



ESIREIMS
| Ingénieurs de demain !
Ecole Nationale Supérieure d'Ingénieurs

Ecole nationale Supérieure d'Ingénieurs de Reims **The Engineering School from the University of Reims**

3 engineering majors:

Packaging engineering

Energy engineering

Environmental and urban planning engineering (since 2020)



1 Master's degree in Sustainable urban planning

1 preparatory class after high school (on Parcoursup) (since 2020)

Public school, University tuition fees

Open day: February 3, 2024 (9am-5pm)

www.esireims.fr

Université de Reims Champagne-Ardenne





Reims

Dynamic city at the heart of the East region.

Home to the most prestigious champagne houses, Reims is a city of cultural, sporting, economic and academic effervescence...

Only 45 minutes from Paris by TGV!



ESIReims

Admissions 2-year undergraduate degree

CPGE (preparatory classes) Admissions:

- **MP, PC, PSI:** Polytech competitive exam – Preregistration: www.scei-concours.fr
- **BCPST, ATS, PT...**: Attestation of eligibility for a competitive exam – Recruitment on file and interview

2-year university undergraduate degree (L2, L3, BUT) Admissions:

- **L2, L3:** Any scientific training.
- **BUT:** Any scientific 'BUT' (Scientific Technical Bachelor's degree) according to the major:
 - **Packaging:** Physical measurements, Packaging, Mechanical and production engineering, Chemistry engineering, Chemistry, Bio engineering, Material science and engineering
 - **Energy:** Physical measurements, Energy and thermal engineering, Mechanical and production engineering, Civil engineering, Material science and engineering...
 - **Environmental urban planning:** Civil engineering and sustainable building, Energy and thermal engineering, Physical measurements, Mechanical and production engineering, Bio engineering (environmental engineering), Networks and telecommunications...

Applications to be submitted on eCandidat (URCA website)



Admission after a high school diploma

ESIREIMS engineering preparatory class (2 years):

Admissions after a high school diploma on Parcoursup: **CPI-ESIREIMS**

Scientific high school diplomas: Math, Physics-Chemistry, Biology and Engineering Sciences


For any information on admissions:

Please contact: scol.esireims@univ-reims.fr



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ESIReims engineer syllabus


Core curriculum courses for the three majors (30%):

- **Scientific courses:** Math, Physics, Chemistry, Materials resistance...
- **Economic, social and human sciences:** Management, Sustainable development, Marketing, Negotiation...
- **Communication:** Expression techniques, English (TOEIC compulsory – B2 level), second foreign language...

Specialty courses:

- **Packaging:** Materials, Mechanization, Logistics, Printing Techniques, Container-Content Interactions, Design, Eco-Design, CAD-CAM, Prototyping...
- **Energy:** Heat Transfers, Industrial Energy, Heat Exchangers, Climate Engineering, Renewable Energies, Energy Diagnostics...
- **Environmental urban planning:** Operational urban planning, Sustainable city, Territorial planning, Urban project, Roads and various networks, Territorial ecology, Urban planning and environmental law, Smart city...





ESIReims engineer syllabus

Internships:

Students will have spent one year in companies over 3 years:

- 11 weeks spent abroad at the end of their 1st year
- 4-5 months at the end of their 2nd year
- 4-6 months at the end of their 3rd year (graduation project)

International perspectives:

Internships abroad (starting during the first year)

