

SFT Organization

SFT Group Meeting, 6 November 2017

Date

Outline

- ❖ Group Mandate
- ❖ Simulation Strategy
- ❖ Synergies
- ❖ New Organization

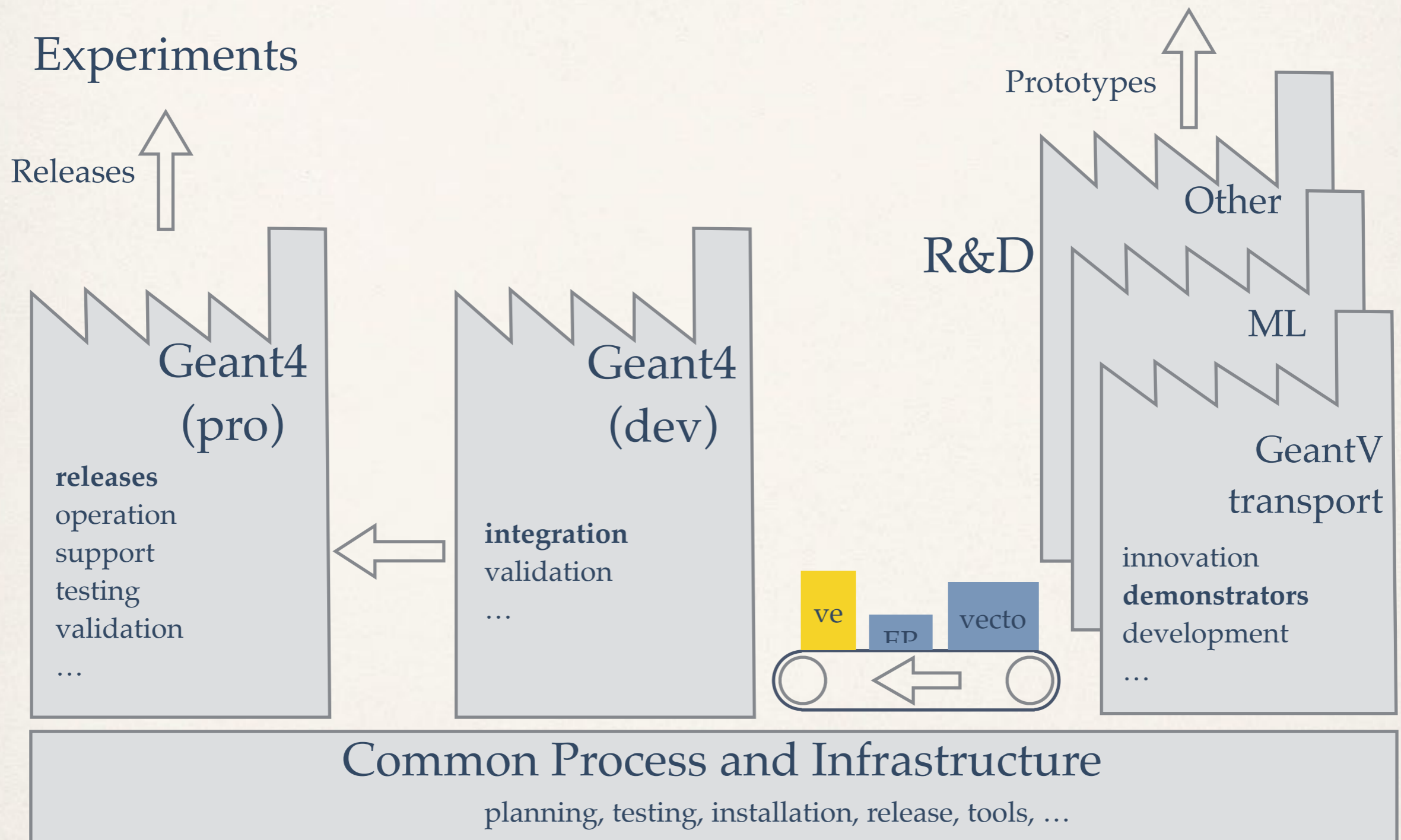
SFT Group Mandate

- ❖ The group **develops and maintains common scientific software** for the physics experiments in close collaboration with the EP experimental groups, the IT department and collaborating HEP institutes
 - ❖ Geant4, ROOT, Gaudi, CernVM, ...
- ❖ The group provides a **common infrastructure and expertise** to the experiments
 - ❖ select & maintain tools used in the development process
 - ❖ manage stack of >300 external software packages
 - ❖ provides people to the experiments to fulfill key roles
- ❖ The group leads and participates actively to **community initiatives** such as HSF

