

# Steering the ATLAS Upgrade

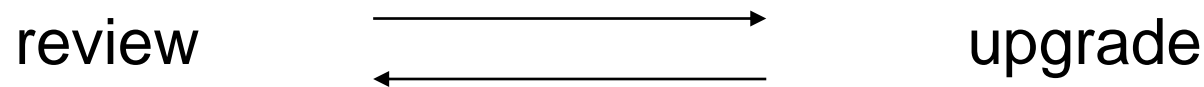
## Different Roles of Technical Reviews

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# Background

- practices of securing credibility



- internal / external
- formal / informal



Review Office – in charge of technical reviews

Upgrade Project (UP)

Initial Design Report (IDR)

Technical Design Report (TDR)

**Specifications Review (SR)**

**Preliminary Design Review (PDR)**

**Final Design Review (FDR)**

**Production Readiness Review (PRR)**

production  
installation  
comissioning

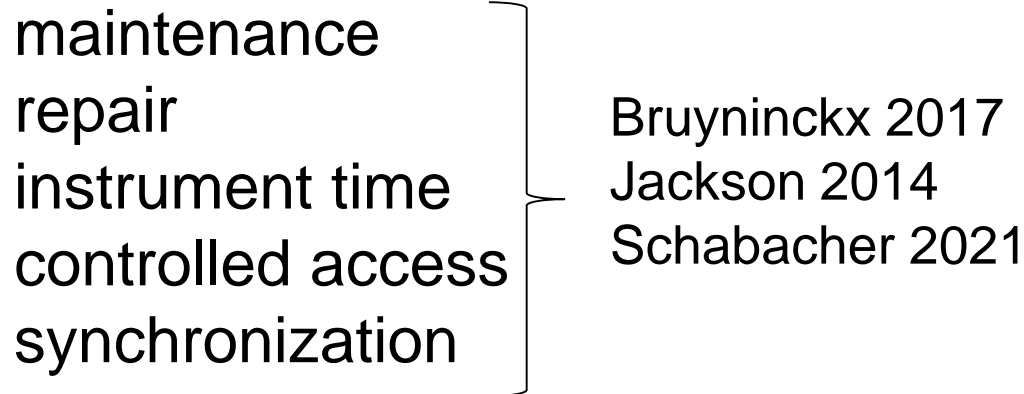
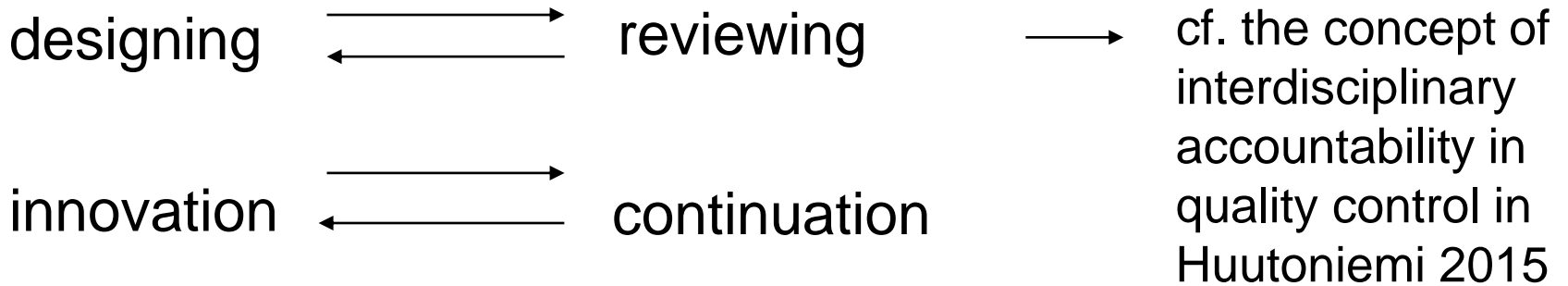
technical review