Gap year

One Erasmus semester, or one semester outside Europe





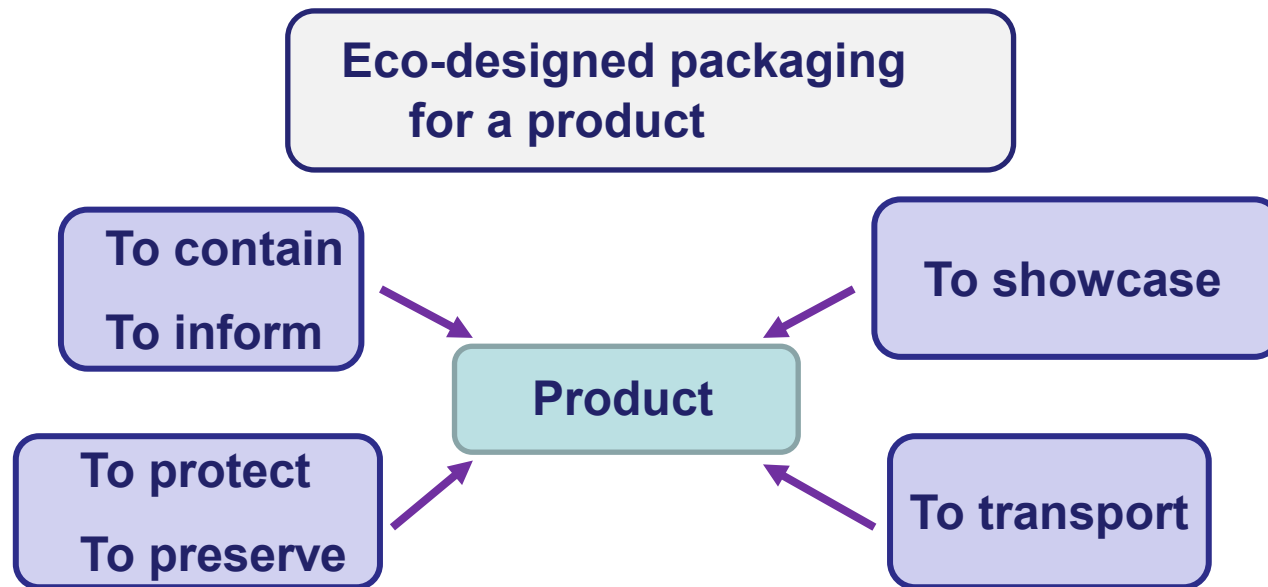
Packaging engineering

The ESIREIMS Packaging engineer

**is a Project Manager
specialized in Packaging
engineering**




Packaging at the heart of societal and environmental issues



The packaging industry:

- Ranked 8th in French industries (same ranking as the aerospace industry)
- 110,000 positions
- 850 schools
- + € 25 billion (turnover)



Who is a **PACKAGING** engineer?

He/she is a **Project Manager** with good communication skills

working in... **team** on... **different missions**

He/she evolves in ... **companies** in an... **international environment**

He/she works... **in collaboration** with... **company departments**
(Purchasing, quality, production marketing...)
suppliers,
subcontractors,
clients





