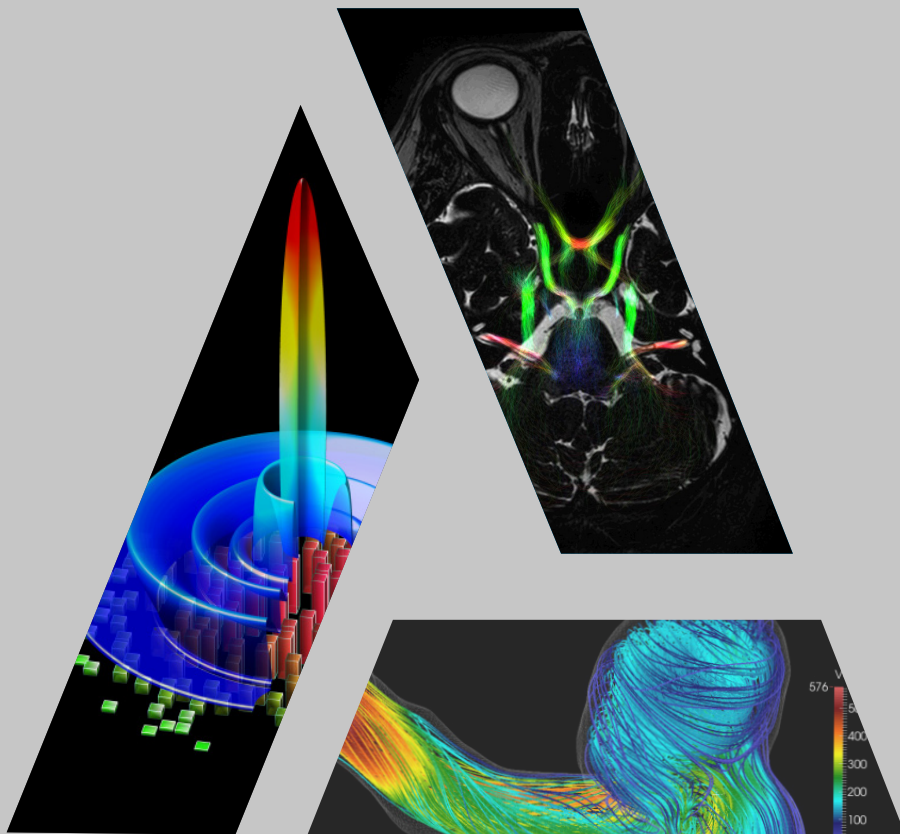


CREATIS



**Centre de REcherche en Acquisition
et Traitement de l'Image pour la Santé**

CNRS UMR 5220 - INSERM U1206 - INSA LYON - UNIVERSITÉ LYON 1 - UJM SAINT-ÉTIENNE

WHO ARE WE?

CREATIS is developing its research in the field of **health technology** and brings together experts in **medical radiology**, **engineering** and **signal and image processing**. Its **multidisciplinary teams** conduct both upstream and translational research using the laboratory's and the hospital's **technological platforms**.



5
research teams

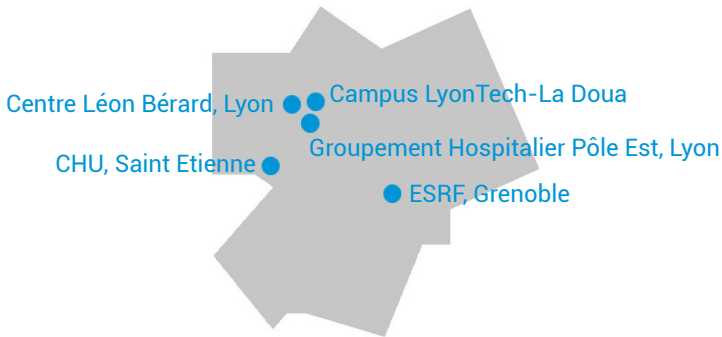
180
members

7 600 000
euro annual
budget

3
platforms

200
A-rank
publications
each year

5
supervisory
institutions: CNRS,
INSERM, INSA Lyon,
UCB Lyon 1 et UJM
Saint-Étienne



The Corpuscular Optics
Laboratory (LOC) is created
by Prof. Goutte

1957

The unit is established
at the ESRF in Grenoble

1994

The NMR and CREATIS
laboratories merge

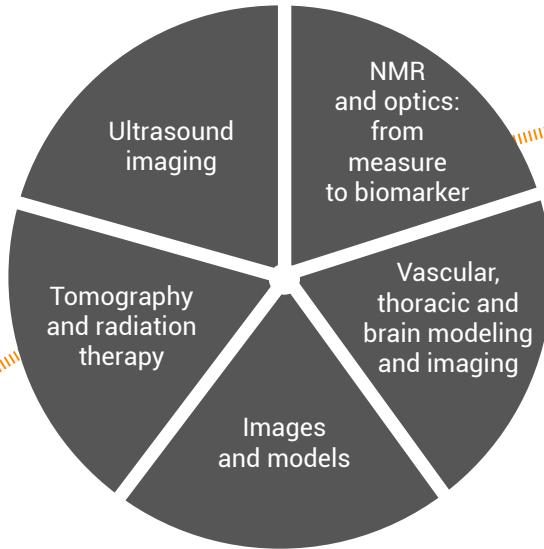
2007

1972
The LOC becomes
the Laboratory for Signal Processing
and Ultrasound and is partnered with
the University Hospital Radiology Unit
led by Prof. Amiel

1995
The laboratory
becomes CREATIS

2020
The LyonTech-La Doua
site is brought together
in new facilities

OUR RESEARCH TEAMS

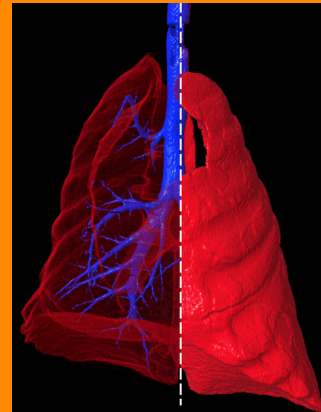


CREATIS contributes to the field of personalized and predictive medicine through the development of various imaging techniques used in diagnosis, monitoring, and now in predicting the course of the disease and its response to treatment. Our research is rooted in clinical practice and has a lot to bring to the future of medicine.

