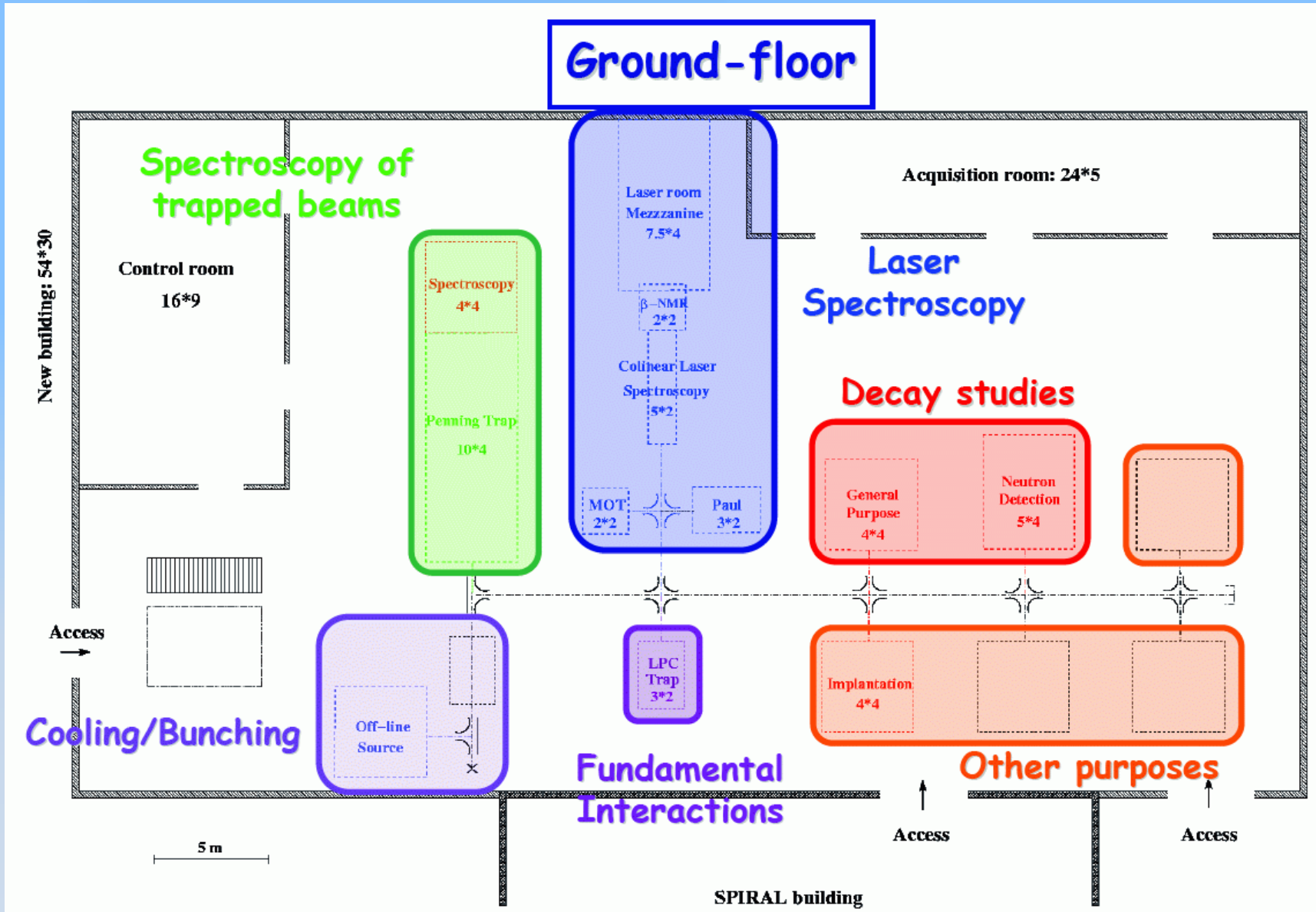
Bertram Blank
DESIR – EQUIPEX Kick-off meeting
Orsay, March 29, 2013