Simulation Strategy Rational

- ❖ LHC experiments (and others) will base their simulation applications on the **Geant4 toolkit** for the next 5-10 years
- ❖ GeantV review recommended to incorporate/integrate the R&D 'goodies' as soon as possible into the Geant4 toolkit
- ❖ **One project, one deliverable, one team**
- ❖ **Three activities**
 - ❖ Research and development of new components, investigations of new approaches, exploitation of new hardware, etc.
 - ❖ Integration and validation of new components into the Geant4 toolkit
 - ❖ Maintenance and support, continuous improvement

Simulation Strategy



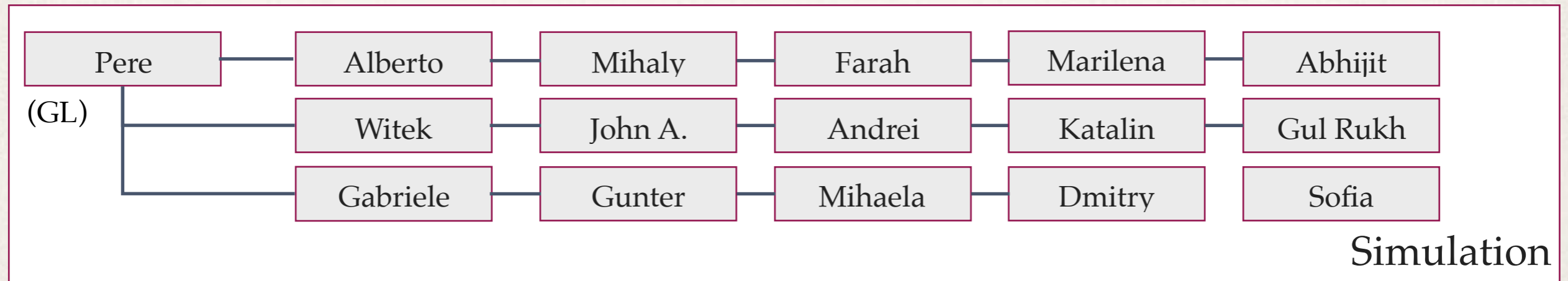
Tools and Processes

- ❖ We should **re-use the services, tools and processes** available commonly in the SFT group (promote what is done in SFT)
 - ❖ Git and associated processes (pull requests, facilitate contributions, code reviews, etc.)
 - ❖ Continuous integration (jenkins, build servers, software stacks)
 - ❖ Automation of procedures (jenkins)
 - ❖ Communication Tools: Discourse (user support), Jira (bug tracker), MatterMost (team chat)
 - ❖ Standardization of release procedures
- ❖ **Validation Tools**
 - ❖ Validation database and automation of procedures

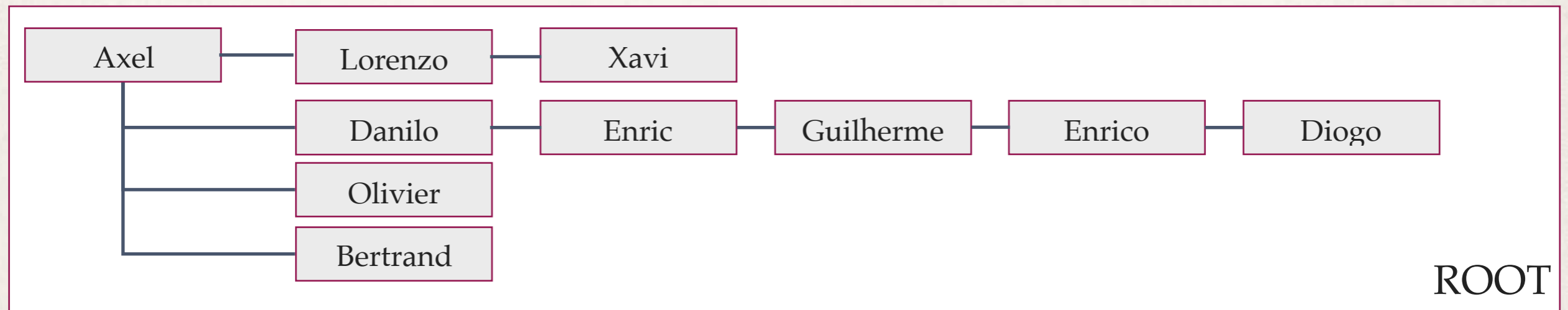
Group Synergies

- ❖ Each of us will be associated to a project (a box in the organizational chart) since we can only have one 'supervisor', but this does not mean that we cannot work for several projects
 - ❖ Indeed, you are encouraged to collaborate across projects
 - ❖ Sure your technical expertise will be appreciated by the other projects. Discuss with your supervisor
- ❖ We should continue to develop a **common culture** across the group
 - ❖ In the past few years we have done quite a lot of progress in terms of using common infrastructure but I think we can do better
 - ❖ you are also encouraged to take some **service tasks** (see table)
- ❖ Strengthening the links with the (LHC) experiments
 - ❖ you are also encouraged to be the contact person to one experiment

