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Via Barberia 13 - Bologna

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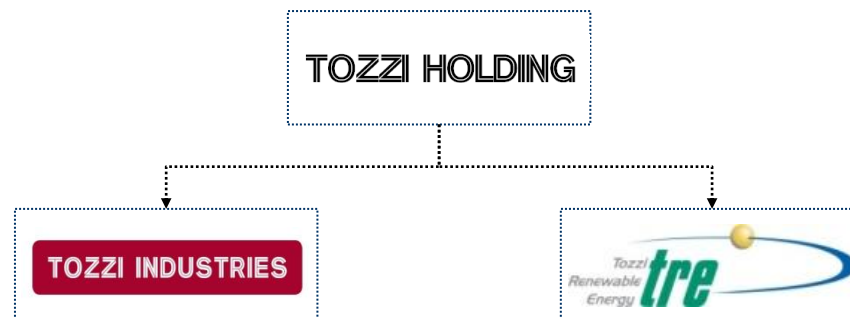
WHERE WE COME FROM

TOZZI HOLDING

TOZZI HOLDING

Tozzi Group is active in the **electrical** plant and **instrumentation** system industries since the yearly '50s.

Today the Group has widely diversified the range of services and goods supplied and, following the group reorganization in 2006, it has now the following structure:



The Group is controlled by **Tozzi Holding**, which is the Tozzi family holding company. The Group currently operates into the following two industries:

- **Electrical and instrumental installation:** historical core business of the Group. Currently it is wholly managed by the sub-holding **Tozzi Industries**;
- **Renewable Energy:** Tozzi Group is involved in this business since early 2000 through the sub-holding **Tre S.p.A. Tozzi Renewable Energies** (hereinafter “**TRE**”).

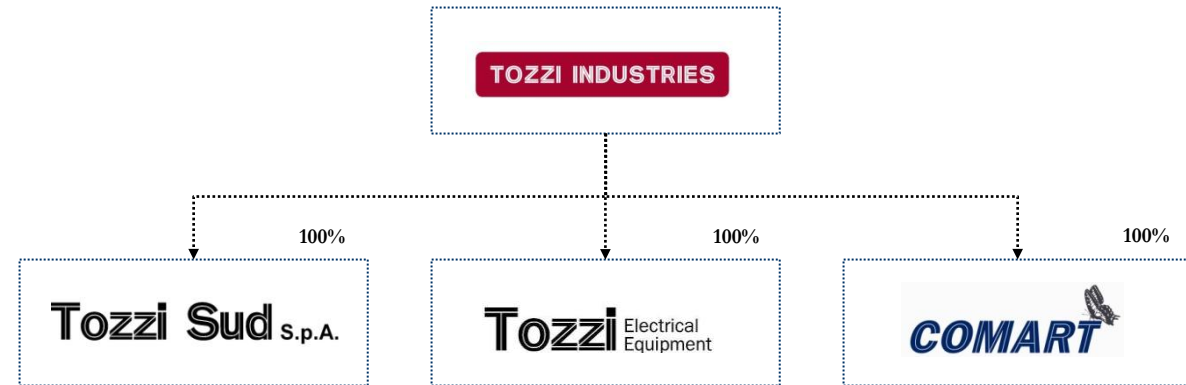
TOZZI HOLDING

TOZZI INDUSTRIES

Tozzi Holding directly controls through its sub-holding Tozzi Industries:

- **Tozzi Sud S.p.A.;**
- **Comart S.p.A.;**
- **Tozzi Electrical Equipment S.p.A..**

The following graph shows the Tozzi Industrie organizational structure.



TOZZI SUD

The evolution of the group began with **Tozzi Sud S.p.A.**, which has now been operating for more than **50 years**, both in Italy and overseas, in the fields of power plants, switchgear and instrumentation.

