

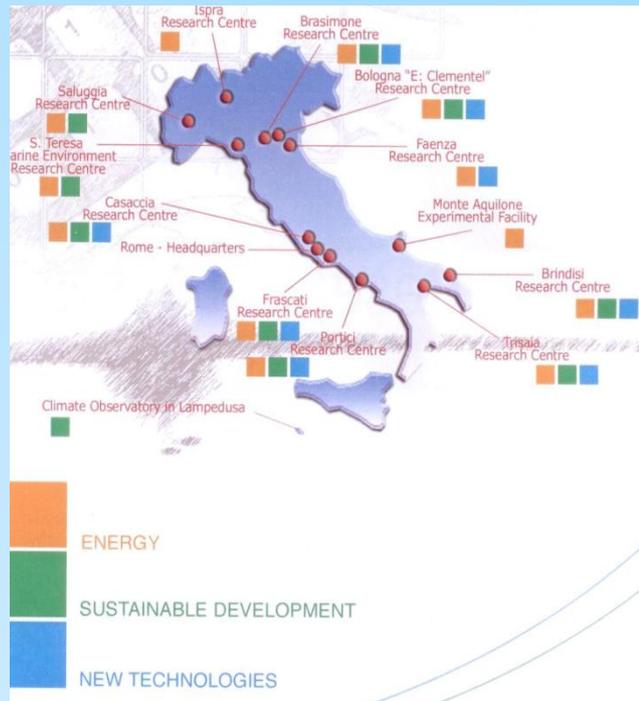


An overview of ENEA

Massimo Busuoli

Head of ENEA Brussels Unit





*the Italian National Agency for
New Technologies, Energy and
Sustainable Economic
Development*

*is aimed at
research, innovation technology and advanced service in the field
of energy, particularly in nuclear energy,
and sustainable economic development*

ENEA Agency

has a great historical background, since we inherited the resources, competence and expertise created and developed by the preceding bodies that made advanced research in the energy sector in Italy since 1952

1952

CNRN - National Committee for Nuclear Research

1960

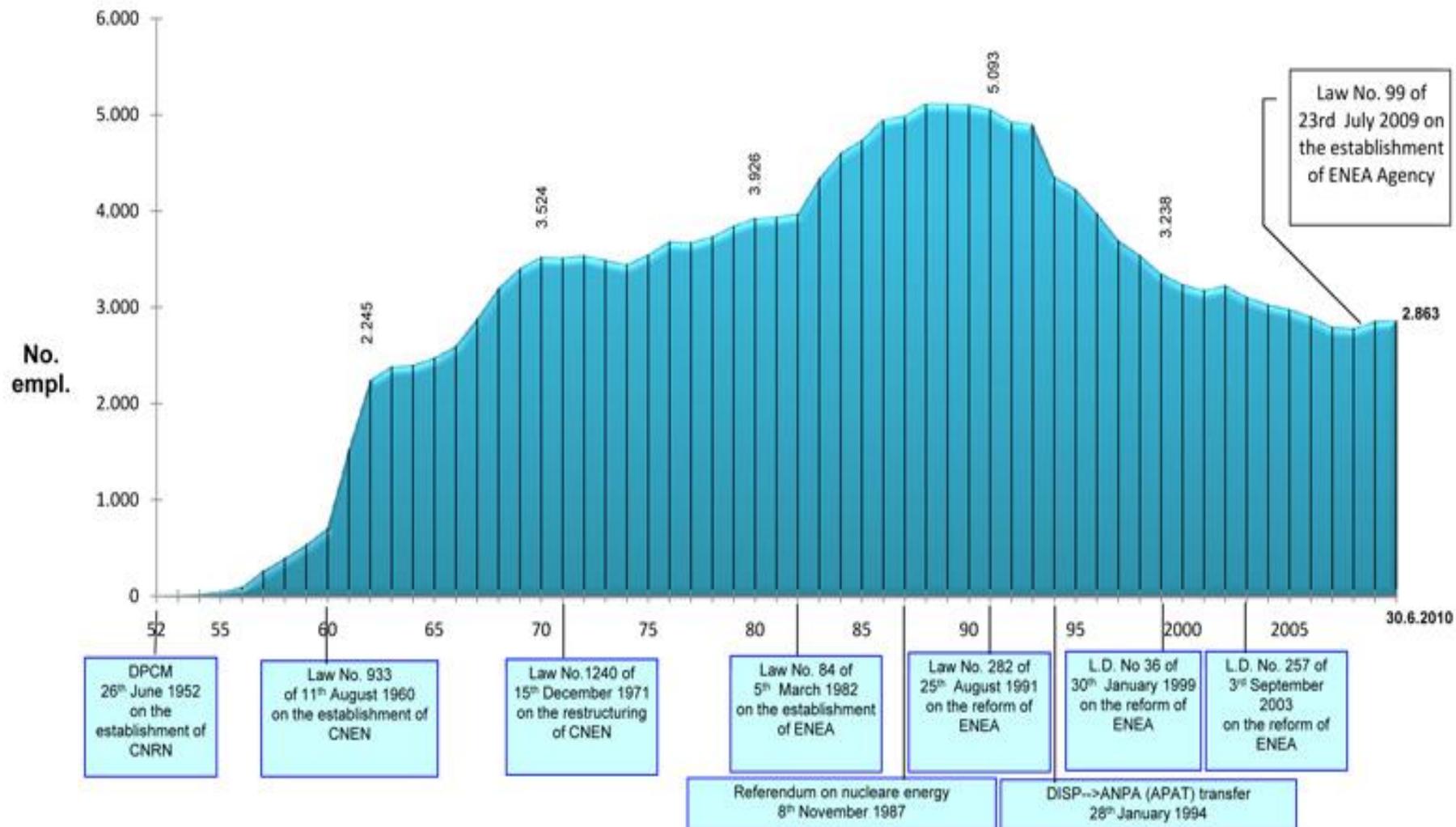
CNEN - National Committee for Nuclear Energy

