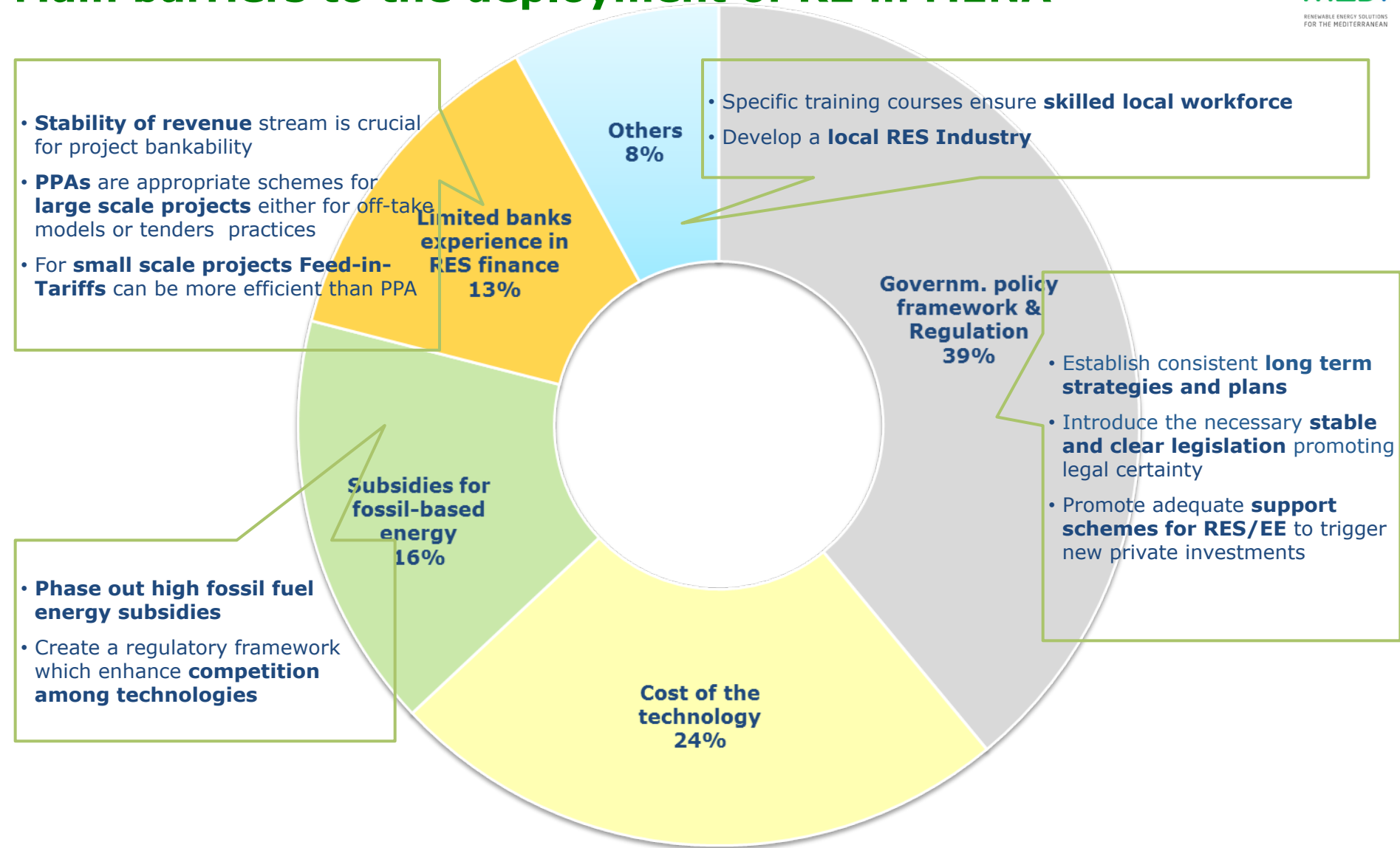
This map is without prejudice to the status or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area

Note: Values reported in nominal USD includes preferred bidders, PPAs or FITs. US values are calculated excluding tax credits. Delivery date and costs may be different than those reported at the time of the auction.