Tozzi Sud is today involved in **designing, manufacturing and installing**, both in Italy and internationally:

- **Electrical plants and instrumentation systems;**
- **Power plants** for the **energy production** from renewable sources;
- **Pre-fabricated, pre-equipped, transportable enclosures** for **energy distribution and control/automation systems.**

OFF SHORE WORKS



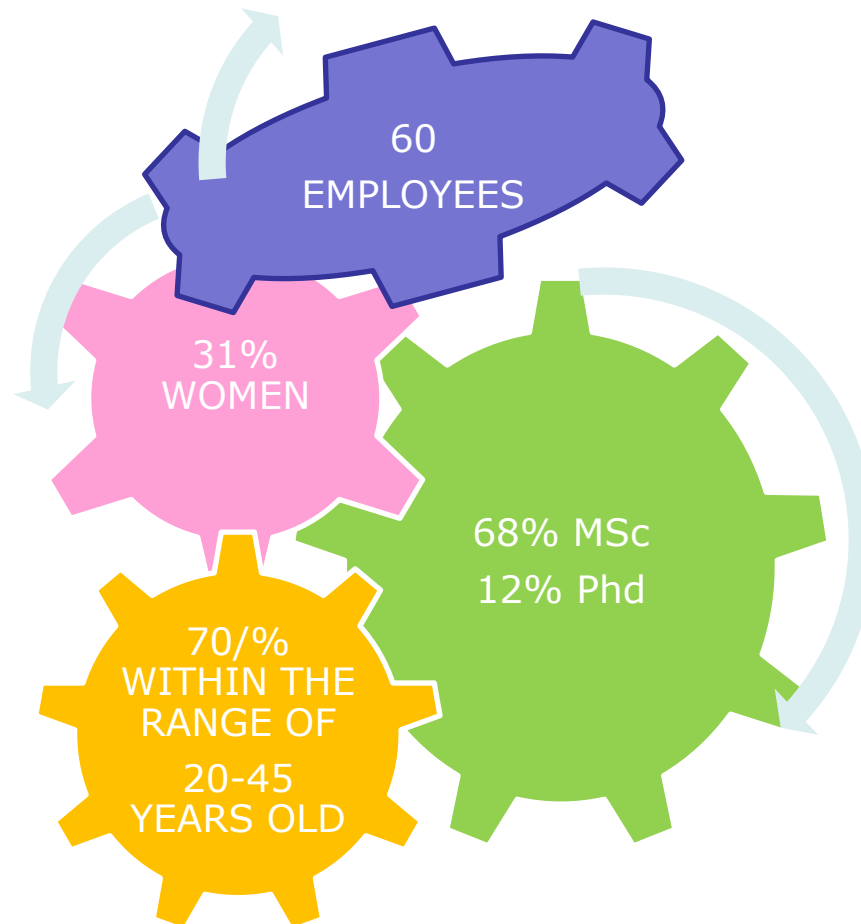
ON SHORE WORKS



POWER PLANTS



WHO WE ARE

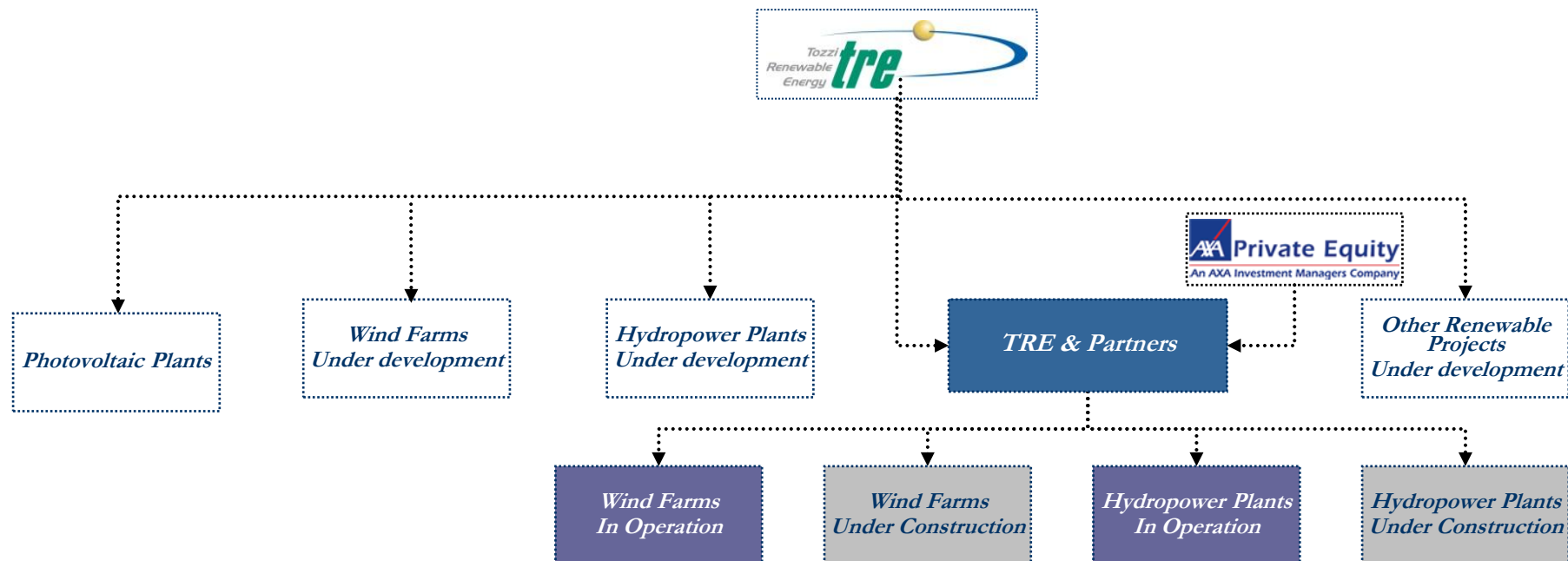


TOZZI RENEWABLE ENERGY

TRE BUSINESS MODEL

TRE has internalized the **main activities** related to the development of renewable power plants and is able to provide to its subsidiaries the following services:

- **Pre-reliability** analysis of the projects;
- **Valuation** of the projects;
- **Project designing** (preliminary, definitive and executive);
- **Authorization process** management;
- Definition of **legal outlines** and **contracts** (lands, grid connection, financing, assurances, energy sale etc.);
- **Projects execution** (construction, acceptance and commercial start-up);
- **Services and Maintenance** activities to the plants.



WHAT WE DO

RENEWABLE POWER PLANTS IN OPERATION/CONSTRUCTION

Wind Farm			
Plant	Start Date	Installed Capacity (MW)	Yearly production (MWh)
Total in operation		259	563.808
