



LE HAVRE UNIVERSITY

Created in 1984

Middle sized university

- ◆ **478 Professors and assistant professors**
- ◆ **7000 Students (foreign : 16%)**
- ◆ **230 PhD students**
- ◆ **324 Engineers, Technicians & administratives**

<http://www.univ-lehavre.fr>

A university in the city

- ◆ **In harmony with its region**
- ◆ ***A human size***
- ◆ ***At the heart of the town***
- ◆ ***By the sea***
- ◆ ***In a region rich in history and culture (NORMANDY)***

L'organisation et le fonctionnement (2)

L'équipe de direction



President : Camille Galap
(since February 2005)

Vice-presidents...

Administration board: Alban Bourcier
Pascal Reghem
Eliane Talbot



For research : Moulay Aziz Alaoui



Academic affairs : Emmanuelle Annot



Les chargés de mission :

Alban Bourcier, Agenda 21 d'établissement

Eliane Talbot, langues

Serge Vittecoq, accueil des personnes handicapées

Le secrétaire général : Christian Quentin

Oriented areas (but not limited to):

- **Logistics**
- **Complex systems**
- **International affairs**
- **Ecotoxicology**
- **Renewable energies**
- **Composite materials**
- **Ports and costal engineering**



LE HAVRE UNIVERSITY

5 schools :

- **Faculty of Humanities** :3-5-8 year courses
- **Faculty of International Affairs** : 3-5-8 year courses
- **Faculty of Science and Techniques** : 3-5-8 year courses
- **ISEL : Higher Institute for Logistics Studies**,
5 year engineer's course
- **Institute of technology** : 2 (or 3) years courses



LE HAVRE UNIVERSITY

FAI - The Faculty of International Affairs :

- Law
- Economics & Management
- Business & Trade
- International trade
- Translation
- English.



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LSH - The Faculty of Humanities :

- History
- Geography
- Planning
- Sociology
- Language and Literature.



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FST - The Faculty of Sciences and Technology :

- Mathematics
- Computer Science
- Physics
- Chemistry
- Biology
- Engineering (physics mechanical engineering, civil engineering, electrical engineering, maintenance) ₈

IUT- The Institute of Technology :

- Social Studies
- Civil Engineering
- Management & Business Administration
- Electrical
- Computer Science
- Logistics and Transport
- Mechanical and Industrial Automation Engineering
- Health, Security and Environmental Studies
- Communication Studies
- Marketing Techniques

ISEL - Higher Institute for Logistics

- The first cycle **'preparatory cycle' (2 years)** .
 - ✓ dual competence in Science of Engineering and Science of Management.
- The second cycle **'engineer cycle' (3 years)**.
 - ✓ In the 4th year, students can choose one of two options:
"global logistics" or "information system applied to logistics".

The course covers all aspects of logistics : port activities, packaging, waste management, flow, storage and supply of goods, together with business management and business law.

International calling

12 : We offer 12 foreign languages
(6 orientales languages)



English, German, Spanish, Italian, Portuguese, Russian, Arabic, Korean, Chinese, Japanese, Malay-Indonesian,
(at the institute of Orient and Languages and Civilizations)

16 % foreign Students (2007/2008)

6 % of the student body realise an internship or part of their curriculum abroad

80 conventions (partnerships)
of which 60 within the SOCRATES program

3 double-diplomas





LE HAVRE UNIVERSITY

Le Havre University courses belong to 4 broad 'areas':

- **Law**
- **Humanities, social Sciences, literature, languages**
- **Economics, management, trade**
- **Sciences and technologies**



LE HAVRE UNIVERSITY

- The **Master's** degree is obtained at the end of 4 semesters after the 'Licence'.

There are two kinds of Masters :

- Research Masters leading on to the PhD
- Professional Masters leading on to professional life

- The **Ph.D.** takes 3 years in a university research laboratory or in a research institution.

Professional Masters in International Affairs :

- **International banking and finance : bilingual diploma**
- **Translation and communication : bilingual diploma**
- **International logistics**
- **International transports**
- **Trade with Asia**
- **Trade with Latin America**

Research Masters of Sciences & Technologies

- ✓ in fundamental and applied biology : **Cellular Biology**
- ✓ in **Mathematics and Computer Sciences:**
 - Mathematics and computer sciences applied to complex systems
- ✓ **In Electrical System and electrical energy**
 - Systems and electrical energy
 - Microelectronic signal waves
- ✓ **In Chemistry**
 - Organic chemistry
 - Polymer and surfaces: structure and function
- ✓ **In Mechanical Physics and Civil Engineering**
 - Energy, fluid and environment
 - Mechanic of solids and couplings

Professional Masters of Sciences & Technologies

- **in Fundamental and applied Biology :**

- Environmental risk assessment - chemical risks

- **in Mathematics-computer science :**

- Distributed object system
- Mathematical actuarial and engineering in finance and insurance