Packaging engineering jobs

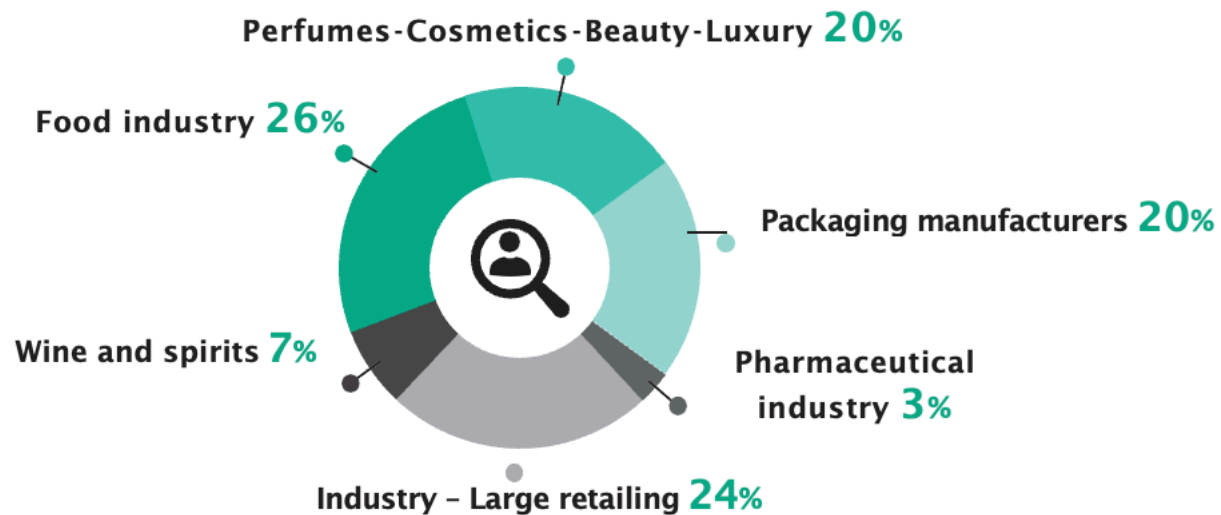
Missions

- **Eco-design, development, packaging optimization, CSR approach**
- **Definition of specifications, choice of materials, management of the graphic chain - Document management**
- **Market analysis, search for suppliers, deployment of an ethical and responsible purchasing strategy**
- **Quality tests, homologation - Traceability - Transport and logistics**



Packaging engineering jobs

Business sectors





Packaging engineering occupational integration

Top-level multidisciplinary training close to industrial realities

Average time to find a job: 2 months.

Average starting salary: €36,000 € (annual gross, without bonuses) (2019)

30 % of graduates take their first job abroad.

Training based on social skills and expertise skills

Career flexibility and adaptability



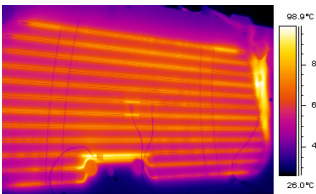
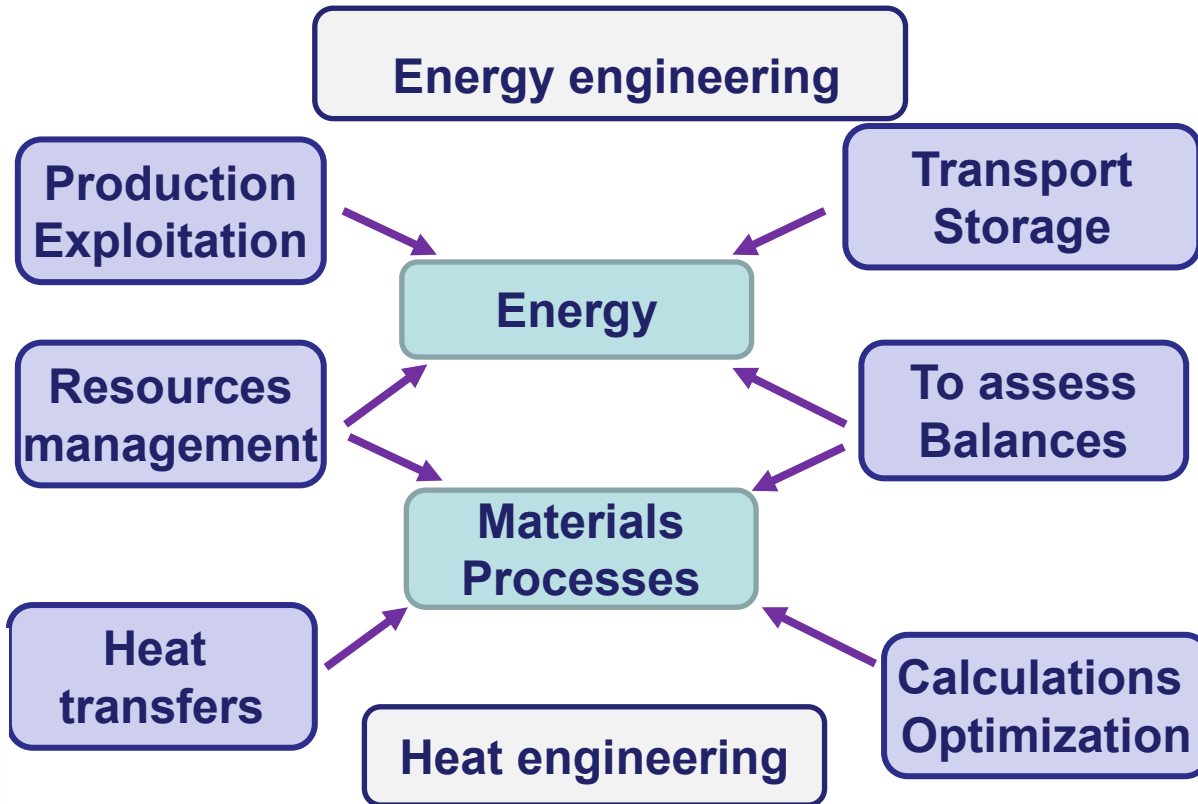
Energy engineering

