



TRIBUTE TO SYDNEY GALES



15th of Dec. 2025
Auditorium
Irène Joliot-Curie
(Bat 100)

15 décembre 2025 IJCLab

Sydney Galès

- Accelerator projects in different periods of his scientific life
- Aspects related to the technical organization of the laboratory

T. Junquera

15 Décembre 2025

→ scientific responsibilities

1986-1994 Project leader of AGOR and member of the board of directors of the project.
AGOR (Accelerator Groningen -ORsay)

1994-2002 Director of the Institute of Nuclear Physics Orsay

November 2004-Jan 2012 Deputy Scientific Director at IN2P3/CNRS in charge of Nuclear and Hadronic Physics , Nuclear Energy and Nuclear Medicine

July 1st 2005-Dec2011 Director of Large Scale Heavy Ion Accelerator Facility GANIL (Caen, France)

April 2013 –June 2016 Scientific Director of the High Power Laser and Gammas Large Scale Facility project ELI- NP (Bucharest, Romania)

CEV – ALICE
Synchro Cyclotron
4 MeV - Tandem
GANIL
Saturne

Sydney Galès Projects IPNO 1985 - 2004

- AGOR (1986 – 1994)
- RF SC Cavities with CEA and LAL (1986 ... ALS ... TTF ...)
- LHC agreement (CERN CEA CNRS) signed in 1996
(2 contributions IN2P3)
- Transmutation (2000 ... 2005 ... MYRRHA ...)
- Tandem - ISOCELE - ALTO (... 1998 ...2002...)
- Spiral 2 (2003 initial studies, 2005 decision ...)
- Supratech (2004 ...)

More recent with LAL, CEA
and now with IJCLab

... XFEL ... ESS
... PERLE, future projects CERN, ...

Project AGOR *Accelerator Groningen Orsay* (KVI-IPNO)

1986 to 1994 Construction of AGOR (Superconducting cyclotron)
in the Building 106 (formerly CEV)

→ SC coils at IPNO before : SOLENO, CRYEBIS, ...

→ First superconducting European Cyclotron



April 1994 - IPN Orsay- First beam out

Projects and developments related to Superconducting Cavities and associated cryogenic systems

CNRS - CEA collaboration, with LAL, on ALS and Tesla projects (with DESY)



Prototyping of new types of cavities (leading to various European projects... MYRRHA, ESS)



Supratech Platform and Spiral 2 Launch



Transmutation: collaboration with CEA on ADS (Accelerator-Driven Systems), envisaged for the reprocessing of certain nuclear waste by transmutation (European projects PDS-XADS ...)

A major project
involvement for the
IPNO technical groups

LE PROTOCOLE DE COLLABORATION CERN - CEA - CNRS POUR LA CONSTRUCTION DU LHC

signé le 14 Février 1996

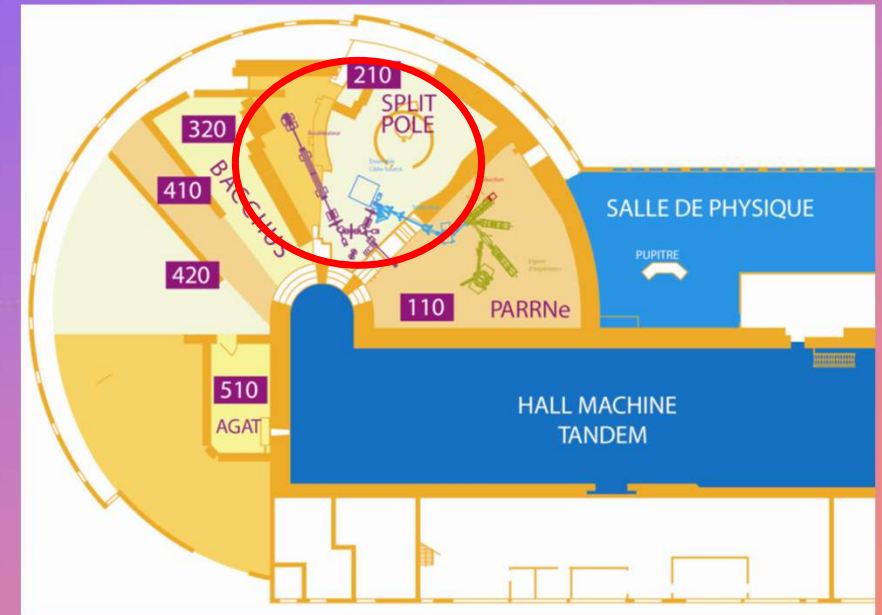
Le CNRS a pris en charge les cryostats des sections droites courtes ainsi que l'instrumentation cryogénique.