DESIR History

- **July 2005:** Workshop on « Physics with separated low-energy beams at SPIRAL2 » (about 90 participants)
- **Jan. 2006:** First Collaboration Committee Meeting
  - ➔ DESIR = Desintegration, excitation et stockage d'ions radioactifs
  - ➔ RFQ and HRS
  - ➔ LUMIERE
  - ➔ 1500 m^2 experimental hall
  - ➔ Spokes-person and GANIL liaison
- **July 2006:** DESIR Letter of Intent
- **Jan. 2009:** DESIR Technical Design Report
- **May 2010:** DESIR Physics Workshop in Leuven
- **Dec. 2010:** LOIs for experiments at DESIR
- **Dec. 2011:** Funding via EQUIPEX
- **Jan. 2012:** Signature of the DECA by 14 parties
- **March 2013:** Kick-off for EQUIPEX-DESIR

DESIR: first hall layout



J.-C. Thomas

DESIR Collaboration Agreement DECA

French Institutes	Cost
PIPERADE: CENBG (200 m.m), CSNSM (80), GANIL (10) - ANR, Région Aquitaine	1200 k€
LPCTrap: LPC Caen (10 m.m)	500 k€
Neutron-ToF : LPC Caen (15 m.m)	280 k€
LUMIERE : IPN Orsay	310 k€
BEDO : IPN Orsay (40 m.m)	250 k€

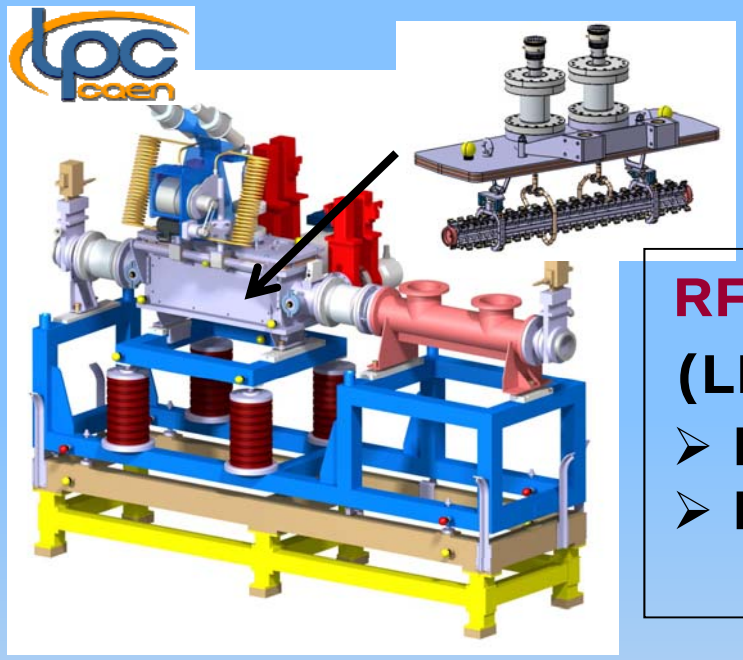
European Partners	Cost
MLLTrap: LMU Munich (18 m.m)	700 k€
LUMIERE: Univ Manchester (12 m.m)	220 k€
LUMIERE: IKS Leuven (12 m.m)	300 k€
TAGS, BELEN, Neutron-ToF: CSIC, CIEMAT, UPC – Spain (42 m.m)	1050 k€
TETRA: FLNR JINR Dubna (16 m.m)	300 k€

Total: 5 M€

Parties: 14 owners of DESIR experimental equipments

Commitment: ~5 M€ & 520 man.months

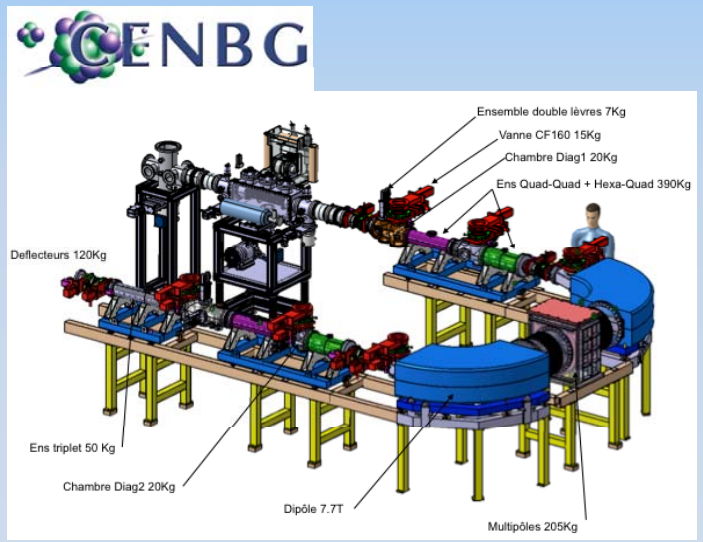
SHIRAC and HRS



RFQ – Cooler

(LPC Caen – CSNSM-GANIL/SPIRAL2)

