

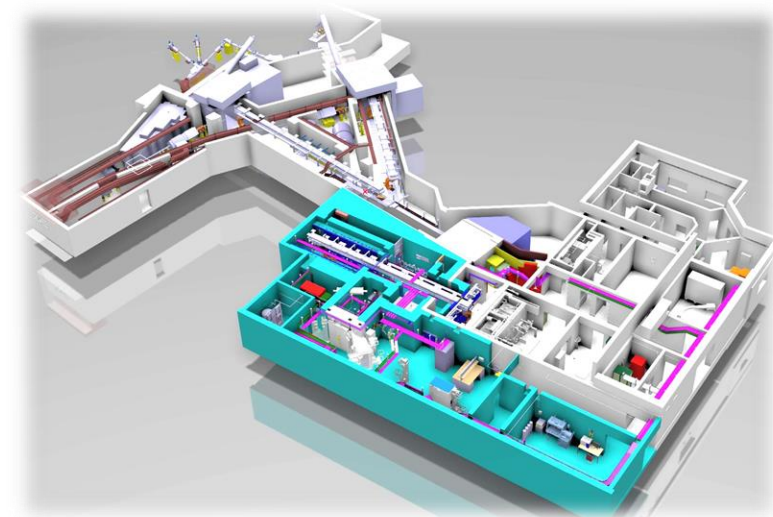
MEDICIS Facility Report during LS2

MEDICIS run coordinator: Charlotte DUCHEMIN (Joined the team on 1st of August 2019)

Predecessor: Joao Pedro RAMOS (until mid-July 2019)