Les équipes de l'IN2P3 en charge de ces programmes ont, en effet, une compétence reconnue dans les domaines de la supra-conductivité magnétique et des cryostats associés. Leur maîtrise de ces techniques a été acquise dans la conception et réalisation du cyclotron supra-conducteur AGOR, installé maintenant à Groningen aux Pays-Bas et l'un des rares de ce type à fonctionner dans le monde.

D'autre part, l'IN2P3 est un spécialiste de l'instrumentation cryogénique équipant les cavités supraconductrices et participe, à ce titre, à la collaboration européenne ITF visant à réaliser des accélérateurs linéaires supra-conducteurs. La collaboration au LHC pour la mise au point d'une instrumentation cryogénique fiable permettra de progresser encore dans ce domaine primordial pour les accélérateurs du futur.

the ALTO project

The Orsay Tandem, whose capabilities will be enhanced by the addition of a linear electron accelerator (CERN-LEP), the PARRNe separator, targets, etc., will soon deliver beams of exotic neutron-rich nuclei, becoming an excellent tool for nuclear structure studies far from stability.

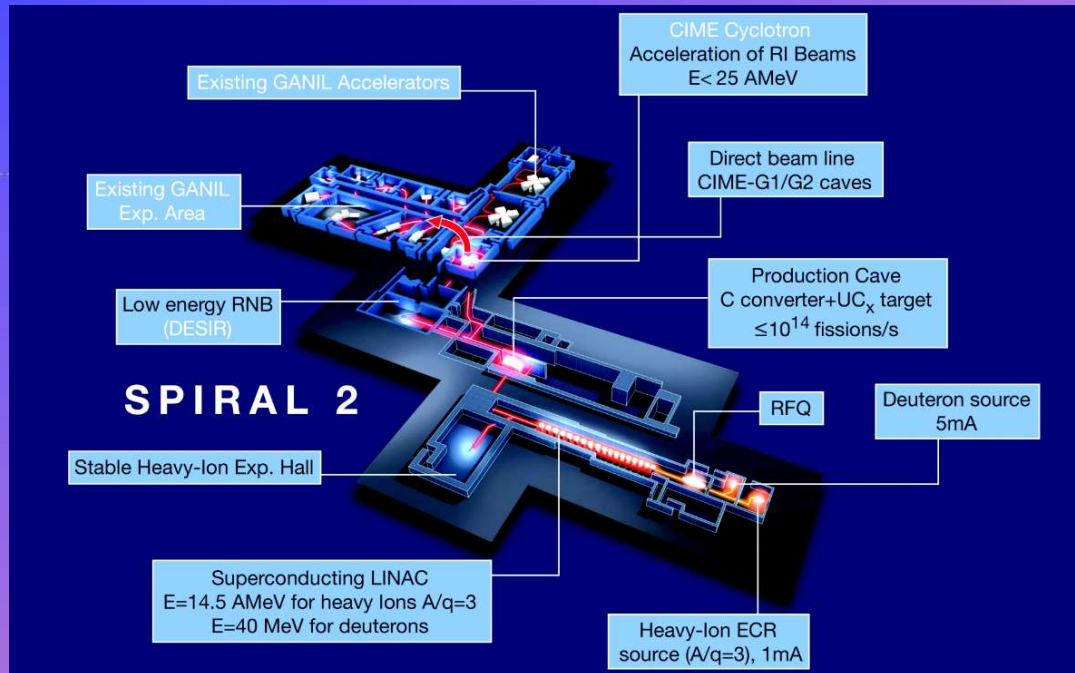


ALTO installed at the Tandem

First radioactive beams at ALTO : 2006

Spiral 2

Construction decided at GANIL-Caen in May 2005,
after 2 years of preliminary studies