Best results occur where price competition, long-term contracts and good resource availability are combined

Industrial perspective to address RES growth

Main barriers to the deployment of RE in MENA



- **Governments can address directly most of the key identified barriers.**
- **The RE industry is reducing Capex and O&M costs, and in dialogue with institutions proposes business models, jobs and local value chain, training**

A policy paradigm shift is key to attract financing in renewables

before 2014

2015-2020

Providing financial support

Main Policy



Cost reduction

Enabling policy and market framework + reducing financing costs

Cost reduction through

- Technology development
- Scale up
- Learning

Cost reduction through

- **Technology innovation**
- **Financial innovation**
- **New markets** with best resources

Key characteristics

Regulation & Market Design

- Competition
- Predictable long-term income streams
- Short-term market value signals

System Approach

- RE portfolio
- Energy System Integration

Level playing field

- Carbon pricing
- Phase out of fossil fuel subsidies

Policy and regulations

Policy and Regulation

to create a business-friendly environment is the pre-requisite for RE deployment.

1. to encourage **clear, consistent and visible long-term strategies** that define the proper incentives for both producers and consumers and provide the necessary guarantees for investors;
2. to promote the adoption of instruments aiming at **assessing the socio-economic benefits** generated by investments in renewable energy projects in terms of jobs creation and enhancement of competitiveness;
3. to endorse "**Euro-Mediterranean**" **partnership** aimed at stimulating and enhancing the development of specific activities related to local supply chain and contributing to increase employment rates;
4. to promote supporting mechanisms - both institutional and financing - addressing **jobs creation and training programs**.

Public private partnership

Public-Private Partnership

to implement national programs for achieving renewable energy targets

1. to encourage the setting-up of **partnership formulas** (e.g. Business Forum, Industry Board, etc.) aiming at providing decision makers with the viewpoint of the private sector;
2. to **stimulate investment opportunities** along the entire supply chain through networking activities among market operators, industry associations and other key stakeholders;
3. to promote **innovative business models** and to facilitate the implementation of demonstration and sustainable renewable energy projects;
4. to promote incentive mechanisms intended to **enhance local industrial capacity and enterprise culture**, to realize industrial districts and innovation technology centers.

Training and capacity building

Training and Capacity building

to contribute to local economic and social development and to create the best conditions for attracting investments

1. to promote **training programs** focusing on the workforce to create jobs that meet industrial local needs;
2. to facilitate the **dialogue and the exchange of experiences** between professionals coming from regulatory, financing and industrial contexts;
3. to support actions aimed at strengthening the **institutional and administrative capacity**, defined as the ability of institutions to define objectives and create the best conditions to achieve those objectives;
4. to promote **empowerment mechanisms** for tertiary education and vocational training, aimed at facilitating knowledge transfer.

Thanks for your attention!

Contact details

RES4MED – RES4Africa
via Ticino, 14
00198 Rome - Italy
Tel. +39 06 8552236
secretariat@res4med.org
www.res4med.org
www.res4africa.org

Back up

RES4Africa

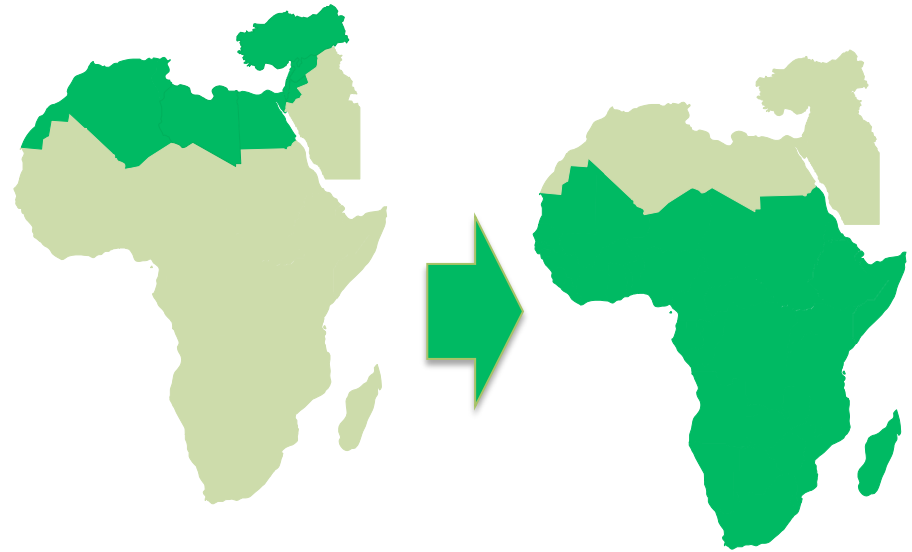
*The new strategic project
within RES4MED*



Can we transfer our operating model to Subsaharian Africa?