KU LEUVEN



My Background

PhD Thesis

SUBATECH/ARRONAX
Nantes, France

Production of innovative
radionuclides for medical
applications

2012-2015

2015-2016

Teacher/Researcher

SUBATECH/ARRONAX
University of Nantes, France

Senior Fellow at CERN

Radiation Protection group

Clearance of historical
waste (LEP)
& activation studies

2016-2019

**Since 1st of
August**

50% Post-doctoral
research fellow at
KU Leuven

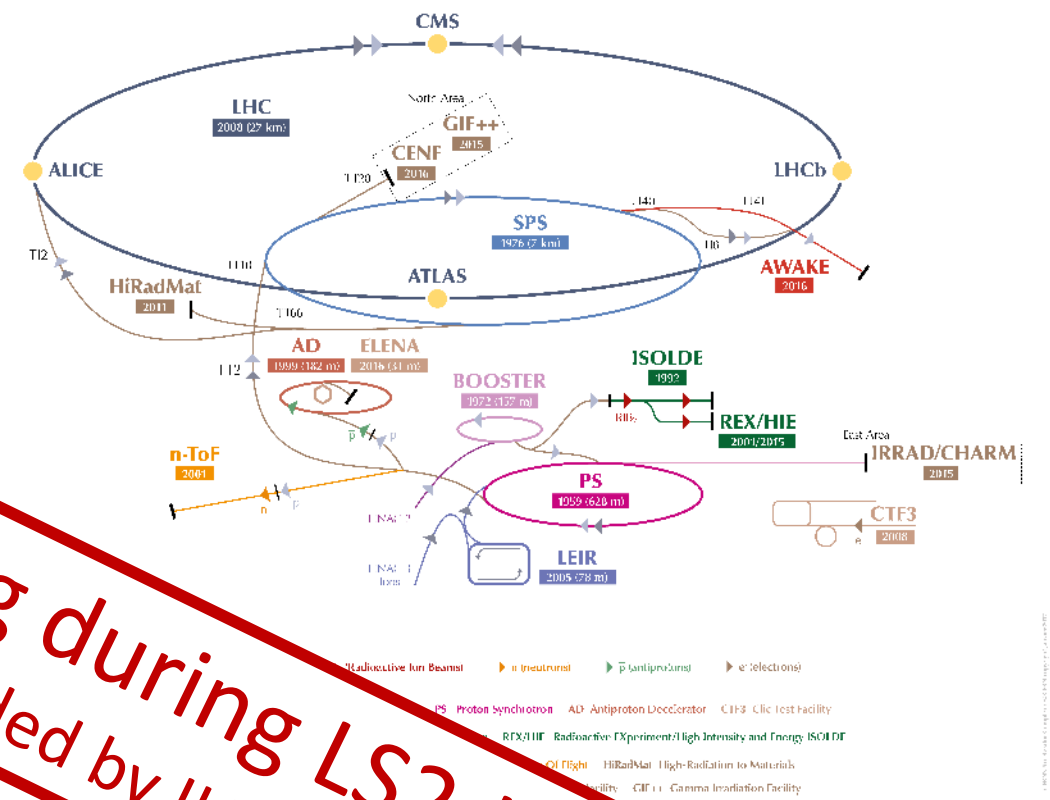
50% MEDICIS run
coordinator

The CERN accelerator complex long shutdown n°2

		2019			
		Q1	Q2	Q3	Q4
LHC		Shutdown			
Injectors	LHC Inj.				
		2020			
		Q1	Q2	Q3	Q4
LHC		Shutdown			
Injectors	LHC Injectors upgrade				
		2021			
		Q1	Q2	Q3	Q4
LHC		Beam commissioning	Physics	Physics	Physics
Injectors		Beam commissioning	Physics	Physics	Physics

Running offline with external sources provided by ILL and ARRONAX
MEDICIS is operating during LS2 !

Q4 We are here

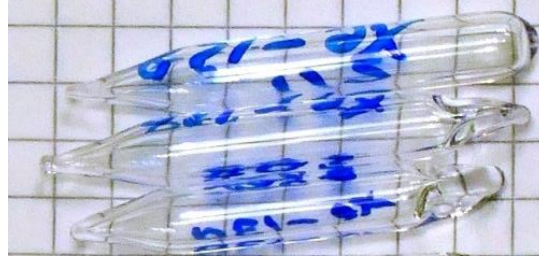


- Shutdown
- Beam commissioning
- Physics
- Technical stop

MEDICIS Facility overview 2019

Jan

- Test of vials opening ✓
- Montrac® monorail system maintenance ✓



Feb

- Water cooling on MEDICIS frontend ✓
- MEDICIS storage shelves ✓



Mar

- Commissioning of the fume hood ✓
- Extraction electrode replacement:
new concept validated after repeatability tests ✓



MEDICIS Facility overview 2019

April

- Ventilation ✓
- Robot ✓
- Test of sample transfer ✓
- Laser MELISSA ✓



May

- Endoscopy analysis of frontend
- Extraction electrode mechanical issue
Delay until beginning of July ⚠



MEDICIS Facility overview 2019

June

- Reception of new electrode, installation and offline tests ✓
- 26th of June beam permit signed by EN-STI group leader ✓



July

- 2nd of July : first collection from external sources ✓

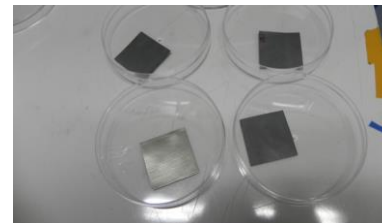
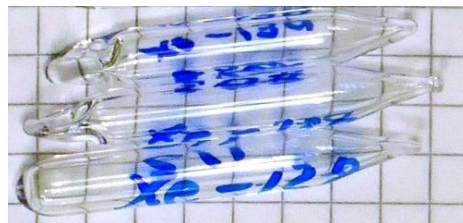
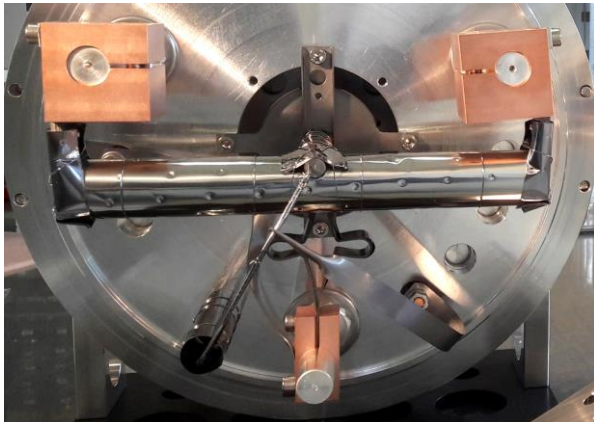


