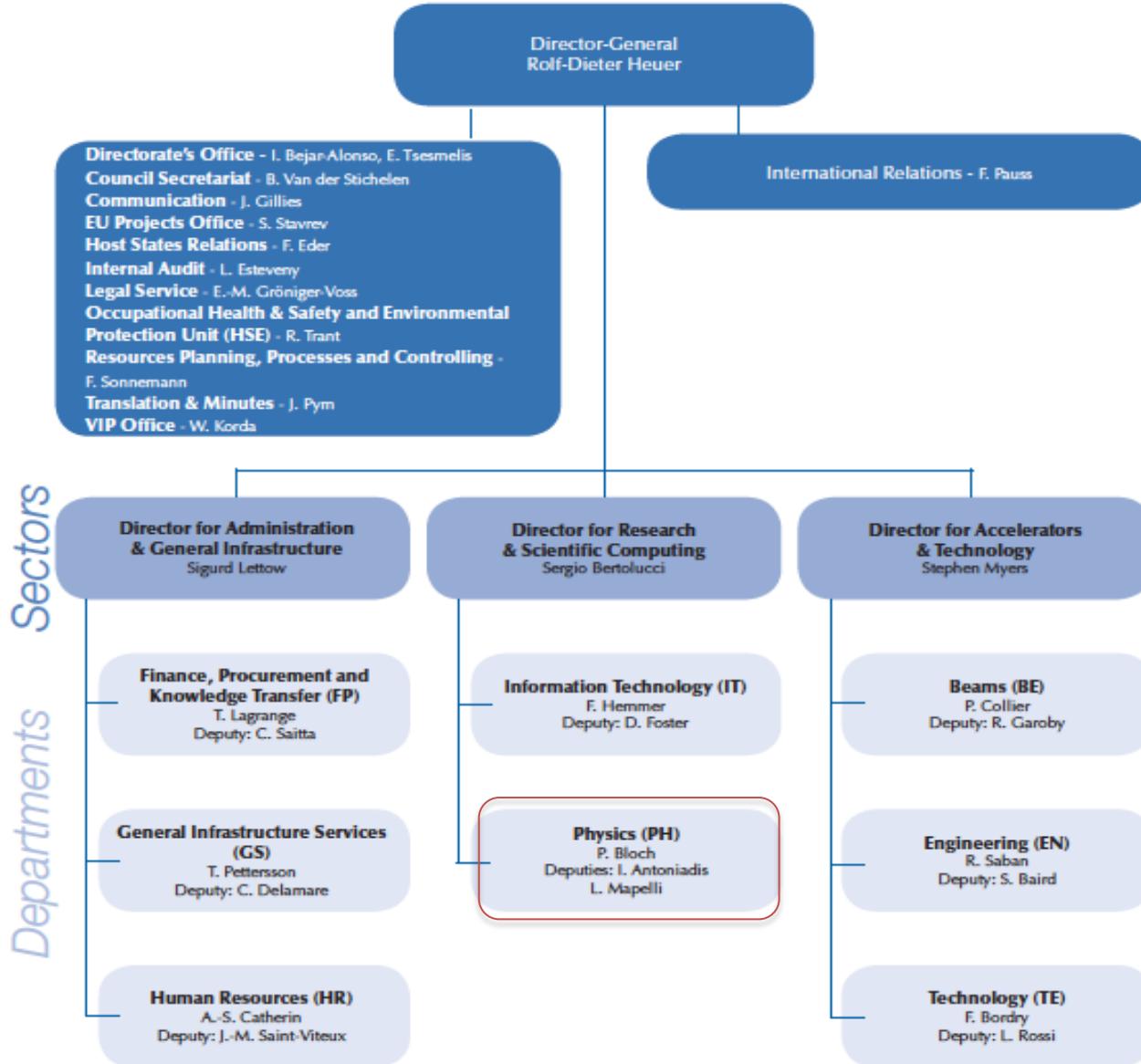


# CERN PH-DT

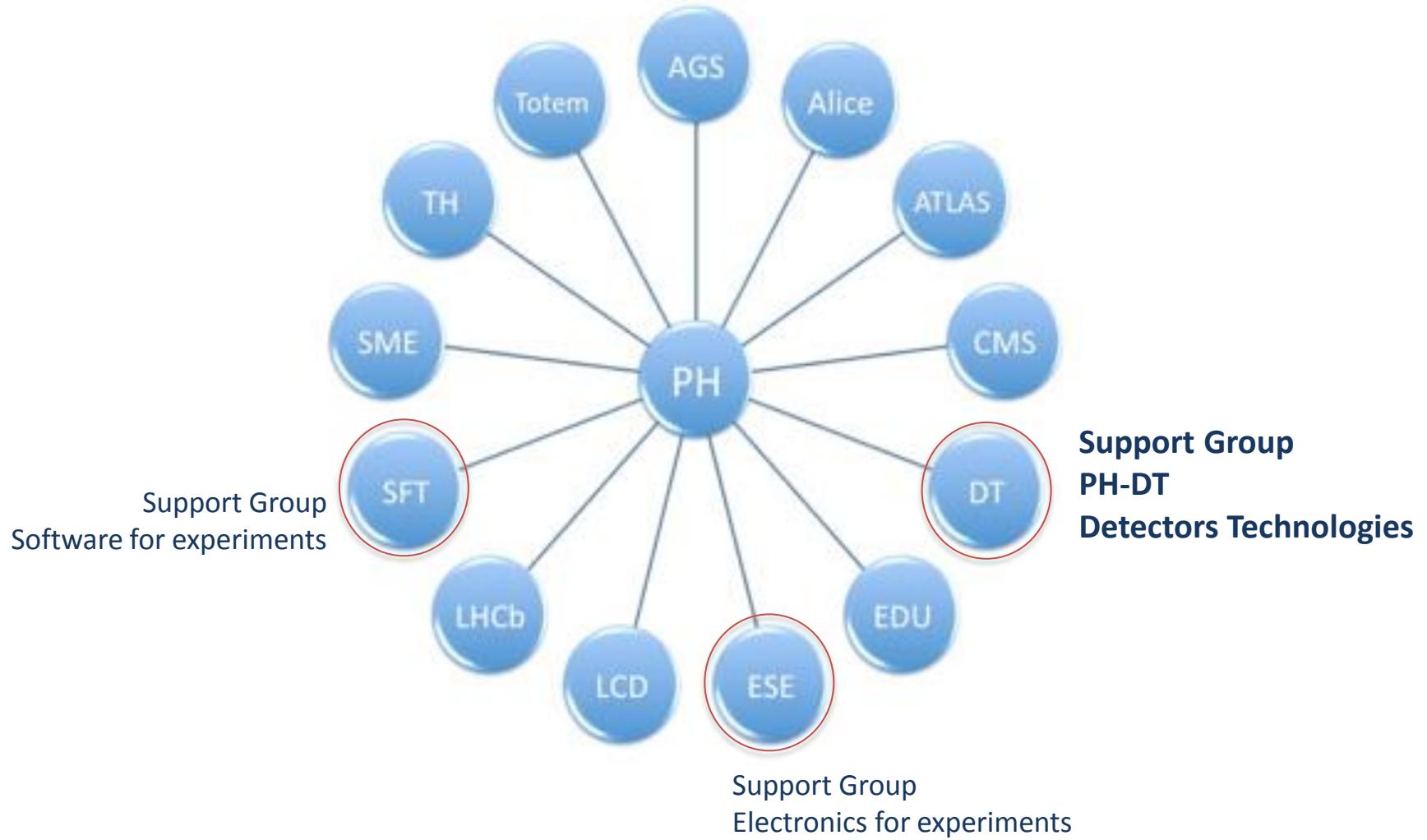
[www.cern.ch/ph-dep-dt/](http://www.cern.ch/ph-dep-dt/)