- **in Electric signal waves systems :**

- Genetic of electrical energy systems
- Safety of industrial systems operations
- No destructive evaluation, waves, signals

- **in Chemistry :**

- Fragrances and cosmetics : formulation, chemical and sensorial analyses

- **in Mechanical Physics and Civil engineering :**

- Conception and characterization of structures in composite materials
- Ports and coastal engineering
- Diagnostic and rehabilitation of daily architectures
- Control of energy

Research Activity

4 Domains of Research

Human & Social Sciences
Mathematics – Computer Science
Sciences for Engineering
Chemistry – Biological Sciences

4 Topics for Interdisciplinary Researches

Industrial Risks
Logistics & Transports, complex systems
Estuarine areas & Environment
Geopolitical & Cultural Goals of the Contemporary World

Research Laboratories / 1

Social Sciences and Humanities

- ◆ Interdisciplinary Research Center in Transports and International Affairs (CIRTAI, CNRS)
- ◆ Research Group on Identities & Cultures (GRIC)

Research Laboratories / 2

Law, Politics, Economics and Business Sciences

- ◆ **Research Group on Fundamental, International & Comparative Law (GREDFIC)**
- ◆ **Center for Study and Research in Economics & Logistical Management (CERENE)**

Research Laboratories / 3

Mathematics

- ◆ Le Havre Laboratory of Applied Mathematics (LMAH)

Computer Sciences

- ◆ Le Havre Laboratory of Computer Sciences (LITIS)

Research Laboratories / 4

Sciences for Engineering

- ◆ **Laboratory of Waves and complex Pbs (LOMC, CNRS)**

**Ultrasonic Acoustics and Electronics +
Mechanics, Physics & Geoscience**

- ◆ **Le Havre Research Group in Electronics and Automatics (GREAH)**

Research Laboratories / 5

Chemistry

- ◆ Research Unit of Organic & Macromolecular Chemistry (URCOM)

Biological Sciences

- ◆ Laboratory of Ecotoxicology - Aquatic Ecosystems (LEMA)



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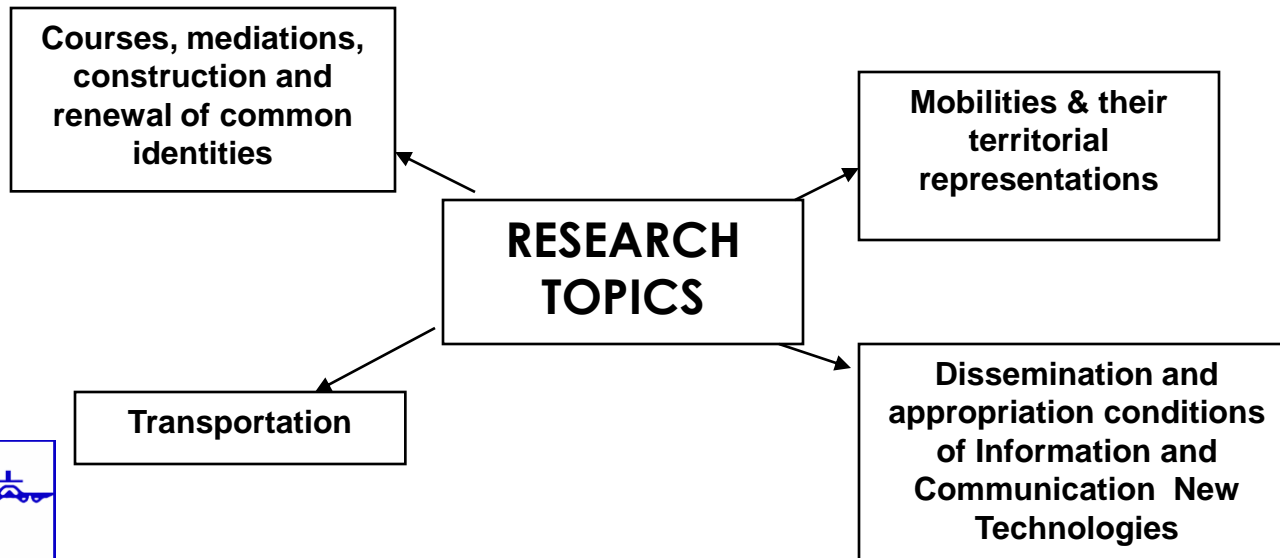


INTERDISCIPLINARY RESEARCH CENTER IN TRANSPORTS AND INTERNATIONAL AFFAIRS (CNRS 6063 RESEARCH JOINT UNIT)

CIRTAI is a member of **IDEES UMR Research Joint Unit of CNRS (National Center for Scientific Research)** based in Caen, Le Havre and Rouen Universities (Normandy).