- **Extraction optimisation**
- **Energy spread and emittance optimisation**

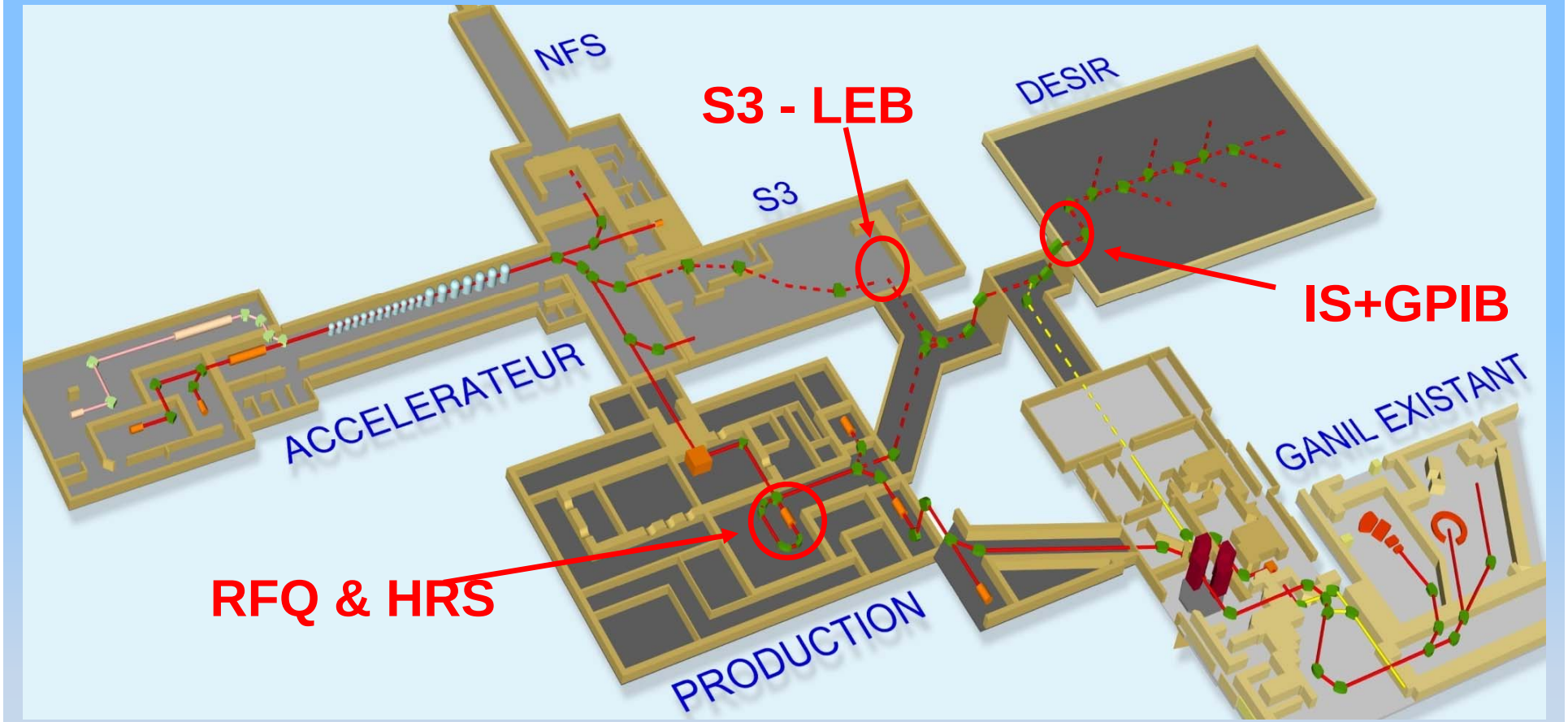


High Resolution Mass Separator

(CENBG – CSNSM-GANIL/SPIRAL2)