The ESIREIMS Energy engineer

**is a Project Manager specialized in
Energy and Thermal engineering**



Energy balances of buildings and industries...



... to materials and
systems heat analyses.





Who is an ENERGY engineer?

He/She is a...

Project Manager
Business Manager

Energy efficiency

Thermal calculations

working on...

missions
work sites

such as ...

Fluids optimization

He/She evolves in...

Consulting firms

or in...

the industry

to provide answers to
objectives related to...

The COP21 Paris Agreement

The Green Growth Energy Transition
Act





Energy engineering jobs

Jobs

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...

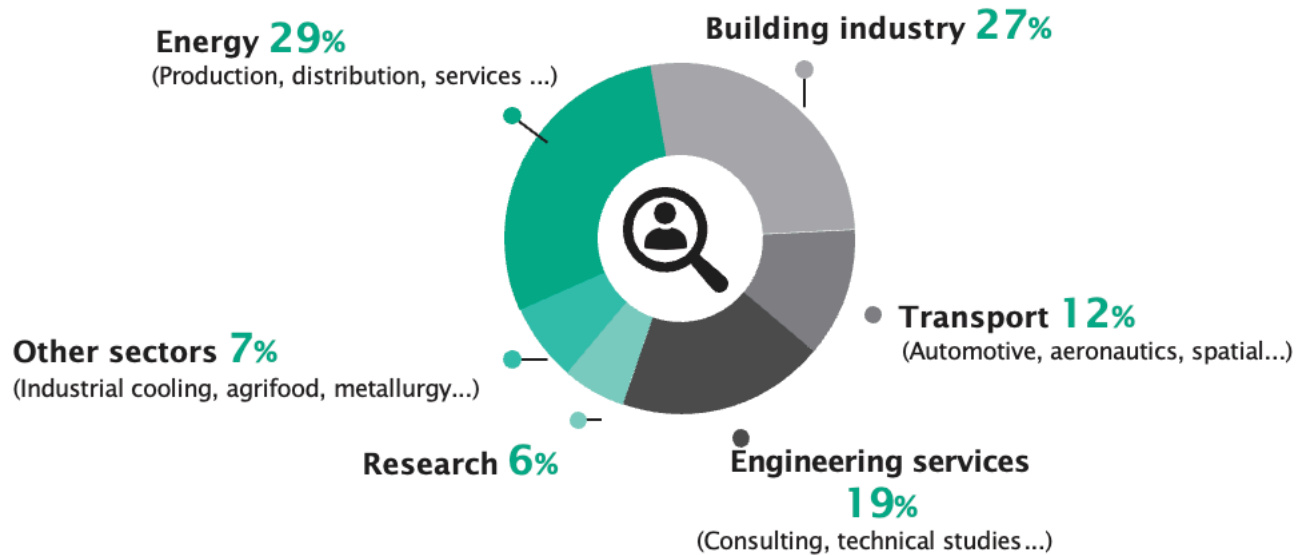
Ceramics and plastics

Injection, polymers, thermoforming...



Energy engineering jobs

Business sectors





Energy engineering occupational integration

**A training in Energy and Thermal engineering close to
industrial realities!**

53% Energy engineers – 37% Heat engineers - 10% others

Average time to find a job: 2 months

Average starting salary: €36,000 € (annual gross without bonuses) (2019)

Continuation of studies: 12% of PhD...