in the same year the Centre of ISPRA was sold out to EURATOM (born in 1957)

1982

ENEA - Nuclear Energy and Renewable Energies

Staff CNRN–CNEN–ENEA since 1952



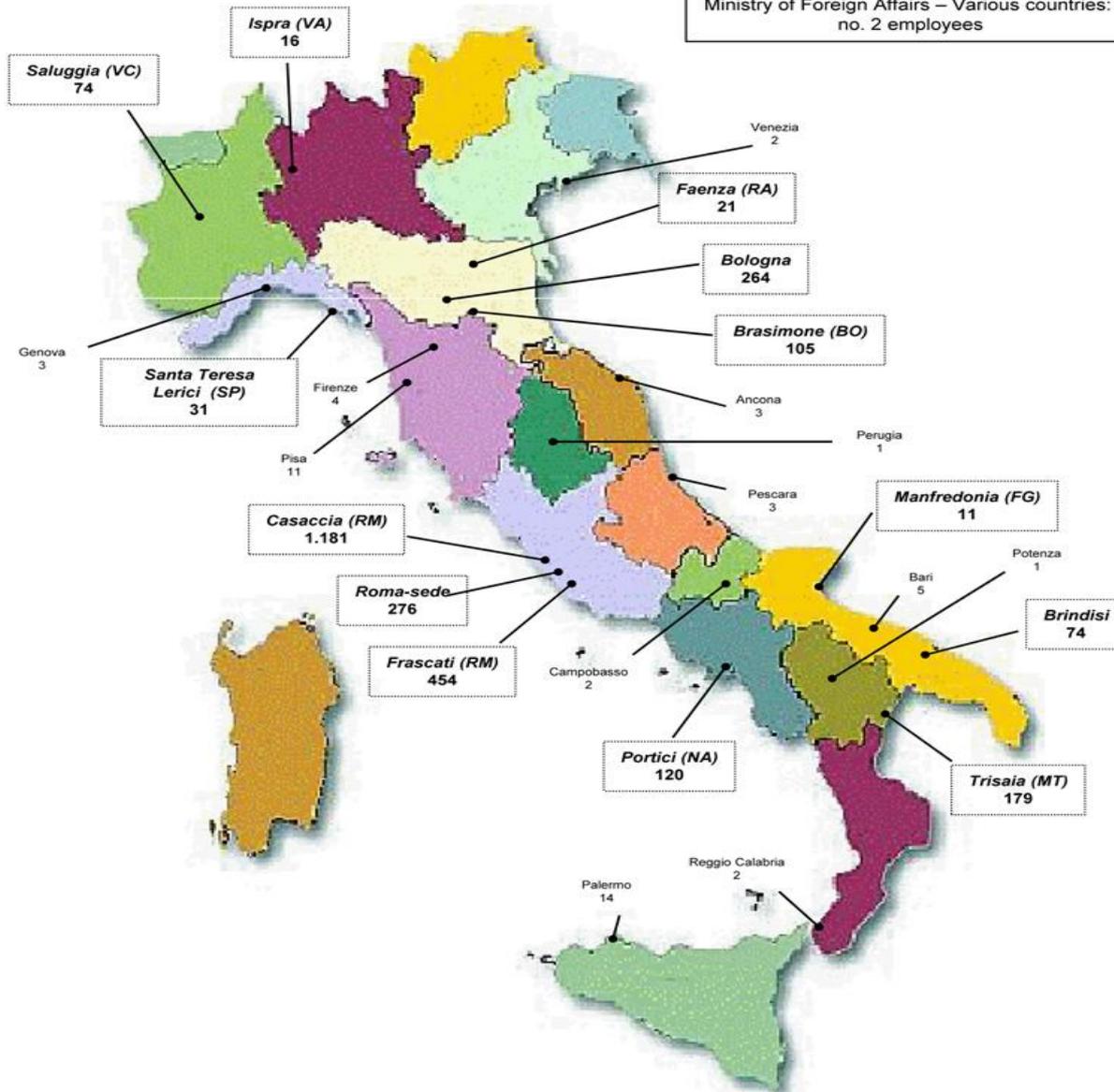
ENEA Research Centres and Labs



ENEA Staff and Centres

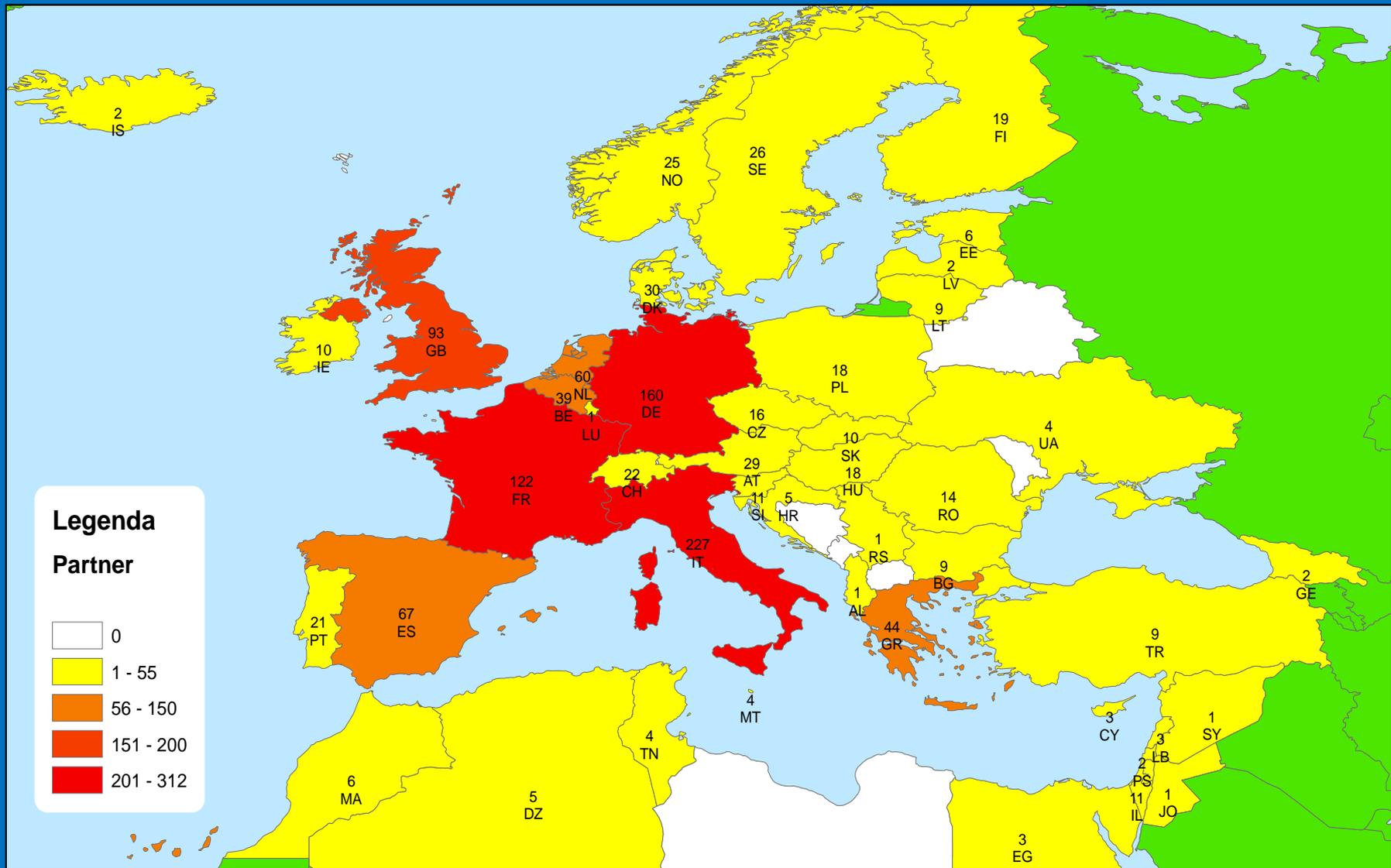
ENEA BRANCH OFFICES OVERSEAS:

Bruxelles:
no. 4 employees
Ministry of Foreign Affairs – Various countries:
no. 2 employees

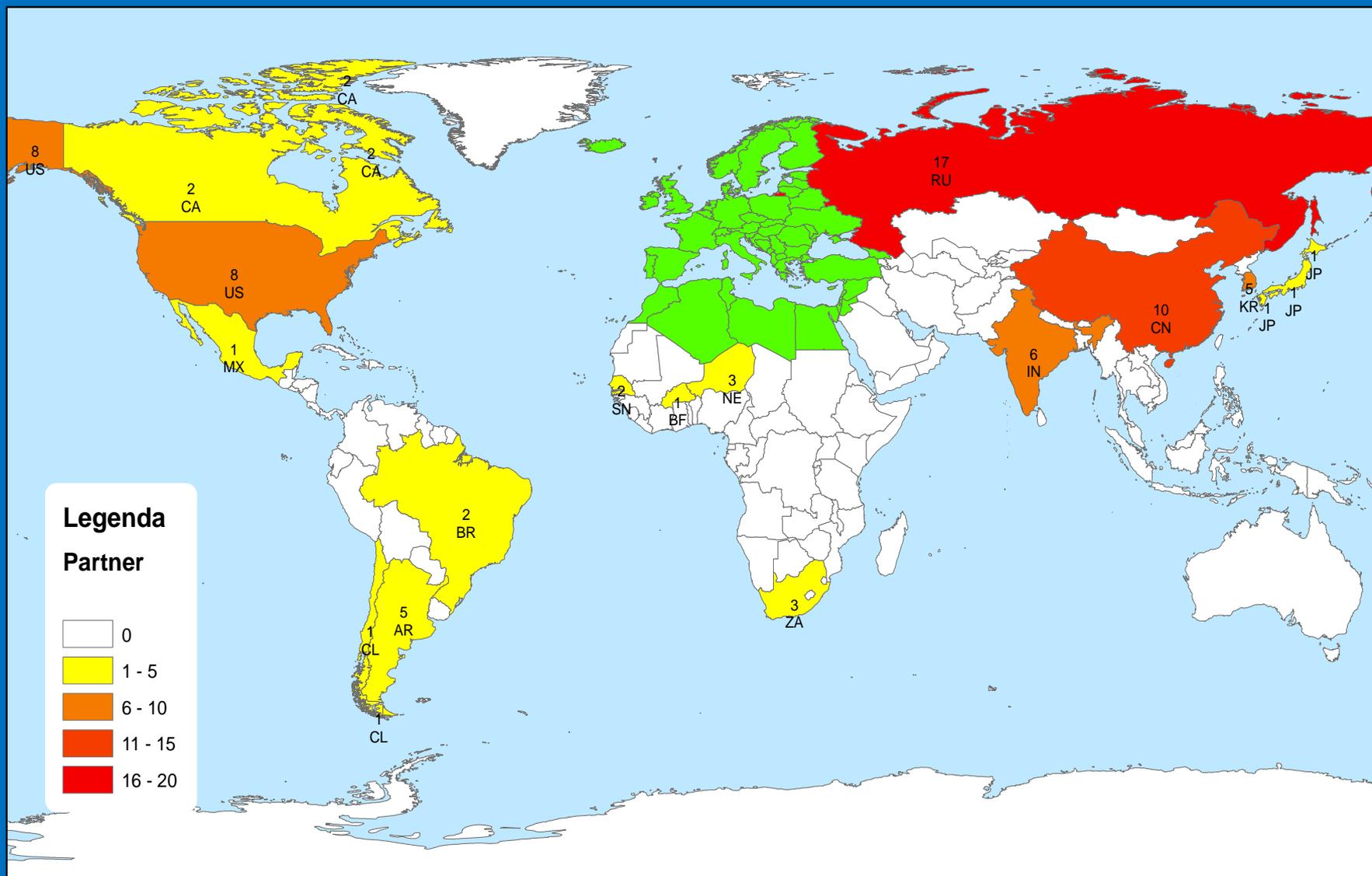


TOTAL STAFF: no. 2.863 employees

ENEA Partners in the UE and Mediterranean areas



ENEA Partners in the rest of the world



Technological areas

Renewable
sources

Environmental
technology

Biotechnologies

Energy efficiency

Advanced