- **mass separation $\Delta m/m > 20000$**

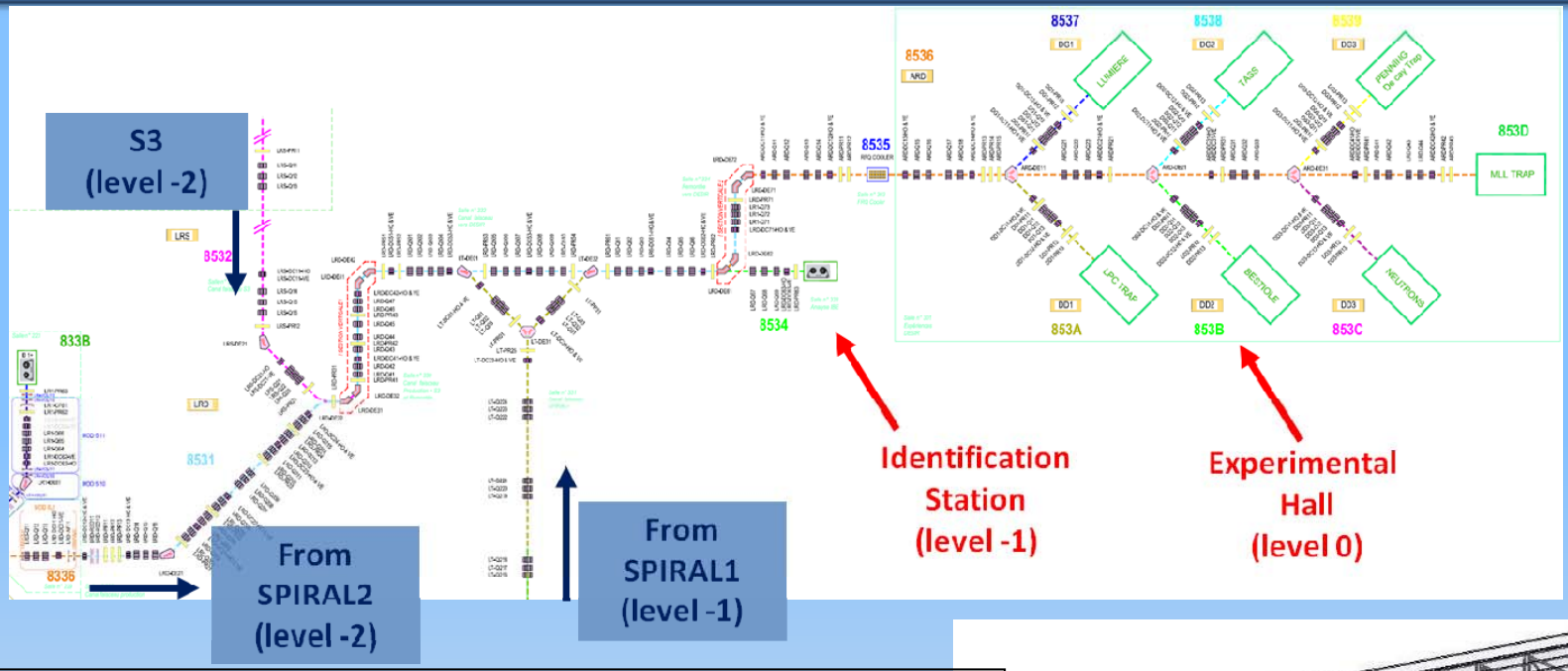
DESIR at GANIL/SPIRAL1+2



Beams from

- **SPIRAL1** (light n-deficient and n-rich nuclei from beam/target fragmentation)
- **SPIRAL2** (n-rich fission fragments, transfer and fusion-evaporation products)
- **S3** (fusion-evaporation products, refractory elements)