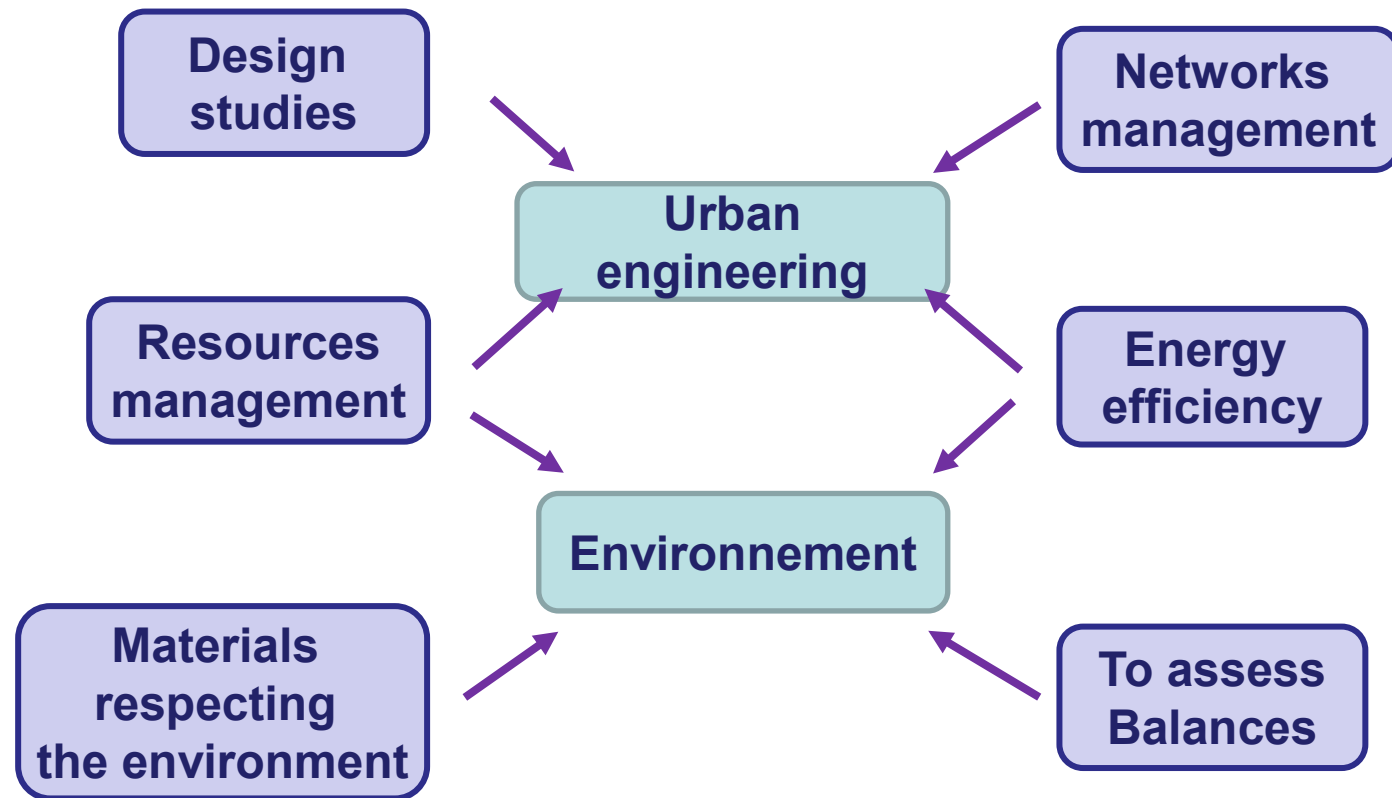
Environmental and urban engineering

**The ESIREIMS Urban and
Environmental engineer is**

**a Project Manager specialized in
Urban and Environmental
engineering**



Urban Engineering and the transition to territorial sustainability





Who is an Environmental and Urban engineer?

He/She is a ...

Project Manager

with good communication skills

polyvalent

He/She evolves in...

consulting firms

the building industry

the public service (collectivities, 'DREAL', 'DDT'...)

He/She works ...

in collaboration

with...