technology for
energy and
industry

ICT

Nuclear fission

Nuclear fusion

Renewable sources



- ❖ Solar Thermal
- ❖ Photovoltaic
- ❖ Biomass
- ❖ Biofuel
- ❖ Small wind generator
- ❖ CO2 sequestration
- ❖ Hydrogen from renewable sources
- ❖ Fuel cells
- ❖ Batteries and super condensers

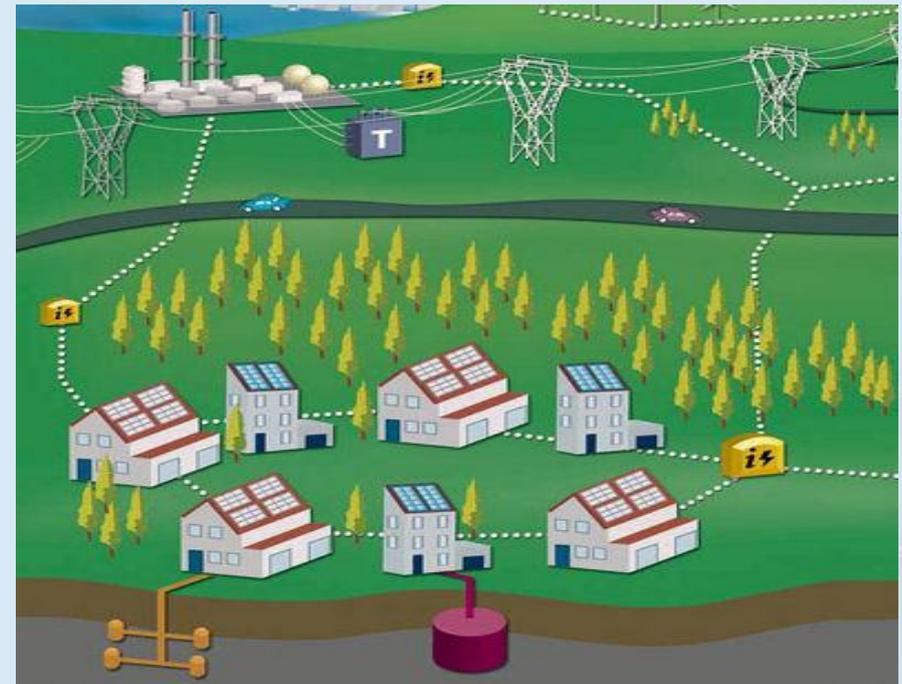
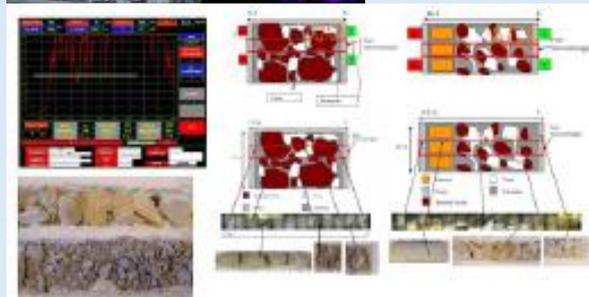