Beam Permit

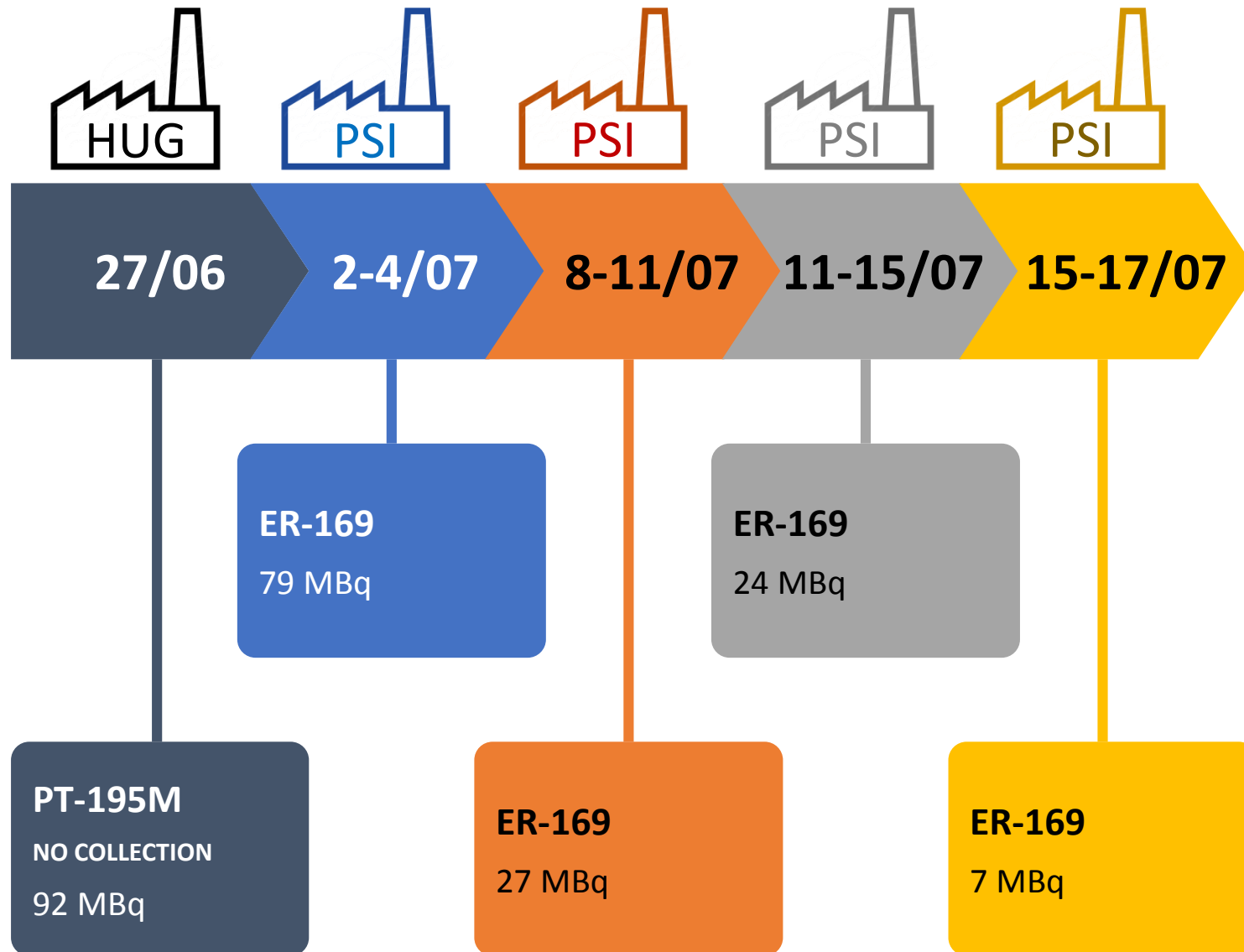
CPS Beam Permits

MEDICIS

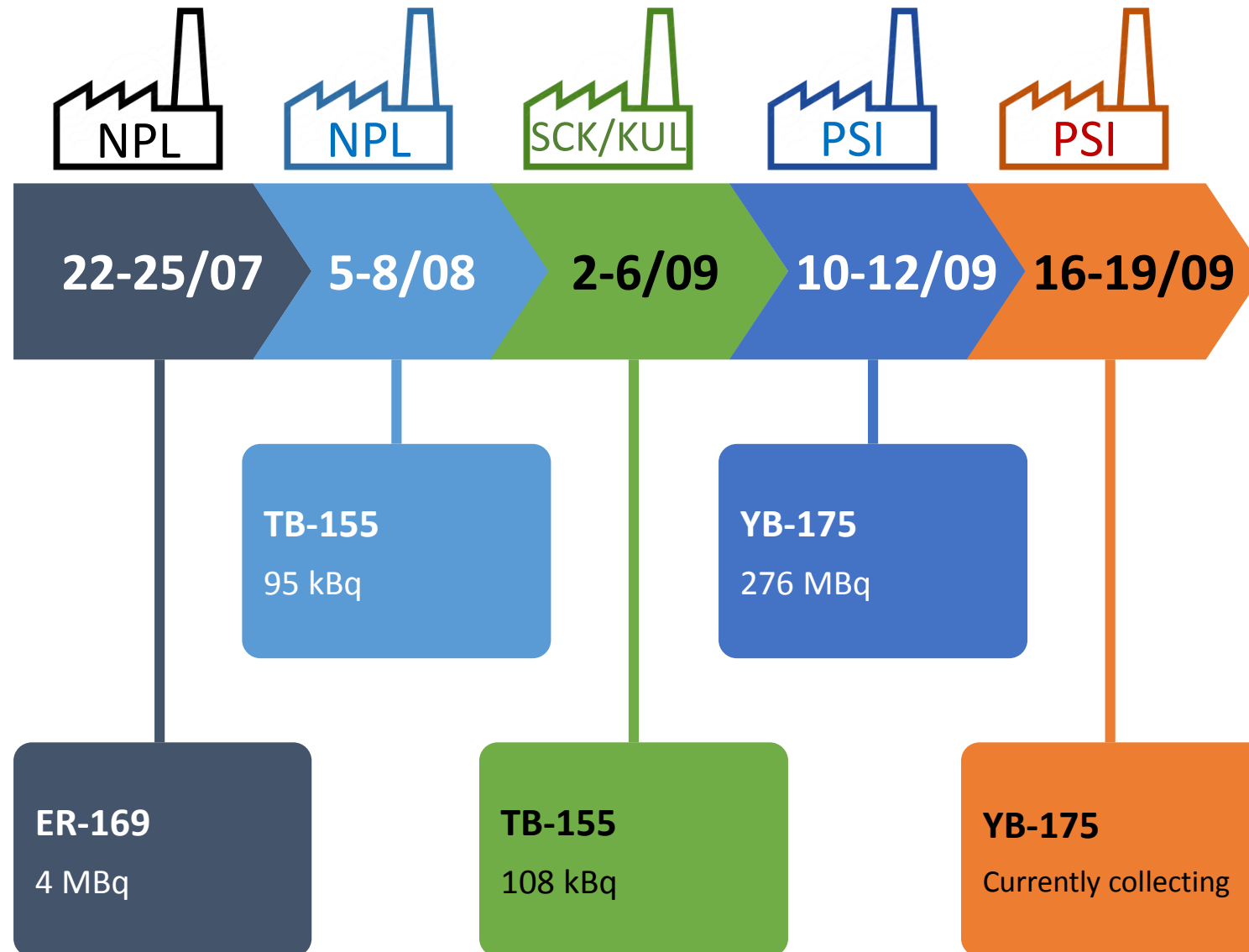