Academic Research Activities come under interconnected concerns belonging to 8 definite academic disciplines: transport economics, territorial management, geography, history, political sciences, sociology, labour economy and foreign languages – which are gathering around four main Research Axis:







LE HAVRE UNIVERSITY

College of International Affairs

**Center for Study and Research in Economics
& Logistical Management
CERENE**

Work Economics & Applied Microeconomics

Work market rigidities

Efficiency of public politics

Workers vs employment adequacy

Health, development & welfare microeconomics

Finance, International Economy & Area (spatial) Economy

Constitution of supranational economical areas

"Regionalization" of global economy (Europe, Eastern Asia)

Management & Logistical Information Systems

Supply Chain Management (Inter-organizational global logistics)

Development of concepts and softwares



LE HAVRE UNIVERSITY

College of International Affairs

**Research Group on Fundamental, International &
Comparative Law
GREDFIC**

2 Domains of Research or Activity:

- ◆ **Studies on foreign legislations and rules, European Community law, and international law**
- ◆ **Studies on public liberties and fundamental rights of human being, in France and abroad**

5 Research Topics:

- **Translation and comments on recent foreign texts of law**
- **Analysis and comparison of foreign juridical systems**
- **Studies on European law and international law**
- **Survey and analysis on the evolution of public rights in France and abroad**
- **Presentation of French juridical system for foreigners**



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College of Sciences & Techniques

**Le Havre Laboratory of Computer Science
LITIS**

Topics:

**Evolutionary Systems for Biology and Environment
Distributed and complex computational systems
Systems for Real-Time Gestion of Data Bases**

Applications:

**Global logistics, complex systems
Decision making in business
Computerization of biological and environmental processes
Neuronal multi-agents
Technological risks – Crisis prevention
Car traffic management**



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College of Sciences & Techniques

Le Havre Laboratory of Applied Mathematics (LMAH)

Topics:

Dynamical systems and Evolutionary Problems

Optimization

Statistics

Applications:

Logistics

complex systems

biological and environmental processes

Neuronal oscillations

Car traffic management

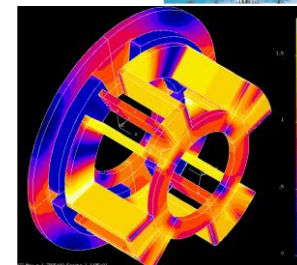
Le Havre Research Group in Electronics & Automatics GREAH

Research Topics:

- Convertor / Machine Systems
- Convertor / Electric Network Systems
- Security of System Functioning
- Computerization of Neural Command

Applications:

- Renewable energy
- Special electric machine
- Manipulating and mobile automats





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College of Technologies

Laboratory of OMC -FRE CNRS-

The LOMC is studying :

1) Ultrasonic Acoustics and Electronics

- Propagation of guided ultrasonics waves in layered media.

(Questions like bonding, influence of the roughness, detection of defects are adressed. The studied structures can be composite materials or metals. Many acoustic signal processing are used. New studies are now performed in air with air coupling transducers).

- Problems of acoustic scattering are also of interest. (For example, many works on the detection of immersed targets by means of the detection and the analysis of the resonances).

- Scattering of ultrasonic waves by complex objects, when multiscattering occurs, (both on the experimental and theoretical points of view).

2) Mechanics, Physics & Geoscience

Instabilities, Turbulences & Plasmas

- Non linear Physics (Hydrodynamics)
- Fluid/solid interactions
- Atomic collisions in plasmas

Computational Fluid Mechanics

- Naval hydrodynamics
- Aeroacoustics of aerial sails
- Aerodynamics for plane engines (pushing invertors)

Porous Structures

- Coastal engineering
- Composite materials



LE HAVRE UNIVERSITY

College of Sciences & Techniques

Research Unit in Organic & Macromolecular Chemistry

URCOM

Organic chemistry

1. Chemistry of N-acyliminiums ions.
Access to polyhydroxylated alkaloids (antiglycosidase, antitumor and antiviral activity).
Access to polycyclic heterocyclic compounds (CNS and antitumor activity).
2. Design and study of new class of molecular receptors based on calixarene framework capped by an aza-cryptand (supramolecular chemistry, chiral recognition, molecular probe).