Energy efficiency

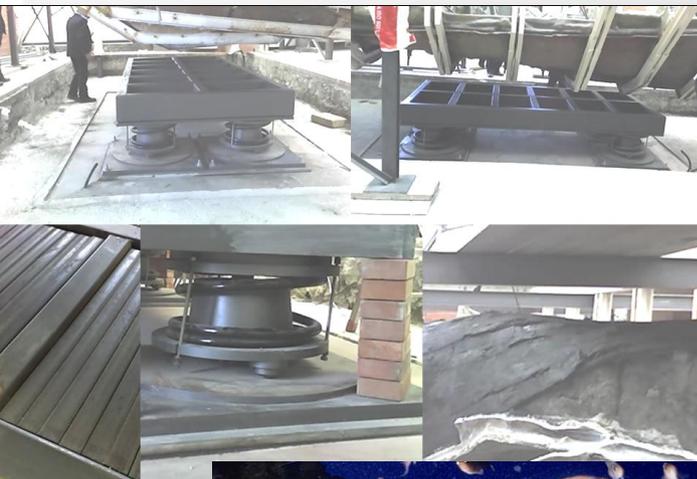


- ❖ Technologies for the civil sector, transport, industry
- ❖ Smart grid management
- ❖ Electric generation plant

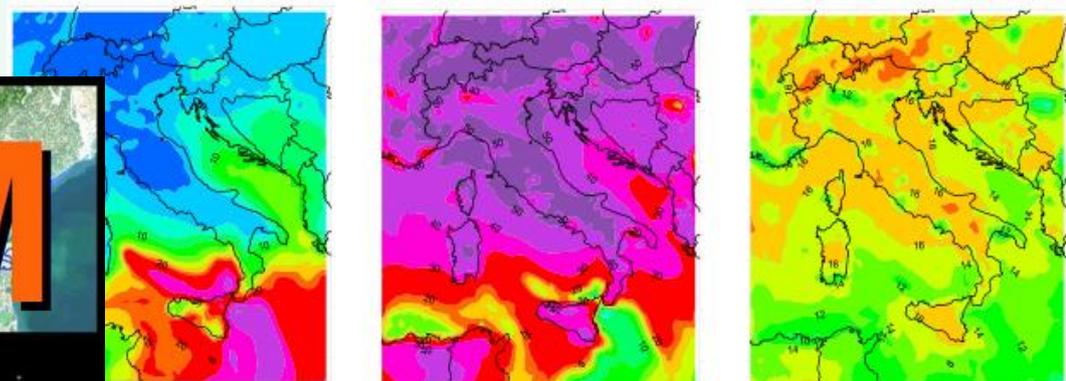
ENEA has the role of national agency for energy efficiency in compliance with the EU directive 2006/32/CE on energy end-use efficiency and energy services.