Limited
Irradiation Permit
Approved



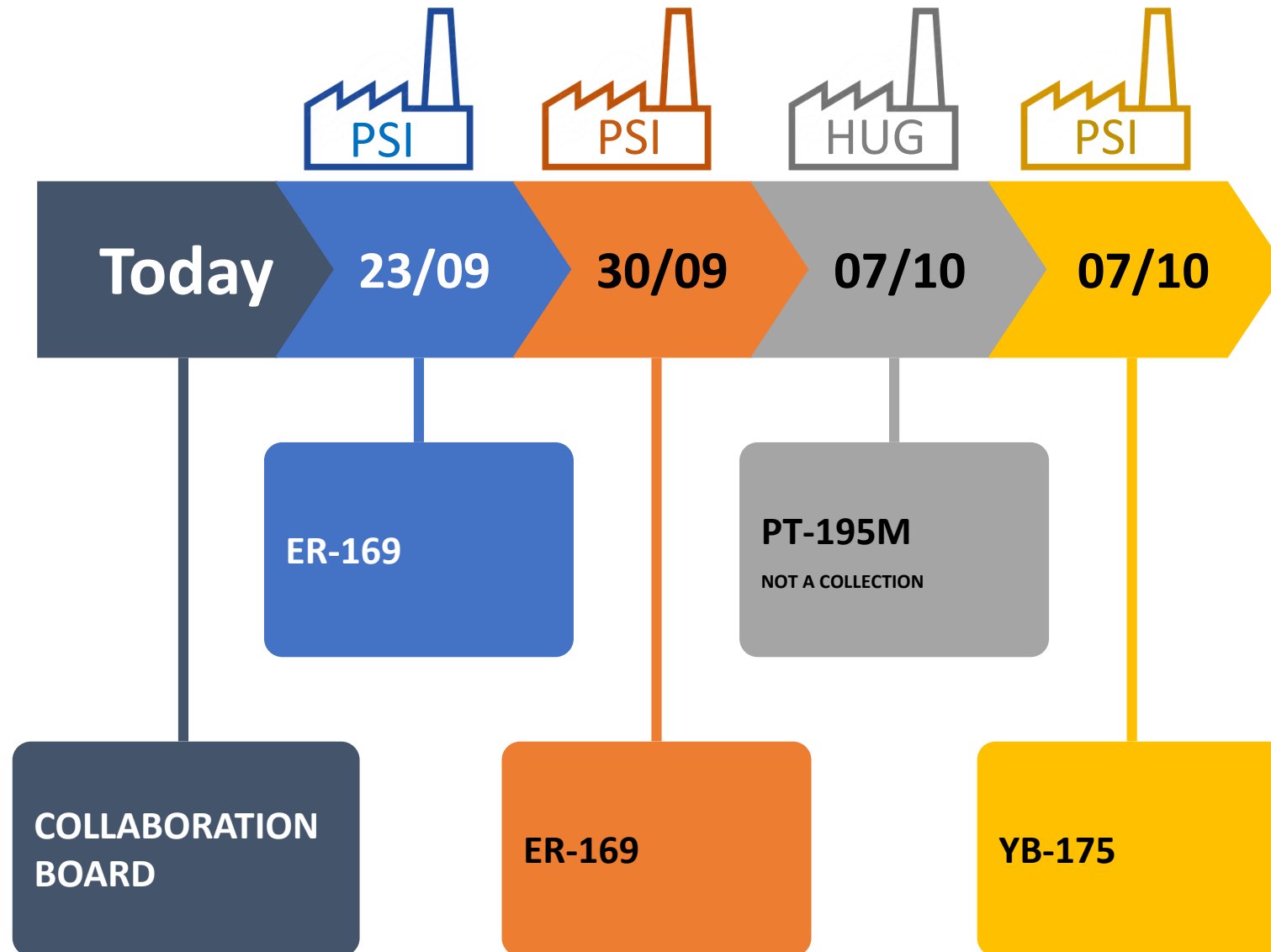
