

# The Smart Energy opportunity for the Italian Industry

*Global Technology, IP scenario*

22 October 2013

Rome, Confindustria - V.le dell'Astronomia, 30

---

## Background

Smart energy is no longer a niche market and a new smart paradigm is gaining momentum worldwide, opening a window of opportunity for technological transformation. **Global revenue from smart energy reached \$222 billion in 2012 and the total market value is expected to be \$420 billion by 2015.**

Addressing potential solutions to the energy and environmental issues, new technologies have moved out from research labs and a number of convergent market drivers are leading to expanded availability and increasing revenue opportunities across the smart energy value chain. These drivers include the rising costs of maintaining the current energy system as well as regulatory and policy initiatives in many countries around the world.

The new approach basically relies on a different way of generating, delivering and using energy. Smart energy solutions encompass therefore broad technology domains such as Energy Generation, Energy Storage, Energy Infrastructures and Energy Efficiency which in turn are translated into innovative technology applications. Some examples are Smart Grids, Smart Buildings, Smart Utilities, Smart Cities. ICT applications play an increasingly vital role in providing energy management systems with intelligent solutions as well.

**The smart energy market, however, appears to be at an early stage of development yet and all players – utilities, equipment providers, service providers – must carefully redesign their business models and value proposition.** New entrants into the energy sector, including players in the ICT sector, are reshaping the competitive landscape and the new solutions are emerging often as the integration of various products, technologies and services.

As a result, the future energy landscape for home, cities, electric vehicles, electricity grids will be affected by technologies that are currently at different stages of development. Key obstacles are lack of interoperability and shared standards, regulations and lack of demand of smart grid-enabled services by consumers which is according to utilities executives the biggest barrier to smart grid value creation.

In Italy, as stated in the new National Energy Strategy Plan, the energy system is expected to take advantage of the smart opportunity and to play a key role in improving the Italian competitiveness through an important structural reform for the country. Among smart energy solutions, Smart Grid technologies cover a relevant role: Smart Grid development is growing at different rates in USA, Europe and China. Market sizing from research specialists forecast \$89 billion for the global smart grid technology market in 2015 with a compound growth rate 2010-2015 of 26%. Forecast for Europe is \$9 billion in 2016. Asia will be the largest market.

Market segments – smart generation, renewable energy integration, distribution automation, demand response management systems, advanced metering infrastructure (AMI), customer-side applications, storage systems, ICT systems integration - have different stage of potential and size of investments. Customer applications, technologies, competitive intensity, regulation/policies for demand-generation and the status of the existing national grids will drive the growth. Specific applications driven by regional markets priorities will also create new niches and opportunities.

In this context, we have the research activities of the **DITNE (National Energy Technology Cluster)** that within the PON Research and Competitiveness 2007-2013, managed by the Ministry of Education and Research and the Ministry of Economic Development, has also obtained funding the SEB project (Systems research and development of electrical and thermal energy efficient generation, management and storage, integrated and interconnected in a Virtual Power Plant) whose main objective is to test and validate new technologies in the energy sector, new production systems and new control logic in distributed energy generation, to satisfy the energy demand in medium-sized complex.

Italy is a benchmark as far as concerned the deployment and penetration of smart metering thanks to the investments of the largest national utility company started since 2001. Over 80% of the future investments will be in AMI and distribution automation. However, Smart Grids solutions require a full integration of several products, technologies and services and today the value chain is still highly fragmented in almost the advanced countries. **Players thus need to pursue more integration at industrial and research level with partnerships, technology transfer and M&A opportunities.**

**To support the smart energy players in their innovation strategies, collaborative R&D and technology exploitation, ICM Industrial has developed “IRM Smart Energy Platform”, a Competitive Technology Intelligence and Technology Transfer services platform. “IRM Smart Energy Platform” includes all the data/knowledge bases and insights at global level regarding technologies, patents, players, end markets, potential licensees, potential acquisition, regulation and policies and business models researches.**

Smart grid value chain mapping by country have been developed to support national players to find attractive business opportunities, technologies and patents. Technologies and IP status and scenarios insights have been developed for the key smart grid technologies domain.

To share the experiences, insights and opportunities and to listen the voice of the Italian **Smart Energy Players DITNE**, in collaboration with ICM Industrial, organizes the seminar **“The Smart Energy Opportunity for the Italian Industry - Global Technology, IP scenario”**

## Seminar objectives

- Share experiences, insights and key challenges for the Italian Players of the Smart Energy Industry with a focus on Smart Grid
- Outline the opportunities of creating a strong smart grid Italian value network by transferring technologies, know-how and patents

## Seminar Audience

- Senior Management of Smart Energy strategies and innovation of Utilities, Large Equipment Vendors, SME, Public Research Organizations and Technology Transfer Offices of Universities/Research Centers

**Participation is free, for information and subscription: [segreteria@ditne.it](mailto:segreteria@ditne.it)**

---

---

# The Smart Energy opportunity for the Italian Industry

*Global Technology, IP scenario*

*Rome, 22 October 2013*

*Confindustria - V.le dell'Astronomia, 30 – Room A*

Agenda h.2.30-6.00 p.m.