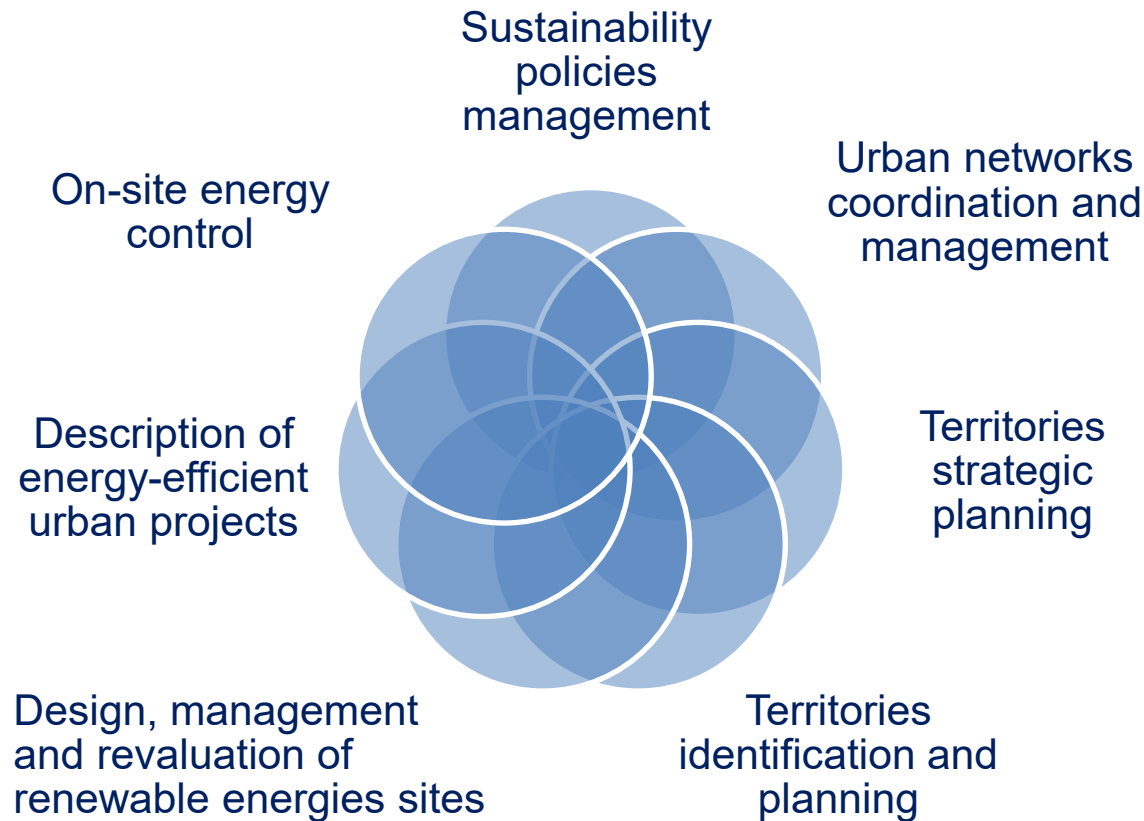
actors in urban planning

actors in territorial development



Environmental and Urban engineering jobs

Missions





Environmental and Urban engineering jobs

An answer to the emergence of new professions:

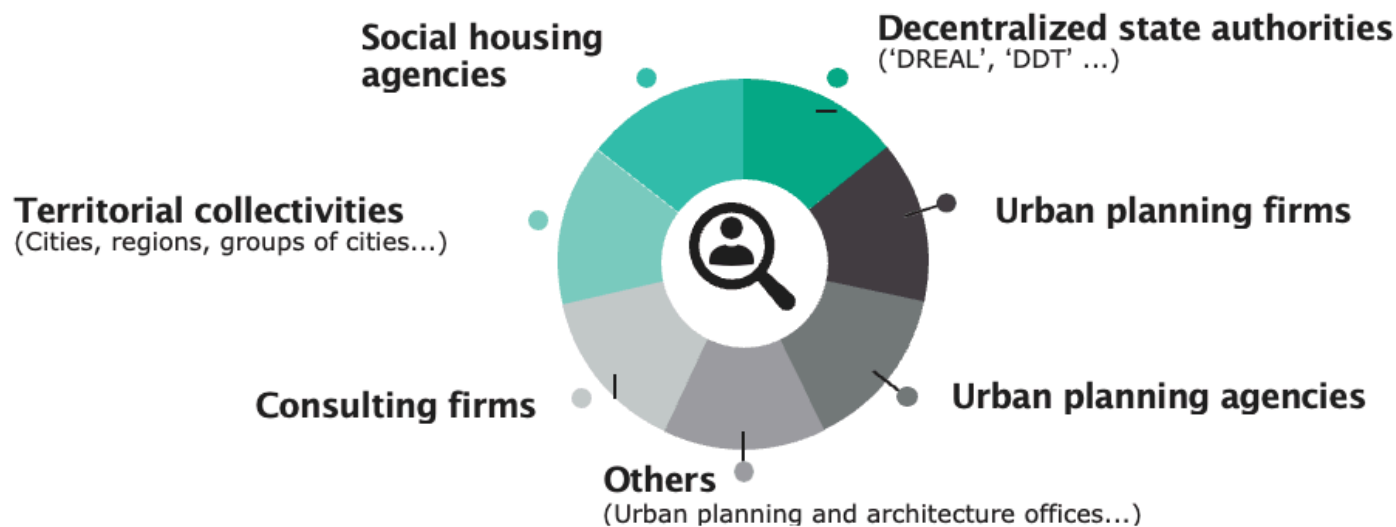
- Urban planning engineer
- Urban infrastructures planning Manager
- Project engineer – Urban planning and project management
- Districts energy strategy project engineer
- Territory energy planning engineer
- Environment/Energy market Researcher
- Renewable energy Manager
- Territories planning and environmental regulation project engineer
- Environmental Project Manager
- Environmental engineering Project Manager

Access to territorial engineer competitive exams



Environmental and Urban engineering jobs

Business sectors





Master's degree in Urban Planning “IATEUR”

The **IATEUR** (Reims Institute of Territorial, Environmental and Urban Planning) trains urban planners, taking sustainability into account. Our training program emphasizes the environmental dimensions of planning policies and the complexity of the different fields and techniques in **sustainable urban planning**.

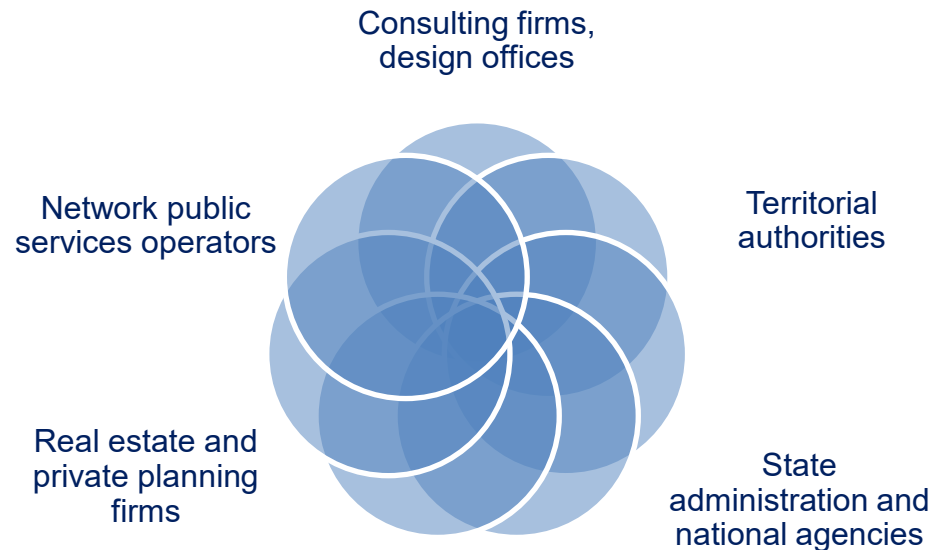
Students are taught contemporary evolutions and the development of new tools, as well as decisions systems and governance logics.