MEDICIS collections 2019



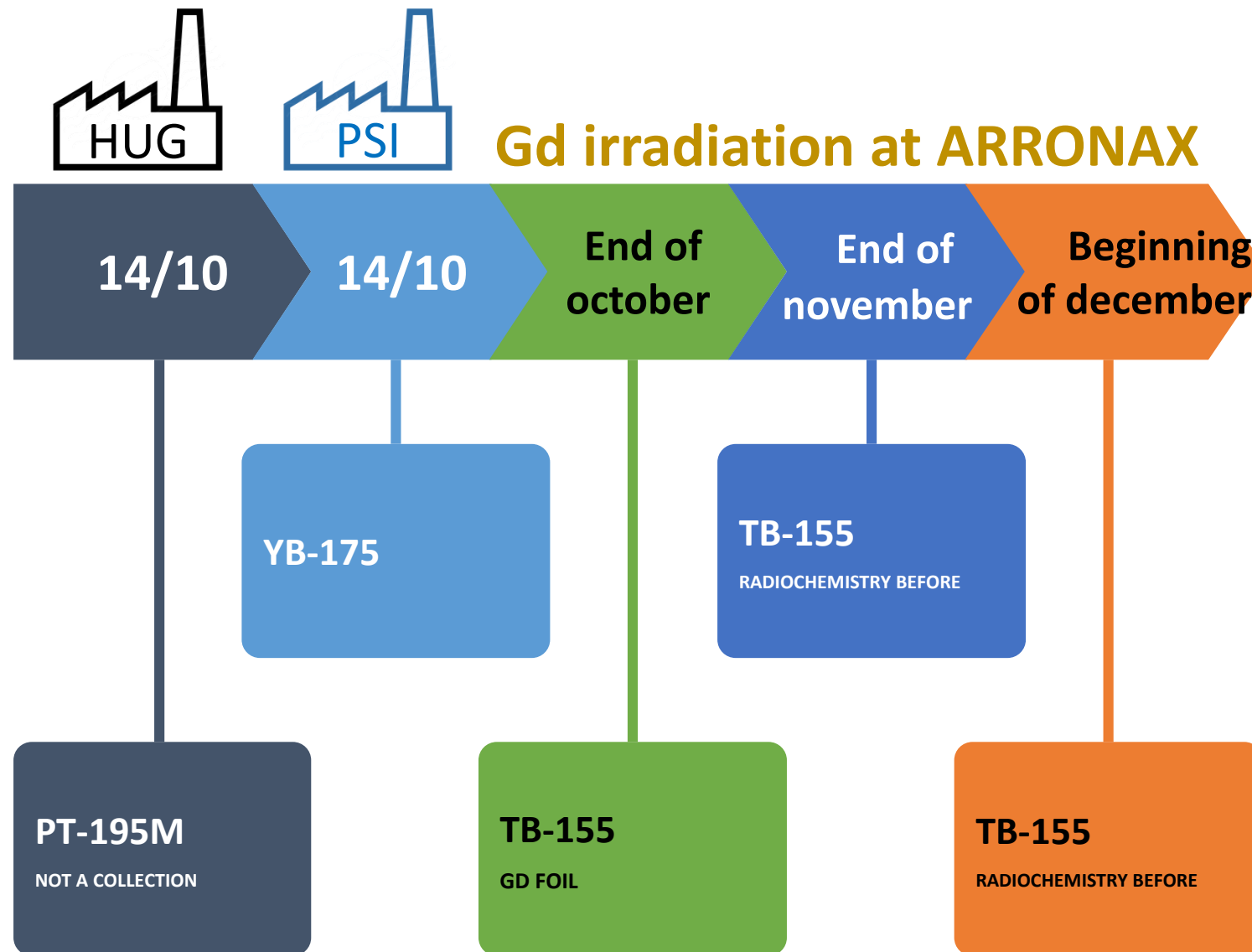
MEDICIS collections 2019



MEDICIS upcoming collections 2019



MEDICIS upcoming collections 2019



Gd irradiation at ARRONAX

Tests ?