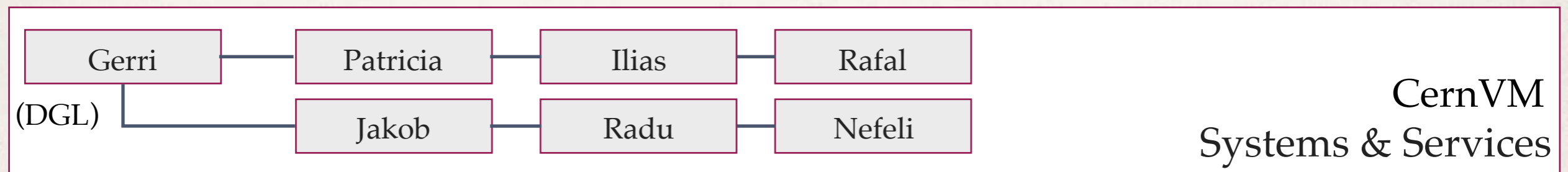
SFT New Organization



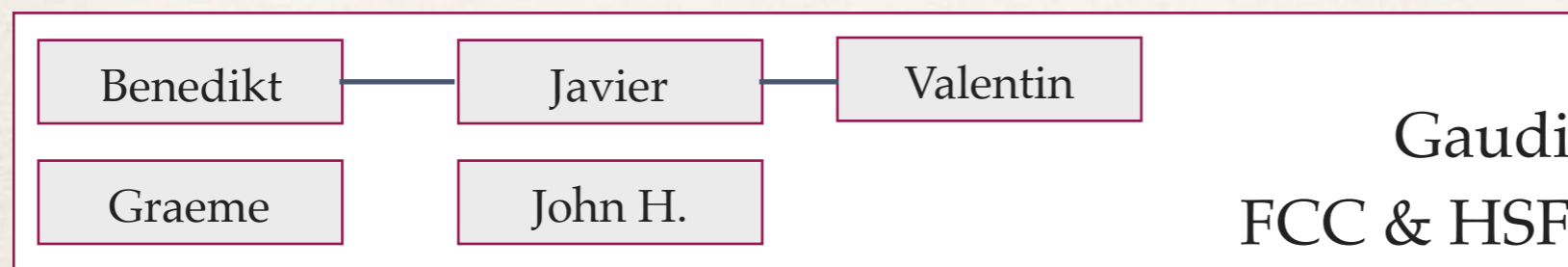
Simulation



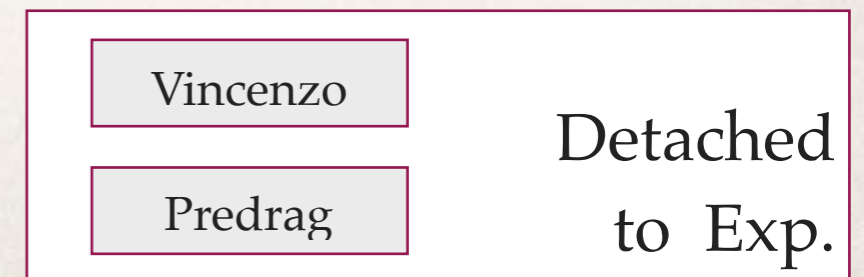
ROOT



CernVM
Systems & Services



Gaudi
FCC & HSF



Detached
to Exp.

SFT Person-power*

Activity	STAFF	FELL	DOCT	TECH	TRNE	SASS	PJAS	VISC (subsistence)
Simulation	8	3	1	-	1	1	2	6
ROOT	5	2	2	-	1	-	-	2
Sys&Sev	4	2	-	1	-	-	-	-
FCC + GAUDI	1	1	1	-	-	-	-	-
HSF	2				-			
Total	20	8	4	1	2	1	2	8
<i>An additional 2 staff members are detached to experiments (CMS+ALICE)</i>								

Final Messages

- ❖ A number of supervisors will need to be changed to reflect the new structure
 - ❖ Starting this week (with time for re-discussion if needed)
 - ❖ Supervision of staff may require to follow a MERIT course
- ❖ 2018 Program of Work
 - ❖ I propose a **Group Retreat** beginning of February to discuss together the program of work of all projects for 2018 and later
 - ❖ One full day outside CERN with participation of all members of the group
 - ❖ Preparation work for the retreat during January
 - ❖ Presentations with the retreat outcome to the experiments