Wind Farm Under Construction			
Total under Construction	feb-12	74	185.000

Hydro Plants			
Plant	Start Date	Installed Capacity (MW)	Yearly production (MWh)
Total Operating		49.65	105.042
Hydro plants Under Construction			
Total Under Construction		8,4	25.000

PV Plants			
Plant	Start Date	Installed Capacity (MW)	Yearly production (MWh)
Total MW in operation		75,95	95.523
PV Under Authorization			
Total MW under authorization		13,72	21.500

CALVELLO



MALLERO



SANT'ALBERTO



POWER PLANTS UNDER DEVELOPMENT

ACTIVITIES IN THE FIELD OF RENEWABLE

The portfolio of Tre S.p.A. is composed of a large number of plants under development for about 2700 MWE divided as follows:

- **Hydroelectric plants:** in Italy and abroad for a power of 150 MW;
- **Onshore wind farms:** more than 1000 MW in Italy and 500 MW Abroad;
- **Off shore wind farms:** 279 MW in Italy;
- **Photovoltaic systems:** over 100 MW of photovoltaic plants
- **Solid Biomass Plants:** for a total capacity of 50 MW
- **Liquid Biomass Plants:** for a total capacity of over 50 MW

HYDRO



EOLIC



SOLAR



BIOMASS



OFFSHORE



OTHER RENEWABLE ACTIVITIES

JATROPHA CURCAS

TRE is also involved in the development of Jatropha Curcas plantations in order to secure the supply of vegetable oil to its power plants under development.

