



CEA List is an institute of CEA Tech, the technology research division of the French Alternative Energies and Atomic Energy Commission (CEA). List conducts R&D programs on smart digital systems with a focus on artificial intelligence, cyberphysical systems, cybersecurity, the Factory of the Future and e-healthcare. With activities at the intersection between basic science and industrial research and development, List's nearly 1,000 scientists, engineers, and technicians on campuses in the Greater Paris and Grenoble areas are addressing some of the major challenges facing our economy and society.

[www-list.cea.fr/en/](http://www-list.cea.fr/en/)

## DIGITAL SYSTEMS FOR INDUSTRY

### Driving innovation

List's digital systems research is among the most advanced in the world, and the institute's technologies address virtually all industries.

List became a member of the Carnot Network in 2006. As a Carnot Institute, List engages in innovation partnerships with more than 200 companies (50% of which are SMBs) every year.

The institute leverages innovation and technology transfer to help make businesses more competitive. List's unique strengths reside in its portfolio of patented enabling technologies, an "innovation integrator" approach to creating solutions, and advanced technology platforms.

### Know-how

- Robotics
- Virtual reality, vision systems
- Non-destructive testing
- Instrumentation, metrology
- Sensors and signal processing
- Communication and human-machine interfaces
- Artificial intelligence
- Multimedia and data processing
- Software engineering
- Systems engineering
- Hardware/software systems design
- Computing architectures
- Digital trust
- Quantum computing

### Target Markets

- Food manufacturing
- Transport and mobility
- Manufacturing
- Security
- Electronics/digital infrastructure
- Software
- Digital/media/services
- Medtech
- Fashion and luxury goods
- Nuclear
- Transportation and mobility
- Smart city, smart life
- Banking of finance





## Technology platforms

List currently has 15 technology platforms that are home to tech experts, software, and advanced equipment. They are designed to provide the flexibility and confidentiality our partners need for their innovation projects. Especially:

- Artificial intelligence: Factory IA (AI Factory), Data intelligence
- Electronic architecture design including N2D2 for AI
- Manufacturing: collaborative robotics, Gerim (non-destructive testing), SACHEMS (structural health monitoring) or CISLAB (digital instrumentation)
- Health: DOSEO
- Cybersecurity
- Software and systems engineering: Frama-C, Papyrus, Max (blockchain)

## An ecosystem of partnerships

List is part of a broad ecosystem of partnerships, including scientific research partnerships with academic institutions like Paris-Saclay University and Institut Polytechnique de Paris. List also has access to other technological know-how through multi-partner R&D projects labelled by clusters Systematic, Cap Digital, Mov'eo, and Medicen. The institute is a founding member of DigiHall, the Ile-de-France region's center for excellence in digital technology.

List is actively engaged in European research, with more than 100 multi-partner projects (EIT Manufacturing, Digital and Health, PPP ECSO and Robotics, JU Ecsel, and more).

Finally, the institute's open innovation policy supports partnerships with companies in Europe, Japan, and North America.

## Key figures

**Permanent staff**  
(full-time equivalent): 551  
**PhD Students:** 109

**Partnership incomes**  
with industry: €47M  
**Global budget:** €84M

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