We observe **same priority sectors**:

- **Energy security**
diversification and infrastructure
- **RE and energy efficiency**
- **Institutional capacity**
- **Scaling up investment**
- **Energy Access**



We observe **similar rationale and motivations** of on going key Initiatives like the Africa EU Energy Partnership:



- RE is **key to increasing access** to sustainable energy service
- RE represents **opportunity for industrial growth and jobs**
- RE is **already happening in Africa** –support of public sector to investments
- The way forward: **involving stakeholders at local level**

Policy and regulation

- to promote a level-playing field for RE reflecting actual market driven costs
- to encourage the introduction of the necessary legislation to allow RES independent power producers (IPPs) growth
- to promote proper remunerations schemes for RE investments and legal certainty)

Infrastructures

- to promote grid infrastructures expansion and renewal
- to promote integration of RE in the electricity systems
- to promote private participation in infrastructures investments

Financing and business models

- to encourage fair bidding conditions for competitive tenders for PPAs
- to promote the inclusion of dedicated financing facilities in the tenders
- to endorse involvement of IFIs, directly or indirectly through local banks financing programs

Socio-economic benefits

- to promote the adoption of instruments aiming at assessing the socio-economic benefits of RE investments
- to increase project origination in African countries by promoting the role of domestic developers
- to promote independent certification of local companies for services, systems and components

Training and capacity building

- to promote training programs focusing on the workforce to create jobs that meet industrial local needs
- to support actions aimed at strengthening the institutional and administrative capacity
- to promote empowerment mechanisms for vocational training, aimed at facilitating knowledge transfer

Launch of RES4Africa project

RES4MED Annual Conference



Annual Conference RES4MED

ENHANCING INVESTMENTS FOR CLEAN TECH SOLUTIONS, BEYOND MENA TOWARDS AFRICA: CHALLENGES AND OPPORTUNITIES

19th May 2016

Auditorium Enel S.p.A., viale Regina Margherita 125, Rome

Public and private sector stakeholders from the Euro-MENA region and Sub-Saharan Africa to discuss lessons learned and identify remaining gaps, challenges and emerging issues on a smooth deployment of renewables beyond MENA and towards Africa.

The Conference will follow **two key events** dedicated to Africa whose outcomes will be presented at the opening session:



1. African Europe Energy Partnership (AEEP) II Stakeholders Forum, to be held in Milan on May 16th and 17th 2016



*Ministero degli Affari Esteri
e della Cooperazione Internazionale*

2. Ministerial Conference Italy – Africa, to be held in Rome on May 18th 2016

Launch of RES4Africa project

AEEP institutional engagement



In the framework of **African EU Energy Partnership (AEEP)** to be held in Milan on **May 16th - 17th 2016**, AEEP has asked RES4MED to:

- Organize jointly with RECP (*African-EU Renewable Energy Cooperation Programme*) and EU-TAF (*EU-Technical Assistance Facility*) the Business matchmaking session
- Propose and support some selected private sector investors and other participants to the forum
- Launch RES4Africa initiative program

Enhancing investments for clean tech solutions

Beyond Mena towards Africa: challenges and opportunities

Rome , May 19th 2016 | 9:00 am - 16:30 pm
Enel Auditorium | Viale Regina Margherita, 125
by invitation only

Public and private sector stakeholders from the Euro-MENA region and Sub-Saharan Africa to discuss lessons learned and identify remaining gaps, challenges and emerging issues on a smooth deployment of renewables.

Beyond MENA and towards Africa: launch of the Project” RES4Africa”.

RES4MED Survey on “Derisking investments in MENA” to be presented and discussed.