- **Jatropha Curcas** is a shrub native of **Central America** and is traditionally cultivated as living fence in many tropical and **subtropical countries**;
- it is **easy to cultivate**; in fact it can grow in degraded land and in **low rainfall** (350 – 700 mm) and can be irrigated with urban waste water;
- it starts to produce **fruits after** the **second rainy season**; it reaches **maturity** at the **fifth year** and has a **productive life** of more than **25 years**;
- in ideal conditions its productivity can reach up to **6 tons of dry seeds per hectare**;
- in optimal conditions the seeds obtained can produce up to **35% of their weight** of **oil per cultivated hectare**;
- jatropha **seedcake** can be **fired** to **produce energy**, performs as an excellent organic **fertilizer** and produces low grade soap.

Jatropha Plant



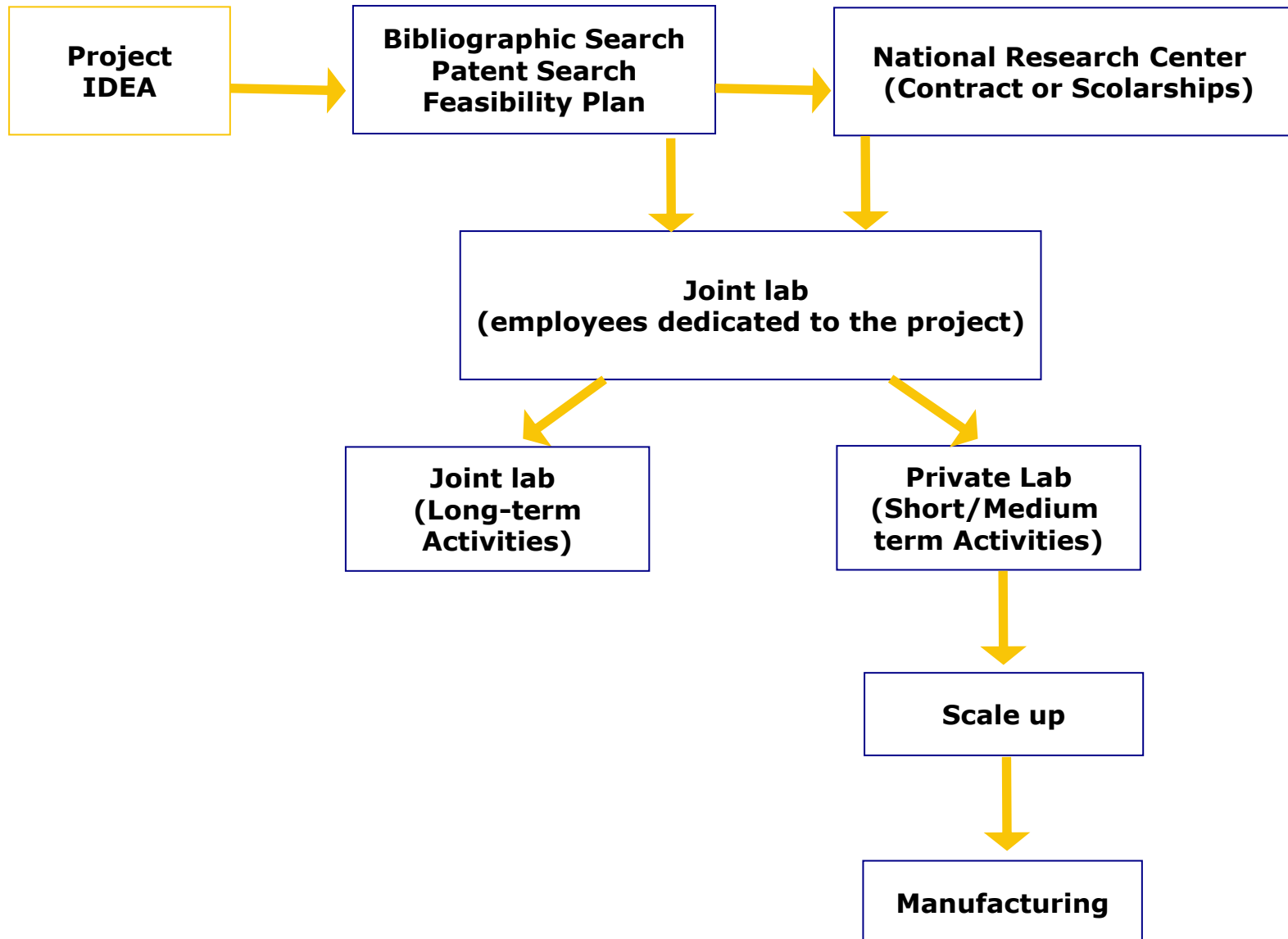
Jatropha Fruit



Jatropha Seeds



RESEARCH AND DEVELOPMENT



RESEARCH AND DEVELOPMENT

The Research and Development (R &D) of TRE was born in 2006 with the aim of bridging the gap in the Tozzi Group manufacturing technologies for the production of electricity from renewable sources.

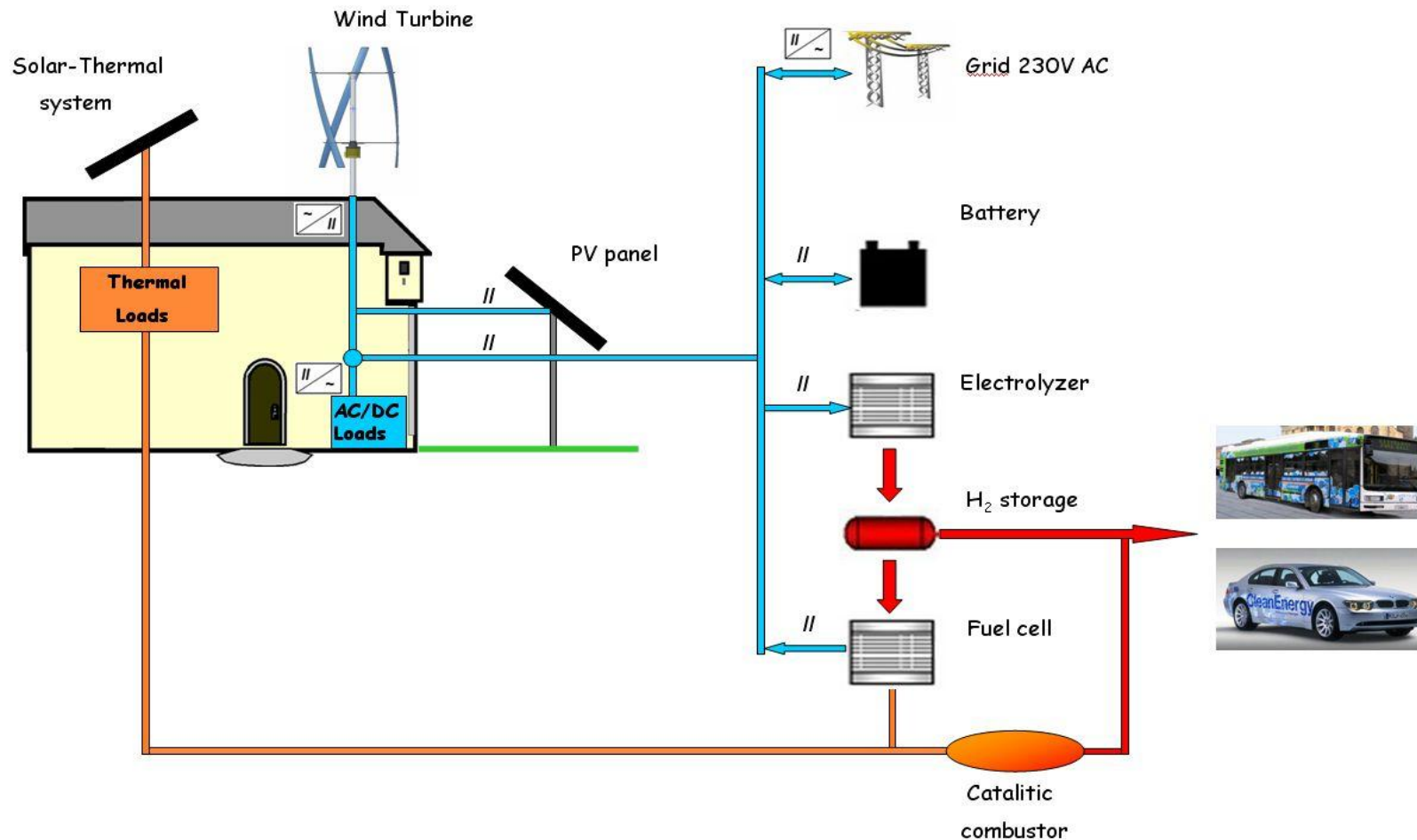
The staff dedicated to R&D now consists of 20 researchers who are dedicated to develop projects in the field of information technology for plants for distributed generation of electricity from renewable sources.

