ESIREIMS
Ecole Nationale Supérieure d'Ingénieurs
Ingénieurs de demain !

ENERGY ENGINEERING

From energy balances of buildings and industries to materials and systems heat science...

WHO IS AN ENERGY ENGINEER?

- Energy is the science that analyzes all heat transfers, from the production or origin of energy to its exploitation, through the different types of transport and storage.

- The ESIREIMS Energy Engineer is a project manager specializing in energy and thermal engineering whose skills lie in the fields of industrial energy, building energy, renewable energies, materials heat and process heat science.

JOBS

The energy major must meet the current and future needs of companies in the fields of energy and heat transfer. To do this, it trains in many professions related to these fields such as Energy Business Manager, Energy Operations Manager, Thermal Design Engineer, Thermal R&D Engineer, Energy Efficiency Manager... Through their work, engineers in the Energy major contribute to the achievement of the objectives of the new RE2020 environmental regulations introduced by the 2015 Law of Energy Transition for Green Growth (LTECV), the National Low-Carbon Strategy (SNBC) and the Pluriannual Energy Programming (PPE).

- **Energy engineers**: Engineer in charge of projects, missions, building sites, Business Manager, Renewable Energy & Sustainable Development Engineer...

- **Heat engineers**: Fluid Engineer, Design Engineer, R & D, Calculations & Numerical Simulations, Product Engineer...

ENERGY engineer

Energy production and distribution

Energy saving certificates

Building

Heat balances, home automation, building energy efficiency

Renewable energies & sustainable development

Energy transportation

Heat networks, dimensioning…

Industry

Management of energy resources, greenhouse gases, carbon footprint

Monitoring, expertise, passive and positive energy buildings, standards, ER2020

Energy Transition Act for Green Growth

HEAT engineer

Aeronautics

Propulsion, flow, turbomachinery...

Automotive

Engine cooling, cabin cooling, battery cooling...

Ovens and burners

Tunnel furnaces, brazing, welding...

Metallurgy

Thermal cycles, high temperatures...

Food industry

Manufacturing, dehydration, drying... **Ceramics and plastics**

Injection, polymers, thermoforming...

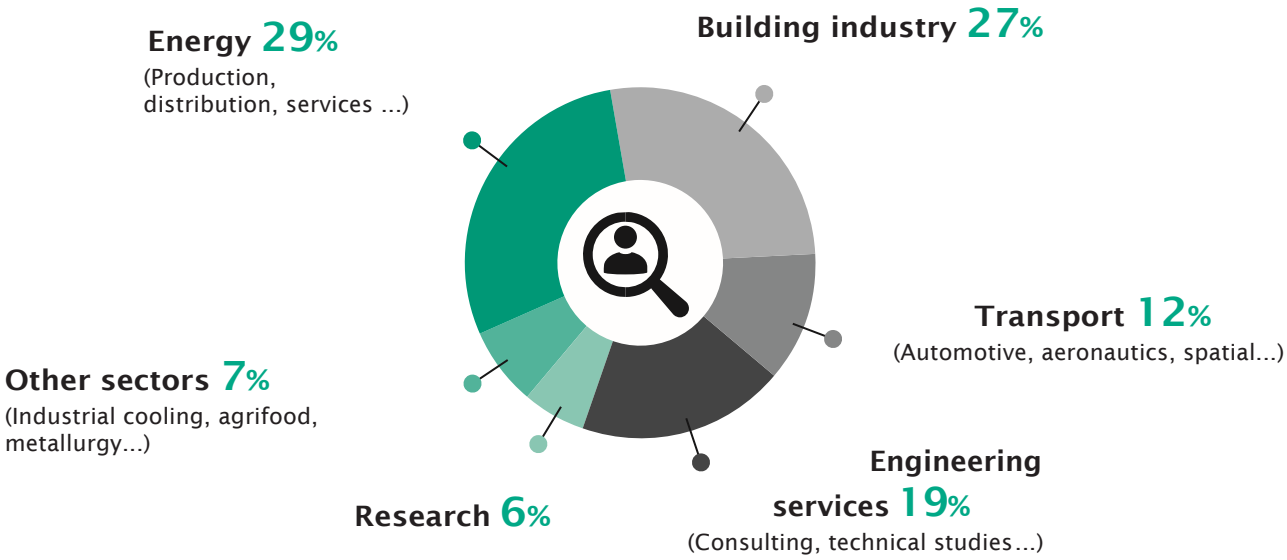
ESIREIMS, 3 Esplanade Roland Garros
51100 Reims, France - www.esireims.fr
Tél : 03 26 91 33 99

ESIREIMS
Ecole Nationale Supérieure d'Ingénieurs
Ingénieurs de demain !

BUSINESS SECTORS

The sectors of activity occupied by the engineers of the Energy specialty concern the production and distribution of energy, building, transportation (automotive, aeronautics, space), engineering services (consulting, technical studies), research as well as processing industries.

- **Energy engineers:** co-generation, renewable energies, eco-design and resource management (sustainable development, waste treatment, etc.), building energy (Energy Performance Diagnosis, heat balance, home automation, lighting, etc.).
- **Heat engineers:** in the sectors of heavy industries (automotive, aeronautics, metallurgy...), processing industries (food processing, ceramics, plastics...) and research centers.
- **Executives in charge of missions, project managers:** energy expertise and controls: energy management (Certificate of Energy Saving, carbon footprint balance...)



JOBS AND CAREERS: OCCUPATIONAL INTEGRATION AND SALARIES...

90% of graduates found a job within 2 months, 72% of them just after graduation

35 k€ = average gross annual salary

CONTACTS

More info

Secretary:
Mrs. Sophie ZWEIFEL: 03 26 91 33 99 / sophie.zweifel@univ-reims.fr
Contact ESIREIMS:
esireims-contact@univ-reims.fr