Environmental technologies

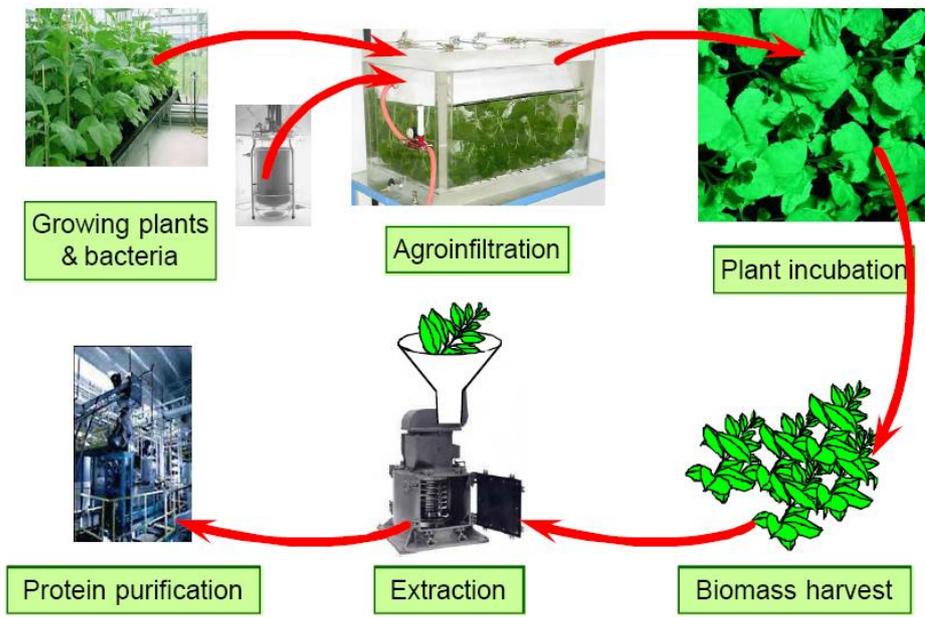


- ❖ Environmental remediation
- ❖ Integrated management of waste cycle
- ❖ Planning remediation of polluted sites
- ❖ Impact assessment tools on the atmosphere
- ❖ Energy and environmental modelling
- ❖ Italian Antarctic Research Programme
- ❖ Seismology and seismic engineering

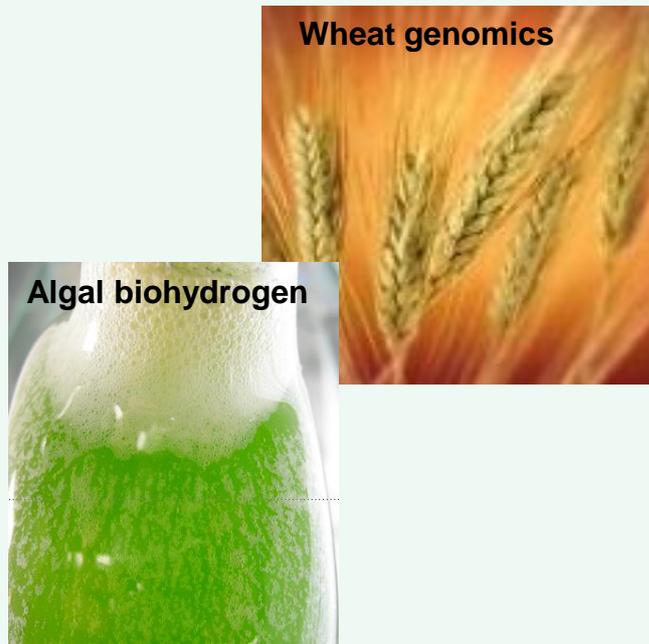


Origine del particolato secondario

Biotechnologies



- ❖ Vegetal omics technologies
- ❖ Food industry technologies
- ❖ Food quality and safety diagnostics
- ❖ Biofuels from biomass production
- ❖ Agro-energy districts
- ❖ Industrial bioproducts
- ❖ Production of molecules and pharmaceuticals from plants



Nuclear fission



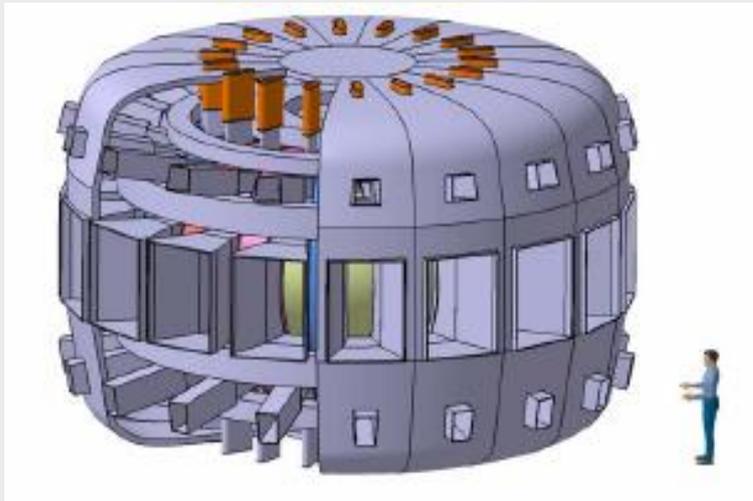
- ❖ Core and shielding
- ❖ Fuel cycle security and safety
- ❖ Characterization of materials and components
- ❖ Design and experimental engineering methodology
- ❖ Radioactive waste management
- ❖ Decommissioning
- ❖ Innovative fuels
- ❖ Radioprotection and radiation measurements