The development strategy of the projects was as follows:

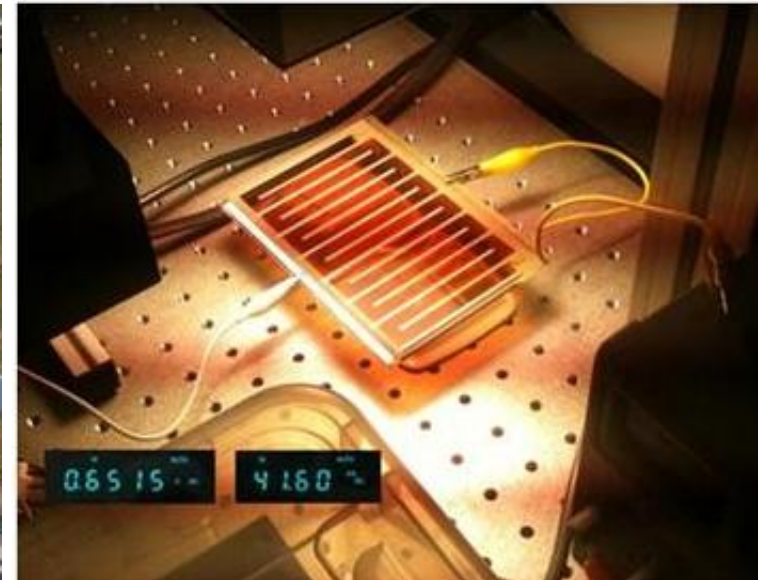
- market research (identification of the sector, competitive products, patent situation, etc ...)
- identification of the research facility at which to make the first phase of industrial research (commonly collaboration ,funding of scholarships, research contracts or creating Jointlab) with research institutions and universities, both Italian and foreign),
- request for public funding (provincial, regional, national, European Community)
- construction of research laboratories engaged in the activities of the Group's industrial research and experimental development, continuing collaboration with the research institution to which are assigned research activities in the medium and long term
- industrial research partnership
- production start
- marketing of products