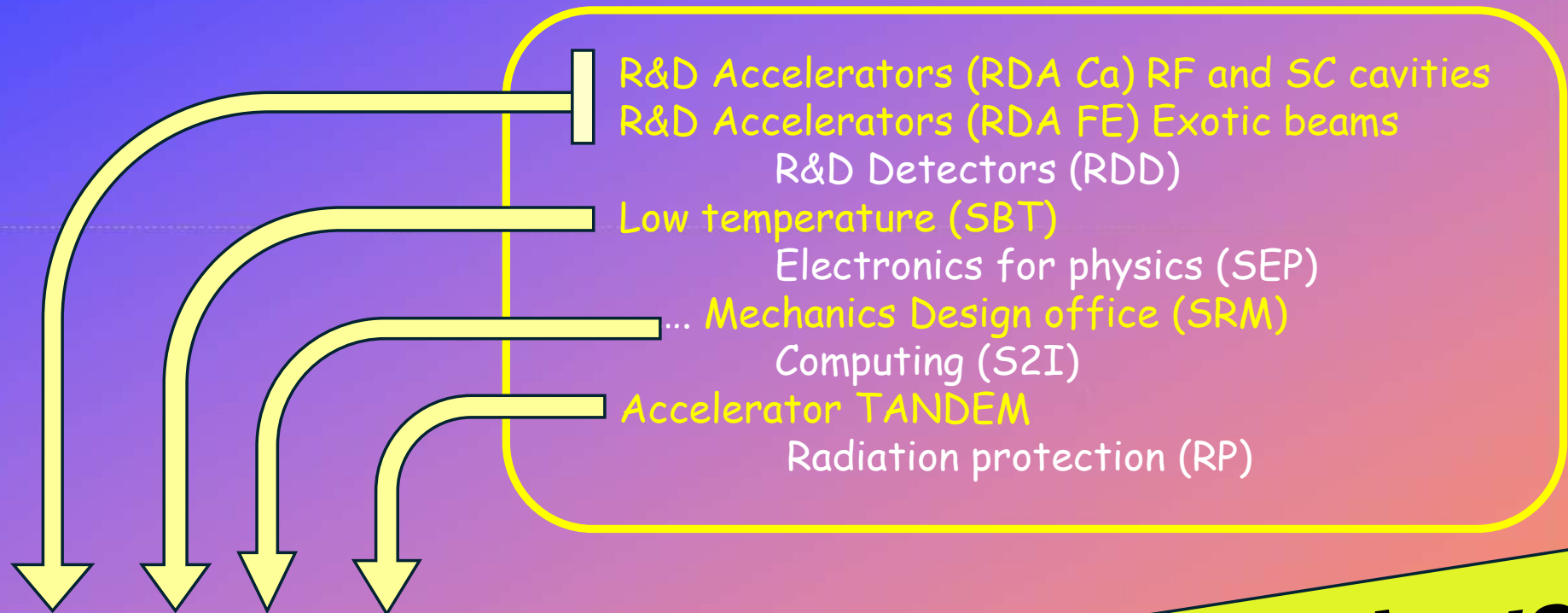
→ first accelerator cryomodule constructed
and validated in early 2008 at IPN Orsay
Inauguration of SPIRAL 2 in November 2016

IPNO Technical Organization (Accelerator techniques)



- Closely linked to the AGOR, LHC, Tesla, ALTO, and Spiral 2 projects
- Strong encouragement of collaboration and participation in studies and construction on European and French projects (AGOR, LHC, Spiral 2, TESLA, MYRRHA, ESS, ...)
- Strong support for participation in international conferences, publications ...
- Launch of the Accelerator Division (2000)

IPNO Technical staff -Organization -1999



Accelerator Division (DA) in 2000

**Thank you
Sydney**