2 thematic majors are offered during the 2nd year: 1 / Temporal urban planning and town chronotopic approach; 2 / Urban planning in the countryside: agro-urban spaces reconfiguration.

We have developed several **international partnerships** which enable students to be trained abroad as well, and to obtain a **double degree** at the University of Venice (IUAV).

Who is an urban planner?

The urban planner is an **expert in urban and territorial creation and operation**. He/she coherently organizes spaces while having a global and/or localized reflection. Trained to have a **cross-disciplinary vision** which takes spatial, environmental and socio-economic concerns into account, he/she analyzes, offers and designs territorial planning.



Master's degree in Sustainable Urban Planning

- At the end of their studies, after having a lot of professional experiences, students will be able to become Operations Managers and Project Managers in public or private structures such as territorial authorities, regional services, urban planning firms, urban planning agencies or consulting firms.
- Our Master's degree also offers the possibility to pursue studies to get a **PhD**.
- **Some jobs examples:**
 - Environmental, Energy... operations Manager;
 - Operational urban planning Project Manager;
 - Territorial development Project Manager;
 - Real Estate Manager;
 - Market Researcher in design offices.



Occupational integration

Master's degree in Sustainable Urban Planning

- 80% of our students find a job within the 6 months after their graduation. Indeed, thanks to workshops and internships, they are ready to work very quickly and our training and degree have been well-known for about 50 years among urban planning professionals.
- Our training program has been certified by:
 - **APERAU** (Association for the Promotion of Research and Studies in Urban Planning);
 - **OPQU** (Professional Office of Urban Planners Qualification);
 - **AESOP** (Association of European Schools of Planning).

iateur

Université de Reims Champagne-Ardenne





In-company training program

More than 20 programs intended for industrialists - 1 day to several days/weeks courses:

*Packaging introduction - book of specification,
Packaging certification and qualification protocol,
Materials (wood-paper-cardboard), industrial design, metal materials,
Corrosion and metal protection, plastic materials, interactions,
Glues and adhesives, printing techniques - colorimetry,
Plastic packaging recycling and the environment,
Design: the visible face of packaging
Biosourced and biodegradable plastic materials,
Smart packaging, techniques and machines, barcodes
Energy and Thermography, Metrology...*

- Contracted and **customizable** programs
- From September to July.
- Estimate on request

Stéphanie Odof, in charge of Continuing Education

stephanie.odof@univ-reims.fr





APEL / VPE

- **VPE:** validation of professional experience to pursue studies to get a Master's degree in Sustainable Urban Planning or a Packaging Engineer diploma or an Energy Engineer
 - After passing a commission, possibility to follow the university curriculum for engineering degrees without having the necessary prerequisites.
- **APEL:** accreditation of prior experiential learning to obtain a Packaging Engineer diploma or an Energy Engineer diploma
 - Admissibility
 - Report redaction
 - Oral presentation in front of a jury of experts

Information:

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ESIREIMS also...

Participates in Packaging design contests:

PACKAGING PIDA: Packaging Impact Design Awards
Oscars de l'Emballage



Participates in packaging design national projects:

Example: F.R.I.P.E /EMMAUS with containers to collect second-hand clothes in companies...



ESIREIMS is also about...

The Ice box Challenge in Reims: a unique event in France

A scientific experiment conducted at the heart of Reims!

Thermal comfort
proved by ice!



iceboxchallengereims.fr



ESIREIMS is also about...

very dynamic
school projects!





ESIREIMS also has...

ALUMNI networks in France and abroad

- **AMPAC** (Packaging Alumni network) more than 1,000 graduate members all around the world
- **ATHER** (Energy Alumni network)
- **Associ'ateur** (IATEUR Alumni network)

Industrial partners

- ESIREIMS Gala sponsors
- Interns recruitments
- Research and development, and consulting services
- In-company trainings
- Test services...



ESIREIMS is also about...

festive graduation ceremonies!





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[ESIREIMS presentation video](#)

[40th anniversary video](#)

[Virtual tour](#)





Open day February 3, 2024



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