RESEARCH AND DEVELOPMENT

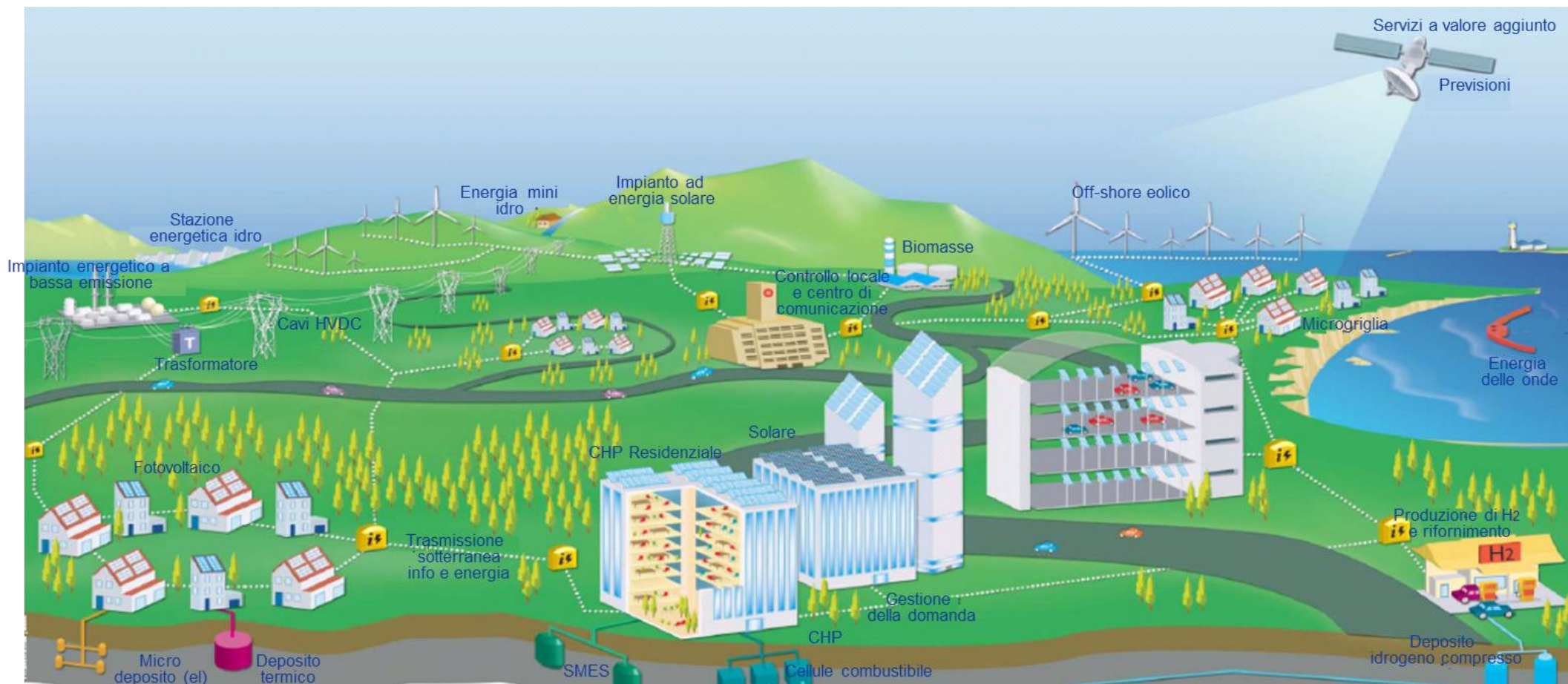
- **Distributed generation systems (DGs):** is a system of energy production of small dimensions (10kW-10MW) located in the distribution system near the point of consumption .