Mar Capeans

# CERN Organization

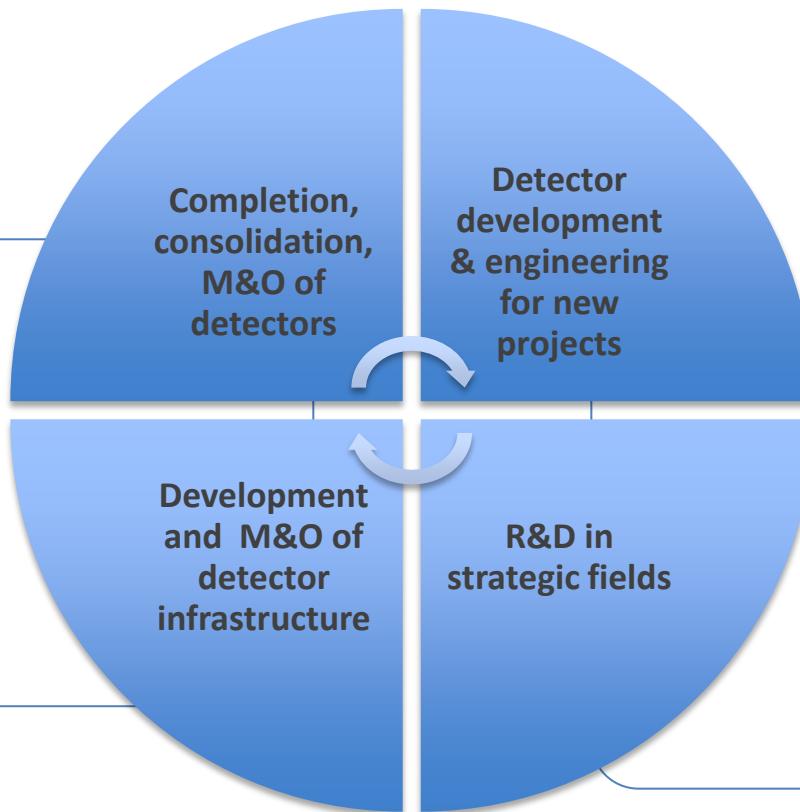


# PH Department



# DT Group Mandate

The **mandate** of the PH-DT group comprises development, construction, operation and maintenance of particle detectors for the **experiments** at CERN. The group also offers a range of **services and infrastructure** for experiments and detector R&D



- Gas and cooling systems
- Controls & Instrumentation
- Magnet support
- TFG
- Silicon facility with bond lab
- PH Irradiation facilities

- Silicon detectors
- Gaseous detectors (MPGD)
- Scintillating fibre detectors
- On-detector cooling

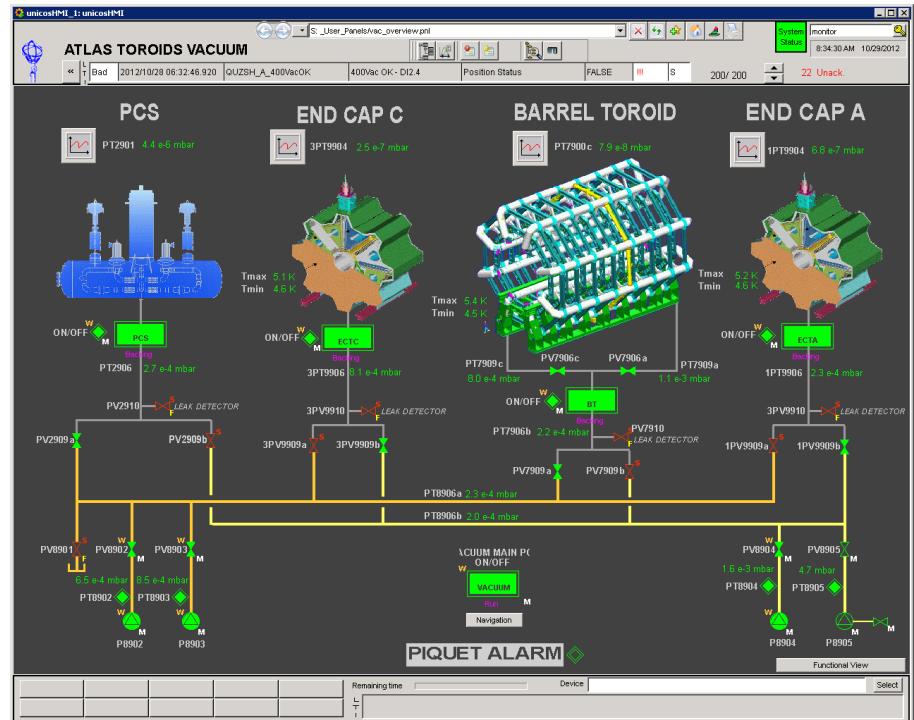
# Particle detectors development & construction (e.g. ATLAS TRT)



# Control and Safety Systems



COMPASS Magnet Controls



ATLAS Magnet Vacuum System

# PH-DT Detector Technology

Group leader: Mar Capeans

Deputy: Andrea Catinaccio

Secretariat: Veronique Wedlake

Engineering Organization of EO, EM 1 & 2 : Andrea CATINACCIO

Safety linkman: Mark Hatch

## Detector Infrastructures (DT-DI)

Mar CAPEANS

### Meas. and Controls

BERGSMAN Felix  
BLANC Pascal  
BOURGEOIS Nicolas  
DERONT Laurent  
MAIRE Gilles  
PONS Xavier  
RAVAT Sylvain

