Our missions

GISMO (Geochemistry and ISotopics MethOds) is a technological Facility which propose services in Geosciences and Environmental Sciences domains in help with isotopic geochemistry and geomaterial characterization competences.

Support private and public research
collaborations, service delivery

Technology transfer to the private
Research & Development projects

Develop
analytical tools and methods

Analysis and measures
in isotopic geochemistry and XRD

Accompagny our customers
throughout their project

Contract monitoring

Initial contact	Listening	Development	Realization	Report
Mail Website Videoconference GISMO visit	Identify Analyze	Service delivery R&D project Collaboration	Deadline respect Reactivity Inform	Raw results Interpretation

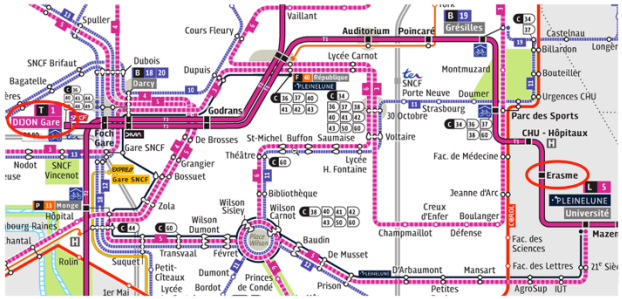
They are the actors of GISMO

12 researchers, specialized to a specific research domain

5 engineers and technicians,

Welience Agro-environnement :

- helps GISMO in technology transfert
- offers expertise on :
  (1) soils biological quality,
  (2) Plant Health and genetic, and
  (3) Molecular markers of plants and microbes



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GISMO
Technological Facility

Offer you our expertise to provide adapted solutions and accompagny you during your projects in Geosciences and Environmental Sciences domains.

ISOTOPIC GEOCHEMISTRY AND GEOMATERIAL CHARACTERIZATION

Services

The technological facility GISMO performs routinely analyzes and develops analytical tools and methods in order to propose adapted solutions to your needs, in different scientific domains :

Environment

Identification of organic compounds at molecular scale in soil organic matters
Identification of organic compounds
Soils : PLFA, lignin's phenols

Impact of organic compounds on soil and organic matter dynamics
Elemental and isotopic analyzes
Soils, organic products, gas

Comprehension of physico-chemical and biological processes
Isotopic labelling or natural abundances
Balance and yield of processes
In- and organic samples (^{2}H, ^{13}C, ^{15}N, ^{18}O, ^{34}S)

Vitiviniculture

Stress water monitoring of vineyard and wine
Soil and ^{13}C isotopic analyzes
Soil, Grape must, Ethanol, Glycerol

Natural Geomaterials

Characterization and semi-quantification of natural mineral matrices
X-Ray Diffraction
Rocks, sediments, soils

Oil Reservoirs & Aquifers

Study of carbonated reservoirs
Formation, diagenesis and properties
Oil reservoirs, Aquifers and CO_2 stock

Palaeo-environments

Reconstitution of palaeo-environments and oceanic palaeo-circulations
^{18}O isotopic analyzes
Rocks, waters and archaeologic objects

Organic Domain

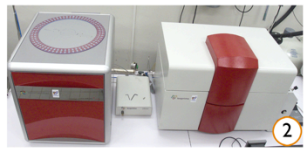
(1) IRMS-GC-C
Gas chromatograph linked to a combustion unit and an isotopic-ratio mass spectrometer
Separation, characterization and quantification of individual organic molecules

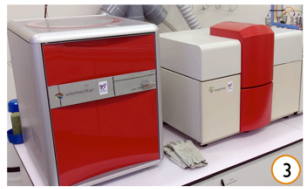
In/Organic Domains

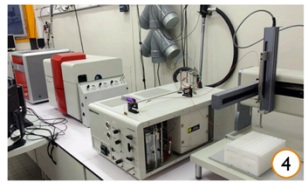
Isotopic-ratio mass spectrometer (IRMS)

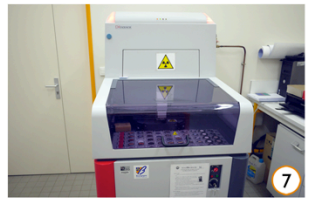
(2) IRMS-EA
linked to an elemental analyzer, VarioMicrocube
Measures of H, C and N contents and C and N isotopic compositions

(3) IRMS-PYRO
linked to an elemental analyzer, Pyrocube
Measures of O and S contents and isotopic compositions









Inorganic Domain

Isotopic-ratio mass spectrometer (IRMS)

IRMS-TG (4)
linked to a Trace-Gas
Isotopic analyzes of gas from atmospheric fractions or incubations (CO_2, CH_4, N_2, N_2O)

IRMS-Dual-Inlet (5)
Multicarb : C and O isotopic compositions of carbonates
Aquaprep : H and O isotopic compositions of waters

IRMS-KIEL IV (6)
linked to a KIEL IV Carbonate Device
Measures of C and O isotopic compositions of tiny carbonated samples

XRD (7)
X-Ray Diffraction
Characterization and semi-quantification of mineral and clay fractions