R&D PROJECTS



WHY WE DO IT



WHICH SHOULD BE THE ADDED PhD VALUE

PROBLEM SOLVER

TIME AND TEAM MANAGER

(Chose the right time to do the right thing with the right person)

IDEA PROVIDER (Stay hungry, Stay foolish)

HUMBLENESS TEACHER (I know that I do not know)

Phd EXPECTATIONS

SHOW AND USE HIS SKILLS

LEARN NEW THINGS

FIND A NICE JOB PLACE

FIND A REASONABLY WELL PAID JOB

COMPANY EXPECTATIONS FROM A Phd

**ENGLISH SPEAKING, IP PROPERTY RIGHTS, RESEARCH
PROJECT MANAGEMENT, PUBLIC COMMUNICATION, etc...**

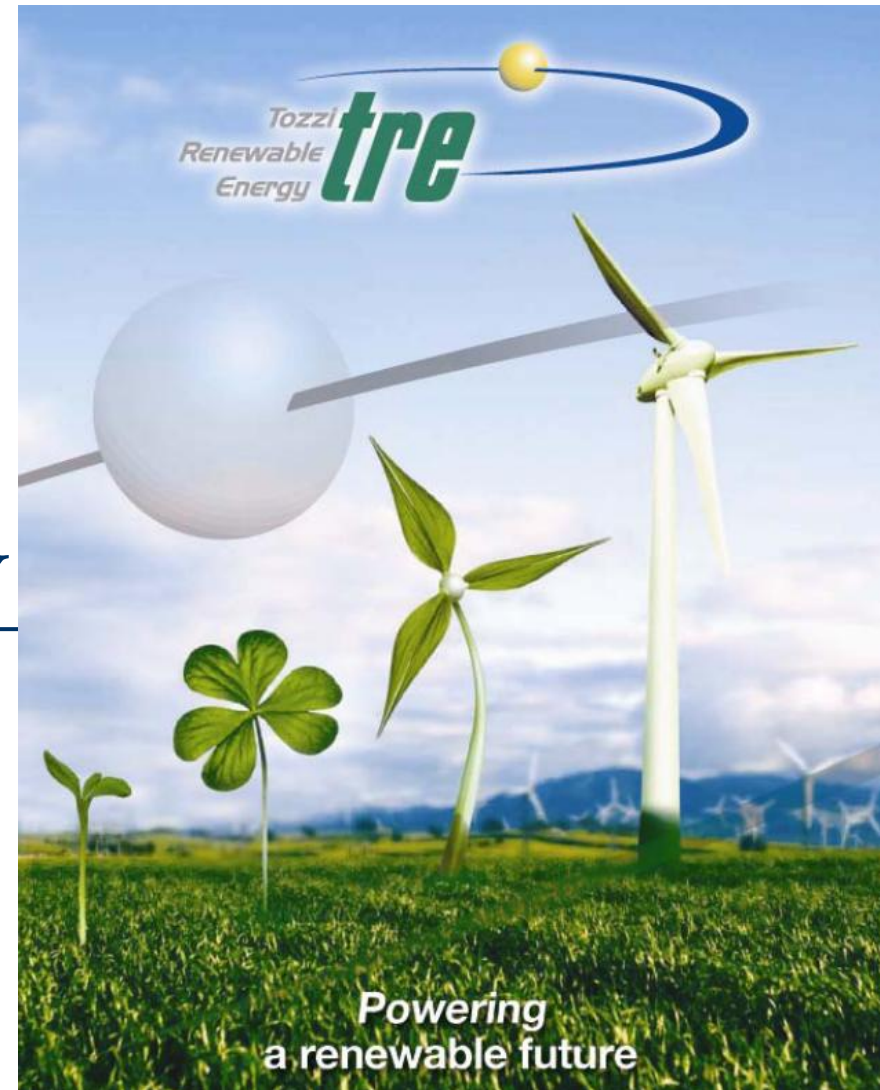
IDEAS MANAGER (He should choose the right idea)

KNOW HOW TRANSFER MANAGER

(He should know how to carry on a know how transfer process)

SELF MANAGEMENT SKILLS

TOZZI RENEWABLE ENERGY



Francesco Mattenucci