Olivier Beuf // Director of the CREATIS Research Center

EXAMPLES OF PROJECTS:

- **MUST:** Conducted in 2014 during the Le Tor des Géants Mountain Ultra-Marathon, MUST used MRI and ultrasound to investigate major inflammatory responses and muscle and cardiac changes in extreme stress conditions.
- **SPCCT:** CREATIS and Philips partnered in creating the European H2020-SPCCT project aiming to develop and approve a quantitative imaging technology that combines spectral computed tomography and dedicated contrast agents to detect, characterize and monitor neurological and cardiovascular diseases.
- **Fast 3D ultrasound imaging:** In 2017, CREATIS became one of three centers worldwide that offers fast 3D ultrasound imaging. This project was made possible by its close collaboration with LABTAU.



PARTNERSHIPS, RECOGNITION AND INNOVATION

CREATIS conducts research alongside many academic and industrial players, at local, national and international level. These projects conducted with top research teams yield innovative results. CREATIS highlights these results in translational research or with industrial transfer to major players in medical imaging and local SMEs.



72
projects
funded
since 2015



20
industrial
partners, on
average



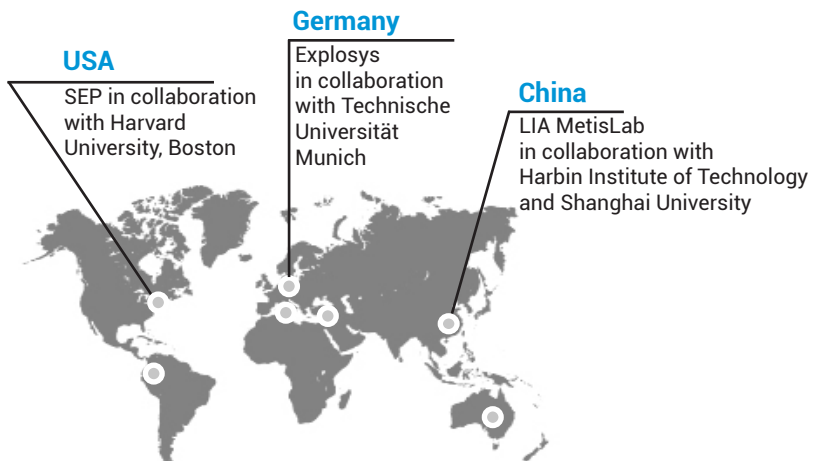
51
% of PhD
students
from abroad

INVESTMENTS FOR THE FUTURE PROGRAM

- LabEx PRIMES and CeLyA
- CPER 11,7 Tesla
- RHU: Marvelous and Perfuse
- INCA: LYriCAN Project
- MANUTECH-SLEIGHT Graduate School of Research

START-UPS AND CO-DEVELOPMENT

- HawkCell
- CIRMA
- AIGEN
- Theralys (Bioclinica)

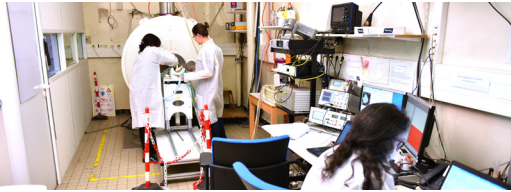


SERVICE PLATFORMS

MULTIMODAL IMAGING PLATFORM

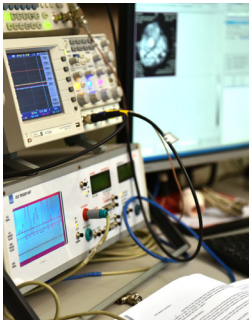
PILoT

PILoT is an innovative multimodal imaging platform that brings together MRI, optics and ultrasound. It is located on the LyonTech-La Doua campus, and enables its academic and industrial users to find the best methods and techniques to answer to complex questions thanks to the multidisciplinary approach taken by the PILoT team and the expertise of CREATIS researchers.



Its aims are :

- Contributing to scientific progress in methodological research and research applied to living organisms at the mesoscopic to microscopic scale
- Providing measurement and quantification services for anatomical, physiological and functional data with our staff trained in animal experimentation and well-being
- Implementing new acquisition methods to address needs.



5
people on staff

3
imaging modalities:
MRI, optics and
ultrasound

400
half-days
of project support

VIP PLATFORM



The VIP, or Virtual Imaging Platform, is a web portal for medical simulation and data analysis. It uses the resources available in the biomedical virtual organization of the EGI e-infrastructure to provide a service available to researchers all around the world.

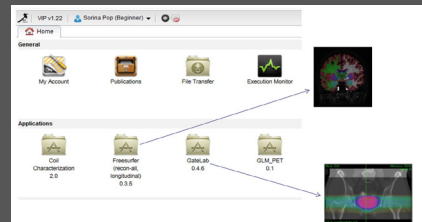
Its aims are:

- Providing easier access to distributed computing resources
- Making it possible to share applications and data on an international scale for open, reproducible research

20
applications available as services

1 000
registered users

44
publications by VIP users who have
been using the platform to generate
their results since 2011



CREATIS



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