### Gas

GUIDA Roberto  
CARRIE Patrick  
D'AURIA Andrea  
DE MENEZES Louis-Philippe  
MERLET Frederic  
PAVIS Steven  
WASEM Albin

### Cooling

PETAGNA Paolo  
DAGUIN Jerome  
GODELEWSKI Jan  
TROPEA Paola  
ZWALINSKI Lukasz  
  
DZIURDZIA Piotr (TECH)  
FEIGL Simon (MCFELL)  
KRZEMPEK Lukasz Piotr (TECH)  
MANDELLI Beatrice (DOCT)  
ROMAGNOLI Giulia (DOCT)  
SZWARC Tomasz Jakub (TECH)

## Detector Development (DT-DD)

Michael MOLL

### TGF

SCHNEIDER Thomas Hans  
DAVID Claude  
VAN STENIS Miranda

### Si Detectors

HONMA Alan  
MANOLESCU Florentina  
MCGILL Ian

### Gas Detectors

ROPELEWSKI Leszek

### Irrad. Facilities

GLASER Maurice  
FORTIN Richard G  
RAVOTTI Federico

GALLRAPP Christian (FELL)

NEUGEBAUER Hannes (DOCT)

OLIVERI Eraldo (FELL)

THUINER Patrick (DOCT)

## Technology and Physics (DT-TP)

Burkhard SCHMIDT

### DAVENPORT Martyn

GYS Thierry  
HAHN Ferdinand  
HAIDER Stefan  
JORAM Christian  
KLEMPT Wolfgang  
MARTINENGO Paolo

CASTILLO GARCIA Lucia (DOCT)

HELLER Matthieu (MCFELL)

KRUGER Andreas (TECH)

PALUCH Robert Michal (TECH)

VAFEIADIS Theodoros (FELL)

## Engineering Office (DT-EO)

Andrea CATINACCIO

### BAULT Christophe Daniel

DEGRANGE Jordan  
GARGIULO Corrado  
JAMET Olivier  
LENOIR Philippe  
MIGNE Julien  
WERTELAERS Piet  
  
BERRUTI Gaia (DOCT)  
ESPOSITO Marco (FELL)  
MAODDI Pietro (DOCT)  
MAPELLI Alessandro (FELL)  
NUIRY Francois-Xavier (FEL)

## Engineering & Mechanics 1 (DT-EM1)

Antti ONNELA/  
deputy Raphael DUMPS

### ANSTETT Didier Henri

BOUVIER Philippe Jacques  
CANTIN Bernard  
DENARIE Charles-Henri  
IJZERMANS Pieter  
KOTTELAT Luc-Joseph  
KRISTIC Robert  
LESENECHAL Yannick  
LOOS Robert  
PIEDIGROSSI Didier  
VAN BEELEN Jacob Bastiaan  
  
LIMA DA COSTA E SILVA  
Pedro Miguel (FELL)

## Engineering & Mechanics 2 (DT-EM2)

Hans DANIELSSON/  
deputy Pierre-Ange GIUDICI

BENDOTTI Jerome  
BODE Alain  
BRUNEL Bernard  
CHARRA Patrick  
DIXON Neil David  
GARNIER Francois  
G. M. DE OLIVEIRA Antonio  
NOEL Jerome  
PEREZ GOMEZ Francisco  
VERGAIN Maurice  
  
SERGI Antonino (FELL)

March 2013



# Detector Infrastructure (DI) Section

## Gas Systems

LHC M&O  
~25 Gas systems

CLOUD  
NA62  
Beam Test Areas  
Linac4...

## Cooling

LHC M&O  
 $\text{CO}_2$  plants (ATLAS  
IBL and CMS Pix)

Development  
cooling concept &  
projects

## Instrumentation and Controls

LHC experimental  
magnets M&O

ATLAS ALFA, TOTEM,  
NA62, ArDM, AEGIS,  
COMPASS...  
B-field meas.



# 2014 Projects

- Continuation of the successful collaboration between CUT and PH-DT **cooling** team
- Since 2013, more on fluids.... Contribution to the **Gas systems** activities (calibration stations, controls for diverse lab setups, ...)
- In 2014, incorporation of projects on **controls** of diverse hardware (step-motors for beam pipe alignment, readout of sensors,...)

**Student profile** depends on specific project, but in general he/she will have or acquire:

- Knowledge of instrumentation & controls engineering
- Basic knowledge of electrical circuit design
- Basic knowledge in LabView programing, communication protocols
- Be highly motivated and quick learner of CERN tools: LabView Advanced, AutoCAD Electrical, PVSS...

# Merry Christmas