DESIR beam lines, experimental hall & basement

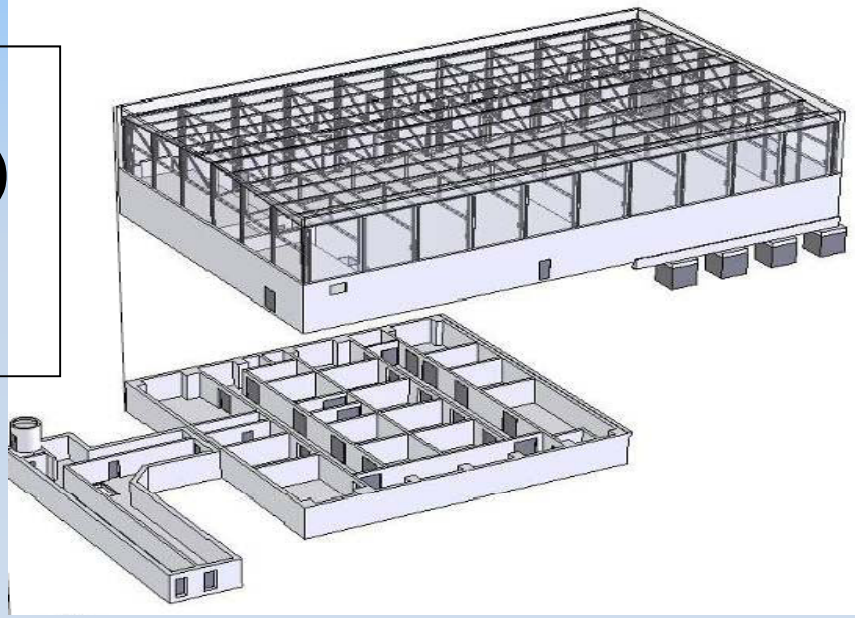


Beam lines

(IPNO– CENBG-GANIL/SPIRAL2)

Building

(CENBG – GANIL/SPIRAL2)



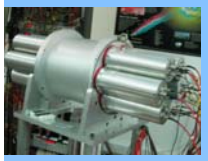
Initial proposal:

- **~ 150 m of beam lines**
- **~ 1500 m^2 of experimental area**
- **~ 900 m^2 of basement**

DESIR experimental hall & associated detectors

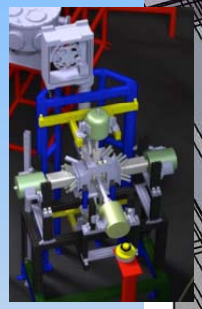
MLLTrap

N -TOF detector



PIPERADE+TAGS

LPCTrap

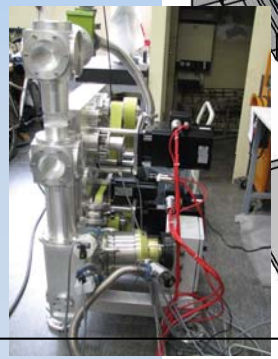


BEDO

TETRA

BELEN

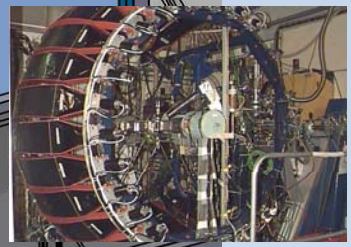
Silicon Cube



LUMIERE

TONNERRE

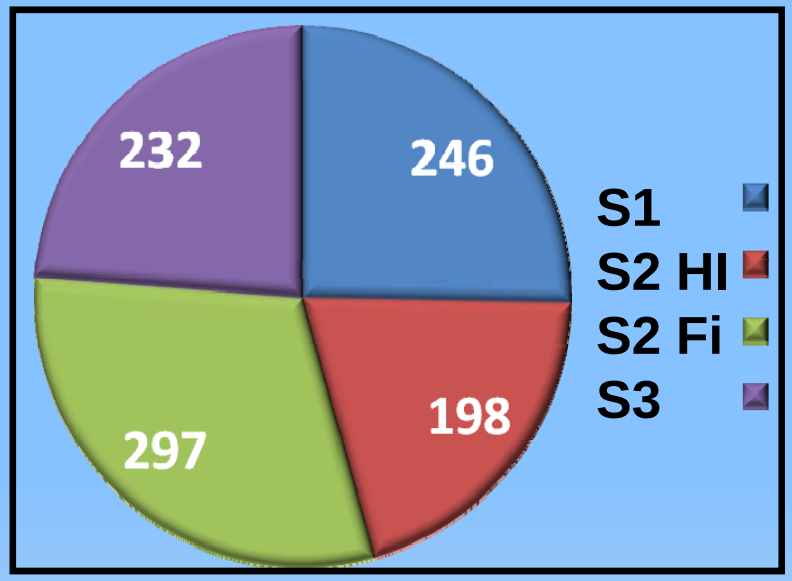
Identification station



Identification station

(IPHC)

DESIR collaboration



21 LOIs for DESIR experiments

Participants: 135