responsability of the  
ATLAS Review Office

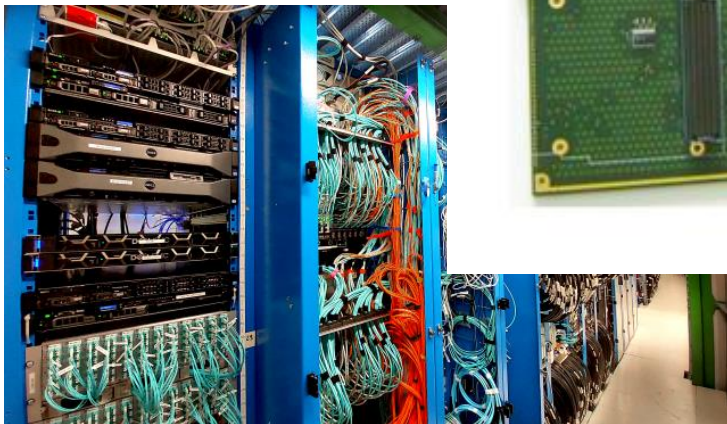
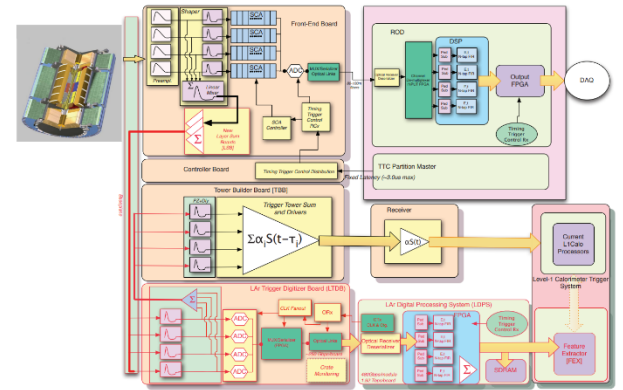
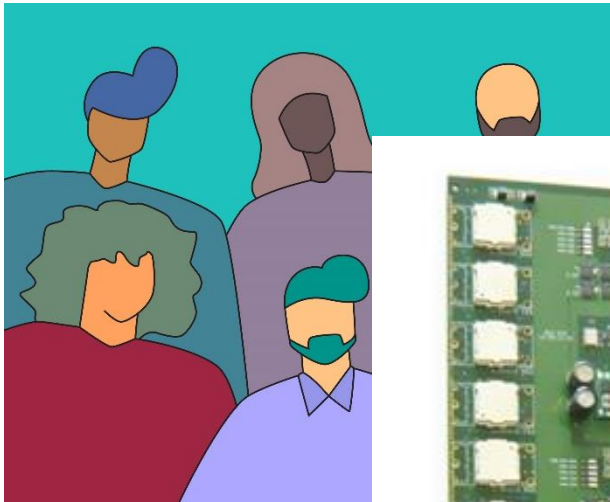
# Research questions

- How is the review process socially organized (actors, situations and settings, practices, temporal organization, output, etc.)?
- What happens in reviews? What is their role? Is it identical for different actors involved?
- **How do reviews shape the detector upgrade, and conversely, how do the goals, motivations, and constraints of the upgrade shape different reviews and the practices these reviews consist of?**

# Concepts and literature



prediction (Pietruska 2017)



# Different roles of technical review

- improving the design
- checking for oversights (materials, interfaces, powering, etc.)
- learning and getting experience (especially for junior members)
- documenting and clarifying (for archiving, for the reviewee, for the reviewers, and for the user, e.g. providing user guides)
- steering the upgrade work (for the management)

- Steering

“...We are, as you know we are a chaotic troop we don't, we are not a company, we are not military, everybody is doing what he or she wants, in principle, of course we are normally reasonable people and very smart people, we know what's needed and na na na, but then...ahm... there is a mechanism, these reviews are a mechanism to steer the projects in a certain way without telling them, telling somebody, you have to do this because I say it. We don't work like that in physics. You do it because you think it's the best and if you don't think it's the best I am going to convince you that it's the best. And the way to convince them that it's the best is that the committee says it. So, it's a bit the way to go about these reviews, yeah.”

former Upgrade Coordinator

“And of course, I was also following and giving my input, but the daily work on pushing the boards and so on and getting everything through the reviews and so on was on the upgrade coordinator.”

former Group Leader



- Documenting

“And then there might be a sort of user guide of this chip, so something which, is somebody wants to use this chip in a board, he needs to know which pins are which and which commands he gets and so on. So all that information goes into the talk that he is giving, and ideally, this information should be there one week before the meeting, such that the reviewers can look at it.”

former Upgrade Coordinator

- Clarifying

“I think actually that all this reviews are very helpful, so it looks like, well, it’s a pain to go through all these reviews, but for the project it’s very good, because you always get recommendation, and you are also forced to make your ideas more clear, and define what you really want to do.”

Senior Researcher

- Learning

“And then simply everyone with his idea, those are very lively discussions where everyone says what he thinks, it lasts for hours, and a lot more can be learnt than only by reading this document. This document is the motivation, has detailed studies, is very thick and takes a lot of time to... but it is not the same as when the experts are here so you hear it from them in person.”

Postdoc Researcher

## Research goal

- Besides answering the research questions, it would be helpful to provide a taxonomy of different ways in which the notion of review is used in ATLAS, and specify the practices, roles, and actors associated with them

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