Institutes with interest in Tb-155

- PSI
- NPL/CT2N/CHUV
- KU Leuven

MEDICIS outlook 2020

- MEDICIS technical stop foreseen from end of December to February
- LS2 continues next year – no proton beams
- Need of external sources provided to MEDICIS next year



- ILL in shutdown until mid-2020
 - Last irradiation for MEDICIS is ending on 4th of October 2019
- ARRONAX is our only source of Tb-155 for next year



MEDICIS local team and collaboration



Project management



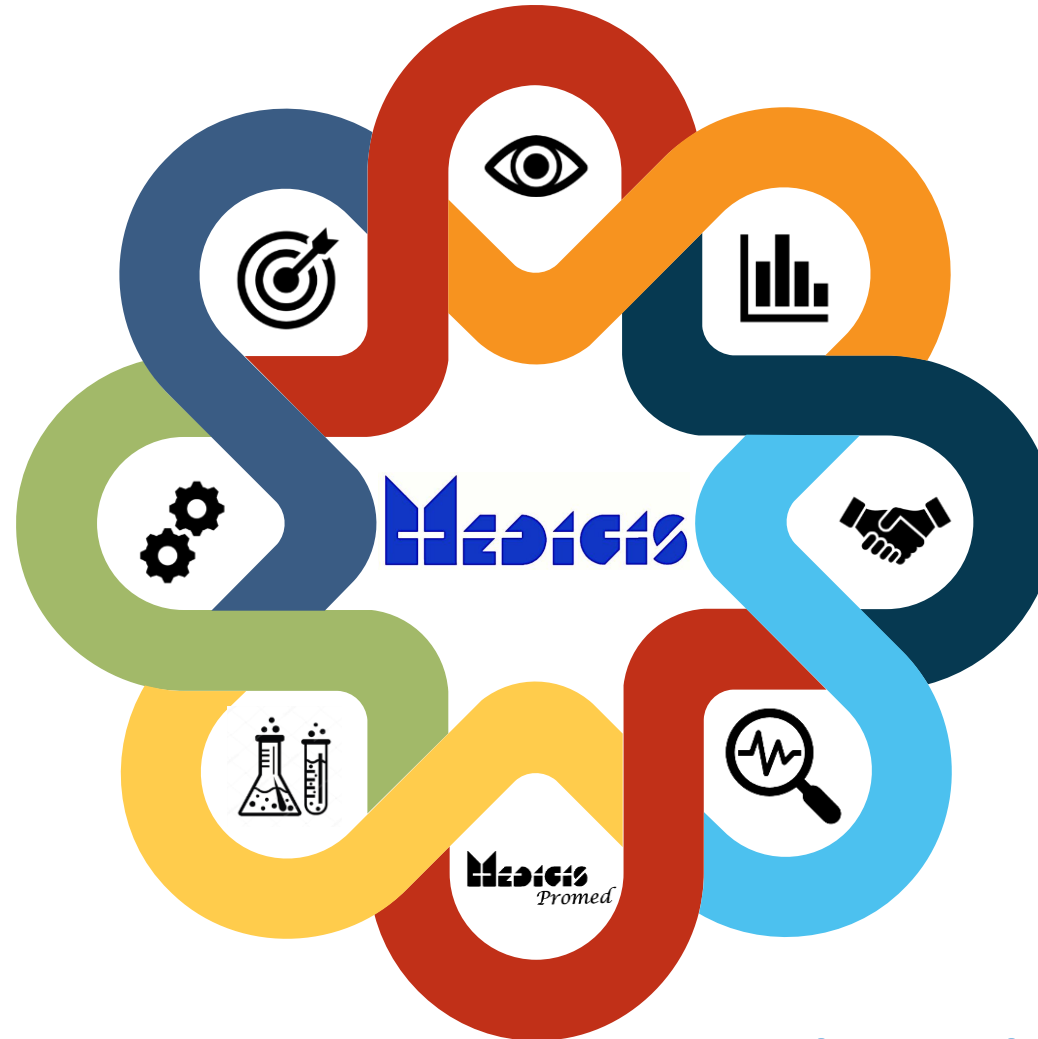
Operational RP and safety



Engineering, Target assembly and handling



LASER, Robot, Operations and Controls



Collaboration institutes



γ -spectrometry and shipping



Radiochemistry



MEDICIS Promed



Thank you !