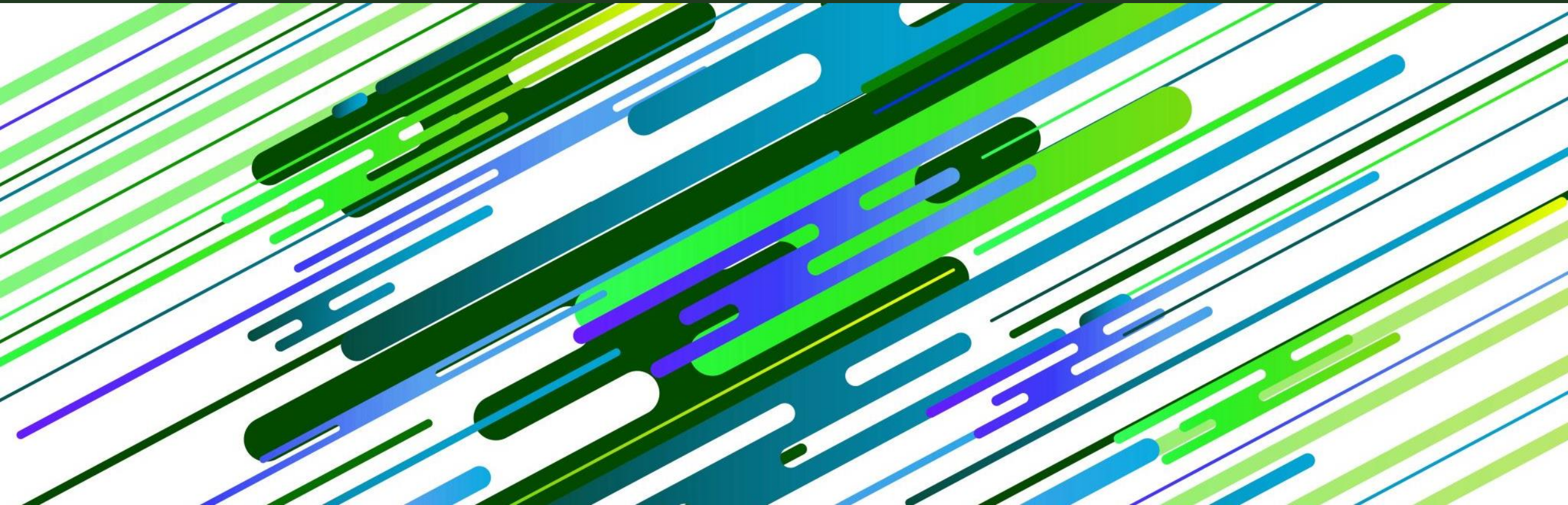
Summary

G. Lehmann Miotto



Charge Questions

1. Are the requirements documented? Are they reasonable?

2. Is the scope understood? Is there a team in place? Which institutions are interested?

3. Is there a reasonable plan for R&D and prototyping?

4. Is the design concept reasonable and feasible? Have appropriate mechanical and electrical calculations been performed?

Are the requirements documented and reasonable?

- → The requirements for the VD far detector are understood and documented
  - → Overall far detector requirements (TDR)
  - → The VD CDR will re-state and highlight the requirements: no changes expected for DAQ/SC
- → The requirements are reasonable and achievable
  - → The requirement of 30 s of continuous storage for a SNB candidate is reasonable; is the goal of 100 s of continuous storage needed? This does not have design implications, but cost.
  - → The requirement of reducing the data volume to 30 PB/y for the full far detector is reasonable; the push to extend the physics reach to lower energies wrt the DUNE goal, requires careful tuning of the trigger/filter and data compression

Is the scope understood? Is there a team in place? Which institutions are interested?

- → The scope of DAQ and SC for VD is understood
  - → Interface documents need to be revised/completed with all VD consortia (PDS, CALCI in particular)
  - → The 3D configuration produces more data than HD, but at manageable level
- → A team is in place but not complete
  - → The DAQ team can carry out the development, support, installation & commissioning programme, with careful planning
  - → The SC team is insufficient; SC for coldbox and ProtoDUNE-II relies on expertise at CERN
- → DAQ Institutions: Canada, CERN, Netherlands, UK, US

Is the design concept reasonable and feasible? Have appropriate mechanical and electrical calculations been performed?

- → We believe that the design concepts for DAQ and SC are reasonable
  - → More work is needed for the layout of the timing system, but the relevant experts are actively working on this
- → The feasibility is linked to the pledged resources becoming available timely
  - → SC is not covered sufficiently from an effort point of view
  - → DAQ is covered but may be stretched on the M&S
    - → Staging scenarios are possible and will not put the VD at risk
- → Mechanical and electrical requirements have been discussed and agreed upon with the technical coordination and I&I
  - → Room, racks, power & cooling for DAQ/SC underground is sufficient ; power & cooling for DAQ/SC on surface is scarse , but sufficient
  - → The DAQ is electrically decoupled from the VD, in order to avoid any noise injection
  - → The SC equipment is partially on detector ground; any connection to equipment on building ground is electrically decoupled