## Welcome

- **Smart Energy scenario – issues and opportunities**
  - Francesca Jacobone – President DiTNE – Roma Tre University
  - Loredana Capone – Assessore Sviluppo Economico – Regione Puglia
- **The Smart Grid Technology and IP global scenario**
  - Pier Biga – President ICM International and Partner IPT Alliance
  - Patrick Pierre – CEO Avenium Consulting SA and Partner IPT Alliance
- **Smart Energy Opportunities for the Italian Industry**
  - **Current Smart Grid and Smart City Projects in Italy**
    - Michele Trovato – Polytechnic of Bari
  - **IRM Smart Energy Technology Intelligence & Transfer Platform**
    - Angelo Cavazzana – ICM Industrial
    - DiTNE Representative - Smart Energy Technology Bank Project
  - **Smart Energy Academic & Scientific Expertise in Italy - Case**
    - Alberto Zigoni – Elsevier Scival

h. 4.45 p.m.

- **Transferring & Developing technologies to reinforce the Smart Grid Italian Value Chain**
  - Round Table managed by Diego Gavagnin – Professional Fellows WEC (World Energy Council)
  -
- **The Industrial Player point of view**
  - Lorenzo Fiori – Finmeccanica
  - Livio Gallo – ENEL
  - Giovanni Milani – Enipower\*
  - Corrado De Rinaldis Saponaro – TCT
  - Chicco Testa - Assoelettrica
- **The Research Point of view**
  - Mario Panizza – Roma Tre University\*
  - Domenico Laforgia – University of Salento
  - Aristide Fausto Massardo – Polytechnic School (University of Genova)
  - Luigi Nicolais – C.N.R.
  - Carlo Tricoli – ENEA
- **The regulation/policies point of view Deputy Minister of Economic Development**
  - Leonardo Senni – MiSE

## Conclusion

*\*to be confirmed*

## DiTNE – ICM International Contacts

**DiTNE S.C. a r.l.**

**Brindisi**

S.S. 7 KM. 706+030

Tel: +39 0831 1871223

Fax: +39 0831 1871301

**Marta Marra**

**Assistant**

[segreteria@ditne.it](mailto:segreteria@ditne.it)

**ICM International**

**Milano**

Via Monte di Pietà, 21

Tel: +39 02 86337602

Fax: +39 02 86337400

**Monica Cavaliere**

**Marketing & Communication**

[monica.cavaliere@icmadvisors.com](mailto:monica.cavaliere@icmadvisors.com)

---

---

## Di.T.N.E Profile

The National Technology Cluster on Energy (Di.T.N.E.) was born on August 1st, 2008 to strengthen contact and scientific cooperation between research and industrial institutions, strengthen competitiveness, international wide visibility and encourage quantitative growth of business and skills.

The strategic targets are:

- to initiate a structured network of communication and technical / scientific collaborations between the research and industries involved in the production;
- to strengthen planning ,operational and prototypal skills of the applied and industrial research;
- to facilitate investment in dedicated technological and technical / scientific infrastructures;
- to promote and support the start of new high-tech companies;
- to strengthen and improve the international wide visibility;
- to promote training of current skills

The Cluster deals with:

- To support the institutions that promote scientific and technological research to stimulate interest, coordination and the start of events and projects concerning the energy, both at the national and international level.
- To join all subjects involved in the supply chain of the technologies to harness energetic sources, renewable energies and linked research.
- To support, through scientific and technological excellence, in the Energy's field, development of research, focusing itself on the infrastructural consolidation and technological transfer dealing to the needs and expectations pronounced by national productive sector operators, as well as European shared strategies for competitiveness, innovation and sustainable development.
- The main research areas are:
  1. components and energy conversion systems;
  2. CO2 reduction and reuse systems;
  3. new technologies for smart grids;
  4. innovative components and systems for renewable energy;
  5. efficiency and energy saving;

The cluster also proposes to provide strategies, tools and technologies to revitalize the market for renewable energy sources in Italy. It is important to note that renewable energy sources, with their characteristic widely distributed throughout the country, can considerably increase its contribution to the energy balance of the country under the "local energy clusters": in this way founding a National Cluster get even more importance.

[www.ditne.it](http://www.ditne.it)

## ICM International Profile

ICM International Group is a leading European high-value added specialized professional services organized in three business units:

- Intangible Asset/IP Valuation & Strategic Services – ICM Advisors
- Research & Competitive Intelligence – ICM Research
- Innovation & Technology Transfer – ICM Industrial

ICM International counts among its clients Large Companies, Industrial Cluster, SMEs, Research Organizations, Universities, Government Agencies, Banks and Financial Investors.

ICM International is a founding member of IPT Alliance, with Avenium Consulting SA (France - Subsidiary of CEA Commissariat à l'Energie Atomique et aux énergies alternatives) and Patev Associates GmbH (Germany). IPT Alliance is the European leader in Intellectual Property Management and in Technology Transfer with a track record of references in many industrial sectors.

ICM International operates with a staff of over 150 professionals.

European Offices: Düsseldorf – Geneva – Grenoble – Hamburg – Karlsruhe – Milan – Munich – Paris – Turin – Vicenza

ICM Industrial provides innovative services and tools to support fast innovation, technology management and market exploitation.

The company has a deep economic, technological, industrial know-how and advanced tools applied by its experts and professionals in many industry sectors and technology fields in the most industrialized European countries.

ICM Industrial offers technology, IP, industrial expertise and services such as Technology Portfolio Management, Technology Valuation, Competitive Technical Intelligence, Cluster Management, Technology Transfer and Collaborative R&D exploitation in Open Innovation environment.

Services are delivered through the IRM® (*Innovation Relationship Management*) Platform of best practices, processes, technology and market information bases organized by industry sectors and available in cloud-computing mode.

ICM Industrial, in addition of its international organization, has a network of collaborations and relationships with high profile Competence and Research Centers specialized on critical technology and engineering disciplines in many industries.

[www.icm-industrial.ch](http://www.icm-industrial.ch)

---