Under the patronage of *

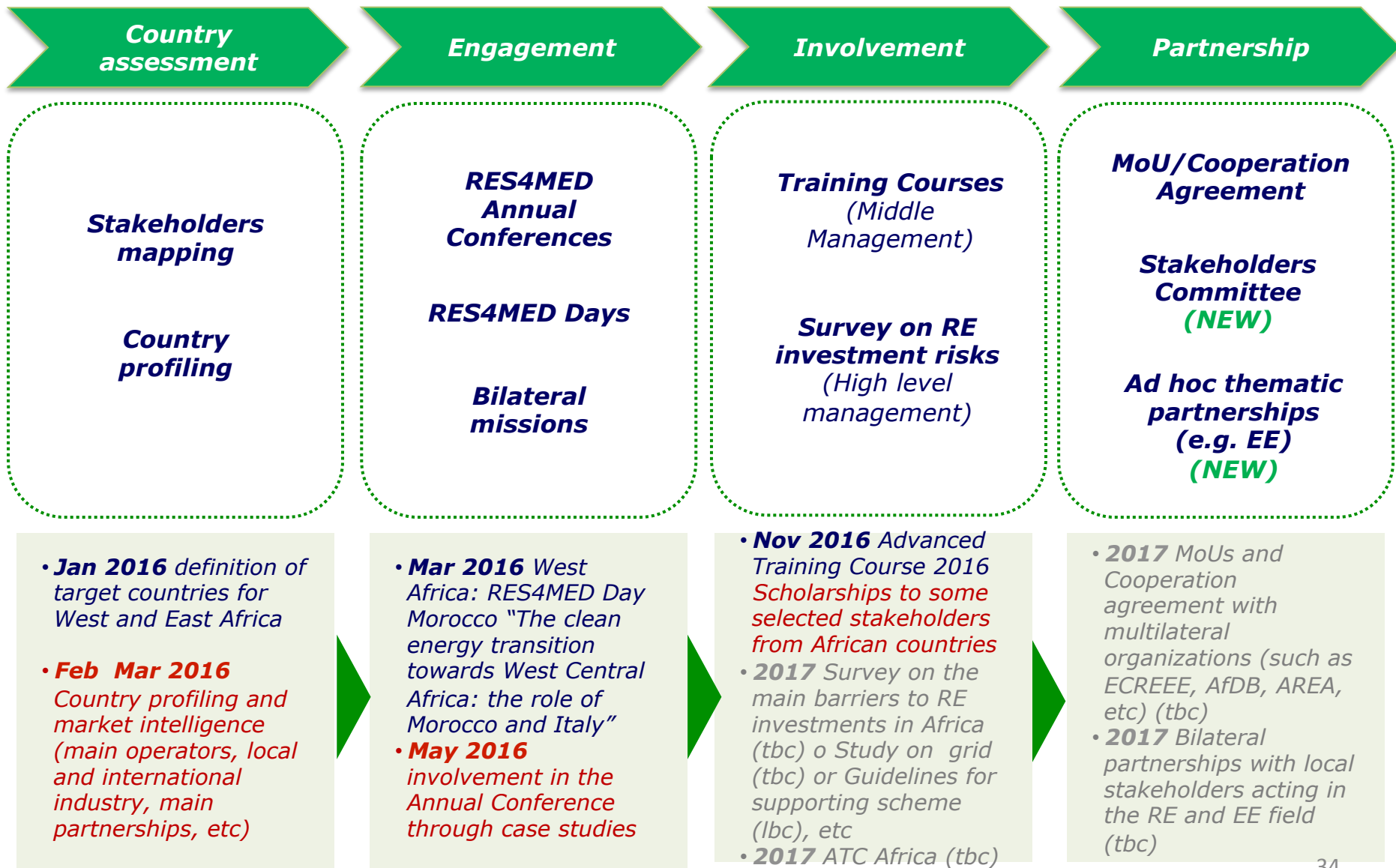


*Ministero degli Affari Esteri
e della Cooperazione Internazionale*

*Patronage request sent to the Ministry. Waiting for approval

Operational model for RES4Africa ??

Preliminary proposal for African countries – 2016/2017



- **RES4AFRICA Days** in selected countries (eg., Kenya) **Oct-Nov 2016**
- **Advanced Training Course Africa** (eg., on mini-grids), to be held in Italy and/or in selected countries (eg., Kenya) **Nov 2016 – Feb 2017**
- Study on **integration of renewable energy** in the electricity grids
- **Survey** on RE specific technology **potentials** (e.g. Rift Valley)
- Preparation of **guidelines for proper remuneration schemes** and Business models for RE