Nuclear fusion



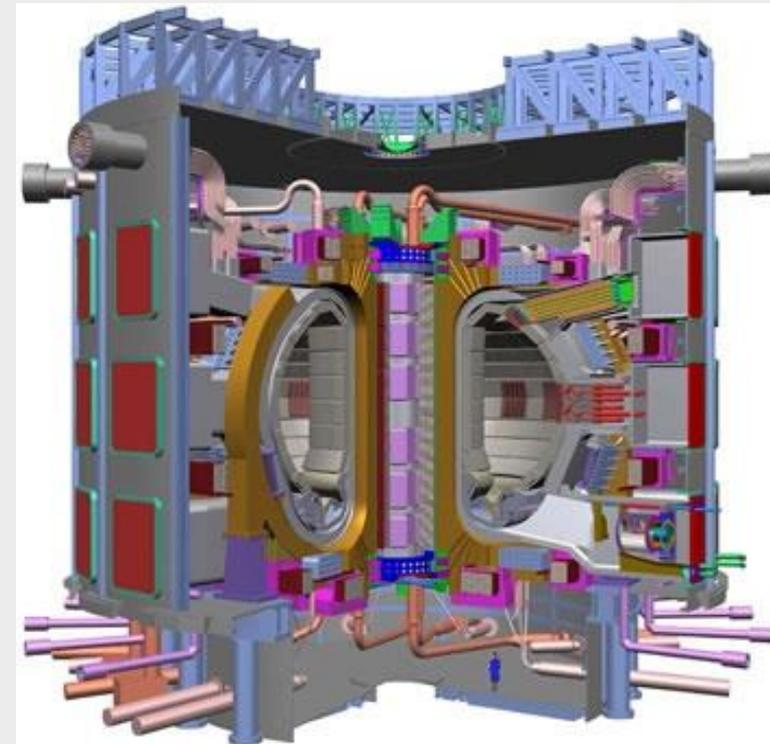
FTU



FAST

- ❖ Superconducting magnets
- ❖ High heat flux components
- ❖ Materials
- ❖ Remote maintenance
- ❖ Fuel cycle
- ❖ Heating of plasma
- ❖ Injector of particles bundles

ITER





- ❖ Super computing infrastructures
- ❖ E-science
- ❖ Technical scientific applications
- ❖ Business intelligence
- ❖ Decisional support
- ❖ E-learning
- ❖ Knowledge management



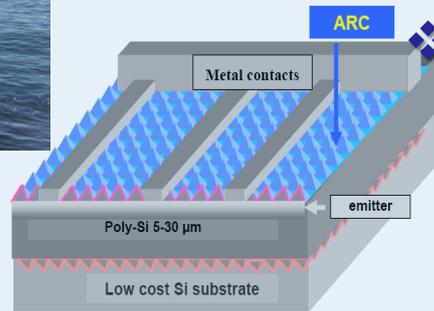
MOdeling Tools for Interdependence Analysis for ICT systems

ADVANCED TECHNOLOGY FOR ENERGY AND INDUSTRY

SARA during the immersion in the Antarctica Sea



- ❖ New materials
- ❖ Industrial and medical applications of ionizing radiations
- ❖ Non ionizing applications in optics
- ❖ Advanced robotics



Solar cell



INTERESTED IN JOIN US?



*Should you be interested in an application for a Marie Curie I.E.F. in
ENEA*

please contact

Roberta Boniotti
roberta.boniotti@enea.it

*as your entry-point to the complex ENEA's environment
that will drive you to the right Technical Unit*

THANK YOU FOR YOUR ATTENTION

massimo.busuoli@enea.it