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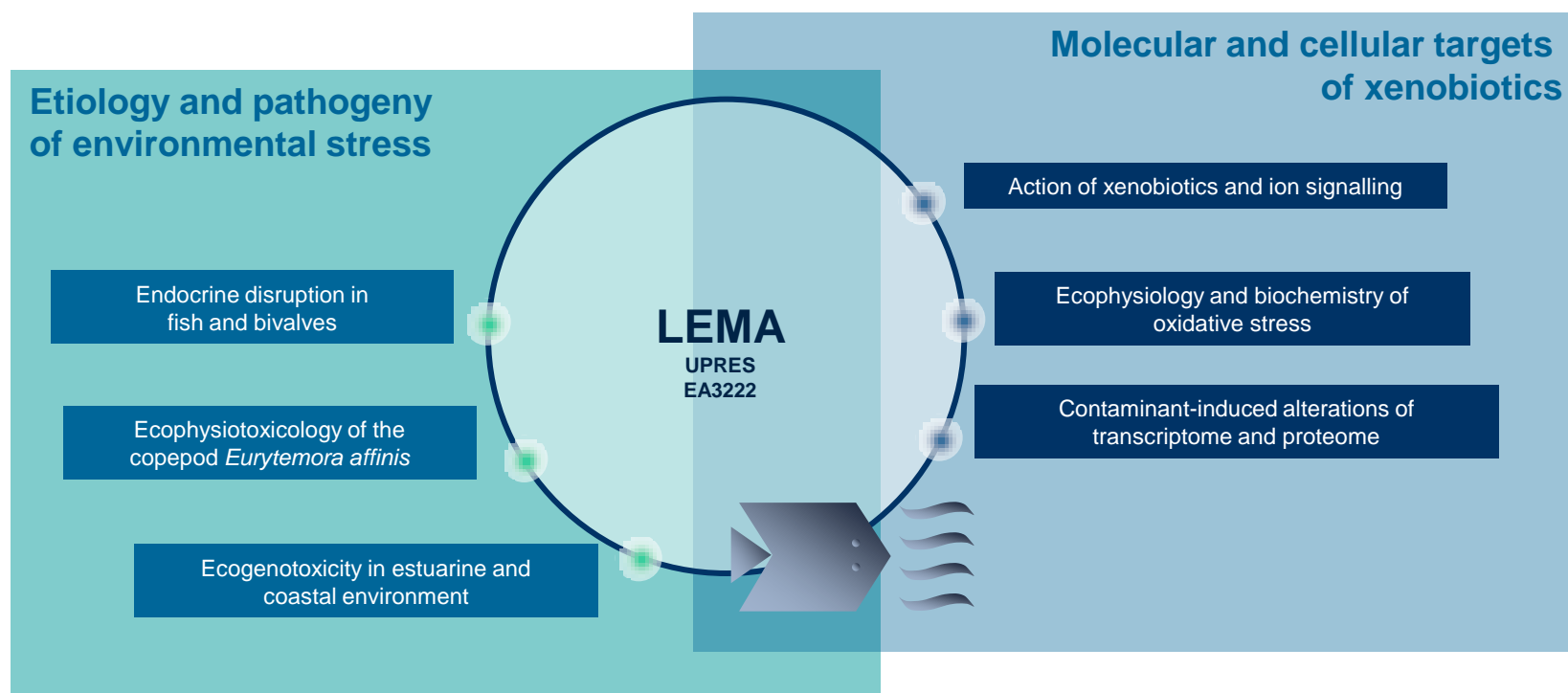
College of Sciences & Techniques

URCOM

Macromolecular Chemistry

1. New biodegradable composite materials based on flax reinforcement (Applications: automotive, packaging) (link with Inha University)
2. Surface-interface properties of composite materials to control adhesive properties (applications: automotive, aerospace)
3. Sensory and rheological analysis of cosmetic products
4. Release behavior of volatiles from model aqueous matrixes (applications: food, cosmetics, perfume).

Laboratory of Ecotoxicology – Aquatic Ecosystems LEMA



LEMA

Endocrine disruptions in
fish and bivalves

Ecophysitoxicology of the
copepod *Eurytemora affinis*

Ecogenotoxicity in estuarine
and coastal environment

1. Construction of trangenic yeasts as biotests of genotoxicity of environmental matrix
2. Epidemiology of tumors in European flounder from the Seine bay

Etiology and pathogeny
of environnemental
stress

Histopathology
Chemical analysis
Assays of biomarkers
FACIM
Molecular Biology

LEMA

Action of xenobiotics and ion signalling

1. Coupling between cellular detoxification and ionic conductances
2. Calixarens as molecular traps for organic contaminants

Ecophysiology and biochemistry of oxidative stress

1. Influence of intertidality on the induction of anti-oxidative mechanisms in *Mytilus edulis*, in natural or simulated conditions, and when exposed to xenobiotics
2. Biochemistry of oxydative stress enzymes

Contaminant-induced alterations of transcriptome and proteome

1. Effects of contaminants on the transcriptome of bivalves
2. Alterations of protein expression in marine invertebrates

Molecular and cellular targets of xenobiotics

Transcriptome
ADN arrays
Real time PCR
Proteome
Biochemistry of proteins
Enzyme activities
Cell culture
Ecophysiology
Electrophysiology

Applications:

Environmental monitoring
Chemical risk assessment
High throughput molecular screening

THANK YOU FOR YOUR ATTENTION



<http://www.univ-lehavre.fr>