Preliminary steps we are engaged in

- **Launch of “Towards Africa- Central West”** in Rabat on March 9th **done**
- **Participation to African Europe Energy Partnership (AEEP) II Stakeholders Forum**, to be held in Milan on May 16th and 17th 2016 with full involvement of association and selected members
- **“Beyond Med towards Africa”** at the annual conference in Rome May 19th
- **Include 5 experts from the sub-saharian region** in the class of Advanced Training Course with Poli in Milan in November 2016
- **Invite 1 expert from a key country** to attend the Energy Efficiency Course in Turin mid May
- Considering a dedicated space on our website to start marketing our projects starting from our members

Preliminary input from members

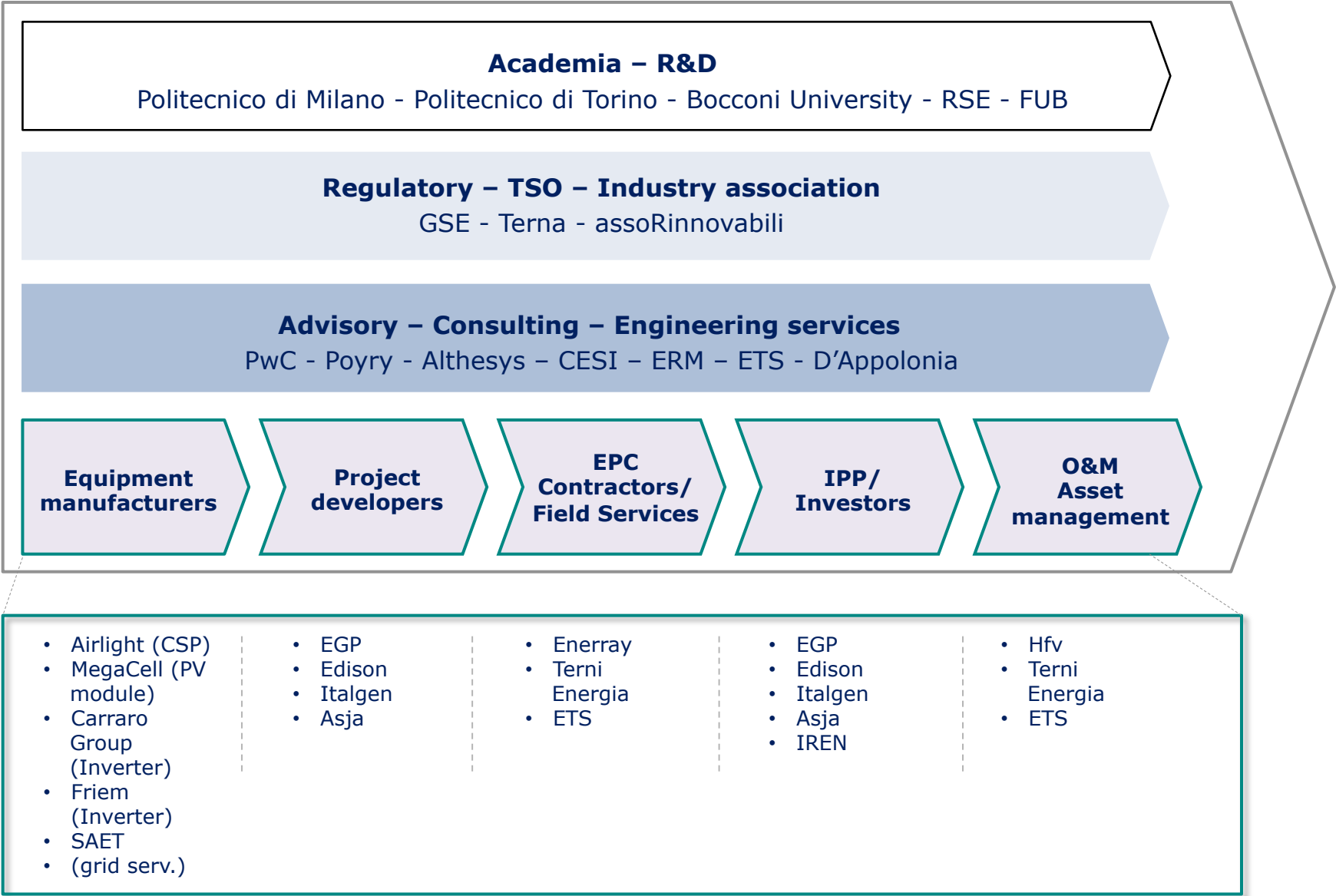
- **RES4AFRICA Days** in selected countries **Oct-Nov 2016**
- **Advanced Training Course Africa** (eg., on mini-grids), to be held in Italy and/or in selected countries **Nov 2016 – Feb 2017**
- Study on **integration of renewable energy** in the national electricity grid
- **Survey** on RE specific technology **potentials** (e.g. Rift Valley)
- Preparation of **guidelines for proper remuneration schemes** and Business models for RE
- A **first mission in Kenya** by our staff -4 to 8 April- gave encouraging indications

ANNEX– RES4MED members

Details

RES4MED membership snapshot

Members' core business in the value chain



Supporter Members



Enel Green Power (<http://www.enelgreenpower.com>) is the Enel Group company dedicated to renewable energy with a presence in Europe, in the American and African continent. Enel Green Power is a founding partner of RES4MED

Mr. Francesco Venturini (CEO and General Director) is President of RES4MED



Edison (<http://www.edison.it/en>) is Europe's oldest energy company., Today, Edison, which is part of EDF Group (Electricité de France), it's one of the most important Italian operators in the procurement, production and marketing of electric power, natural gas and crude oil. Edison employs about 3,200 people in Europe, Africa and Middle East

Mr. Andrea Testi (Head of Power International Business Unit) is Vice President of RES4MED



assoRinnovabili (<http://www.assorinnovabili.it/>) is the main Italian Association (and one of the largest in Europe) representing the electricity producers from renewable sources – hydropower, wind energy, photovoltaic and bioenergy – and the other subjects of RE industry, manufacturing, engineering, consulting and trading companies

Mr. Agostino Re Rebaudengo (President) is assoRinnovabili representative at RES4MED Steering Committee



PwC (<http://www.pwc.com/>) is acknowledged as one of the world's leading advisers on energy, sustainability, infrastructure development and restructuring and project finance across all industry sectors, covering the full range of policy, regulatory, transactions execution and privatization and integration services

Mr. Giovanni Poggio (Partner PwC Italy) is PwC representative at RES4MED Steering Committee

Ordinary Members



Enerray (MaccaferriGroup) (<http://www.enerray.it/?lang=en>) is leader in the design, development and management of medium and large PV plants. The Company delivers turnkey solutions of photovoltaic systems for industrial roofing, shelters, grounds and greenhouses, ensuring best performances.

Mr. Michele Scandellari (CEO) is Enerray representative at RES4MED Assembly



Italgen (Italcementi Group) (<http://www.italgen.it/ENG/home.htm>) operates in the international market of the renewable energy sector. In Egypt Italgen is currently involved in the construction of a wind farm (120 MW) and in the development of an additional one (200 MW) in Gulf El Zeit (Red Sea)

Mr. Giuseppe De Beni (Managing Director) is Italgen representative at RES4MED Steering Committee



P ö y r y M a n a g e m e n t C o n s u l t i n g (<http://www.poyry.it/it/chi-siamo/management-consulting-italia>) is the management consulting arm of the Pöyry Group; through 23 offices on five Continents and employing more than 430 management consultants

Mr. Antonio Nodari (Managing Director) is Poyry representative at RES4MED Assembly



Terna (<http://www.terna.it/Default.aspx?tabid=101>) is a leading electricity transmission grid operator. Terna is the first independent operator in Europe and sixth in the world for kilometers of electricity lines managed

Mr. Carlo Crea (International Affairs Director) is Terna representative at RES4MED Steering Committee



TerniEnergia Spa (<http://www.ternienergia.com>) operates in the development of energy efficient plants both through EPC scheme and FTT scheme (Financing Through Third Parties), pursuing the objectives of increasing energy production from RE sources

Mr. Sergio Agosta (Managing Director) is TerniEnergia representative at RES4MED Assembly

Associated Partners (1/3)



Airlight Energy (<http://www.airlightenergy.com>) Airlight Energy is a Swiss supplier of proprietary solar technologies for large-scale production of electricity and thermal energy, and for energy storage. Airlight Energy is already active in the MENA Region, particularly in Morocco, where, in 2013, it has built its first CPS pilot plant in Ait Baha



Althesys (<http://www.althesys.com/>) is an independent professional firm, specialized in strategic advisory and in the research in the environment, energy and utilities industries. It operates in the areas of strategic analysis, economic and financial research and corporate finance, carrying on studies and projects both at national and international level



Asja (<http://www.asja.biz/index.php>) is an international group that has been active since 1995, designing, building and managing power plants which generate electricity from biogas, wind, and solar energy. Asja intends to develop projects in Mediterranean countries and the Balkans, making use of know-how gained through nearly twenty years of experience in the sector of renewable energy



Carraro (<http://www.carraro.com/en/>) is a leading international group in the field of highly efficient and ecocompatible power transmission systems, with production premises in Italy, India, Argentina, China, Germany, Poland and the United States. The new frontier is represented by renewable energy solutions, such as the inverters for Elettronica Santerno's photovoltaic and wind power systems



CESI (<http://www.cesi.it/Pages/default.aspx>) is one of the most important technical consulting firm worldwide specialized in the Electricity Sector, with a particular focus in Transmission and Distribution. CESI has been active for decades in more than 50 years of activity in generation and transmission studies, particularly in the Med basin



D'Appolonia (<http://www.dappolonia.it/en>) is the operational arm of RINA , developing and offering engineering services. The company provides a wide range of services such as feasibility and specialized studies, design, project management, site engineering and operation & maintenance management



Environmental Resources Management (ERM) (<http://www.erm.com/>) is a leading global provider of environmental, health, safety, risk, social consulting services and sustainability related services.



ETS SpA (<http://www.etsspa.net/>) offers its experience in different types of international projects, which have provided important references. ETS offer integrated services of multidisciplinary design and management of projects, mainly in the Power, Oil & Gas and Petrochemical industries.



Friem (<http://www.friem.com/>) is leader in design and manufacture High Power Converter for Industrial, Traction and Renewable Energies applications. FRIEM started the production of the ReCon Line, a complete line of Inverters for RE



Ugo Bordonì Foundation (<http://www.fub.it/en/home>) is an independent research institute of high culture under the supervision of the Ministry for the Economic Development, that has a long tradition of studying in telecommunication and Information and Communication Technology (ICT) sectors

Associated Partners (2/2)



Holding Fotovoltaica SpA (<http://hfvspa.com/>) develops and operates solar power plants in Italy, especially in central and southern regions of the country. The company also provides construction and management of photovoltaic parks



IREN (<http://www.gruppoiren.it/>) is one of the largest and most dynamic multi-utility companies on the Italian scene and operates in the sectors of electricity, thermal energy for district heating and gas, and in the management of integrated water services, environmental services and technological service



MegaCell (<http://www.megacell.it/home-english/>) is the leading and Italian based photovoltaic (PV) bi-facial high efficiency cells and module manufacturer. MegaCell has decided recently to expand its activities also in Egypt. In fact last 25th Nov. 2014 MegaCell and Misr Asset Management, the Cairo-based Investment Bank which provides fund management



SAET (<http://www.saetpd.it/>) develops Systems and Turn-Key supplies based on the following core competencies such as: HV Substations, MV-LV Distribution Systems, Protection Metering & Control Systems

GSE (<http://www.gse.it/en/Pages/default.aspx>) has been operating since 2005 as the implementing body of national policies on renewable sources as well as an active participant in the International context, by supporting the Ministries of reference



RSE SpA–Ricerca sul Sistema energetico (<http://www.rse-web.it/home.page?country=eng>) – is a joint-stock company, the only owner of which is GSE SpA, that develops research activities in the field of electricity and energy, relevant to the strategic national projects of public interest, funded by the "Fondo per la Ricerca di Sistema"



Politecnico di Milano (www.polimi.it/en/english-version/) is the largest Technical University in Italy, founded in 1863. At the Department of Energy, more than two hundred fifty staff academics, temporary researchers, post-doc and PhD candidates work on various energy research projects, with at strong effort towards the application of RES technologies, distributed generation and smart grid in the Mediterranean



Politecnico di Torino (www.polito.it/index.php?lang=en) founded in 1906 from the roots of the Technical School for Engineers created in 1859, has a long-standing tradition of leadership of polytechnic culture. It is one of the most important universities in Europe for engineering and architecture studies, strongly committed to collaboration with industry business



Bocconi University (<http://www.unibocconi.eu/>) is a private university in Milan, Italy. Bocconi provides undergraduate, graduate and post-graduate education, in addition to a range of double degree programs, in the fields of economics, management, finance, law and public administration