Harri Hellgren

System Integration Engineer

Skibotn, Norway

Electricity installations done up to transformers

Karesuvanto, Finland

Ready for house construction

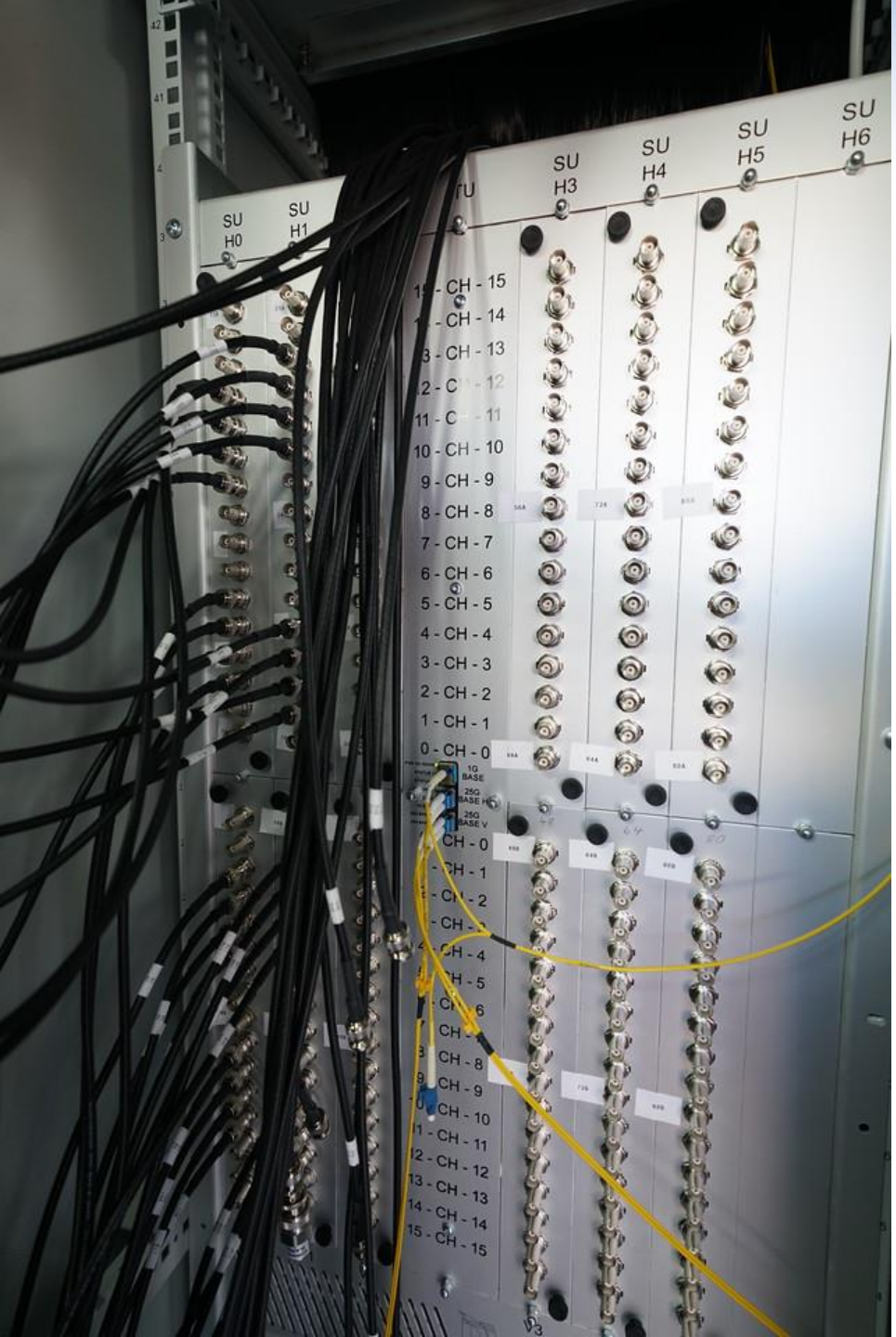
Kaiseniemi, Sweden

Groundwork contract signed

Antenna Unit

- Serial production of subarrays is on going
  - About 80% ready
- Installation is still under discussions:
  - Skibotn Autumn 20 or Spring 21

Receivers, FSRU

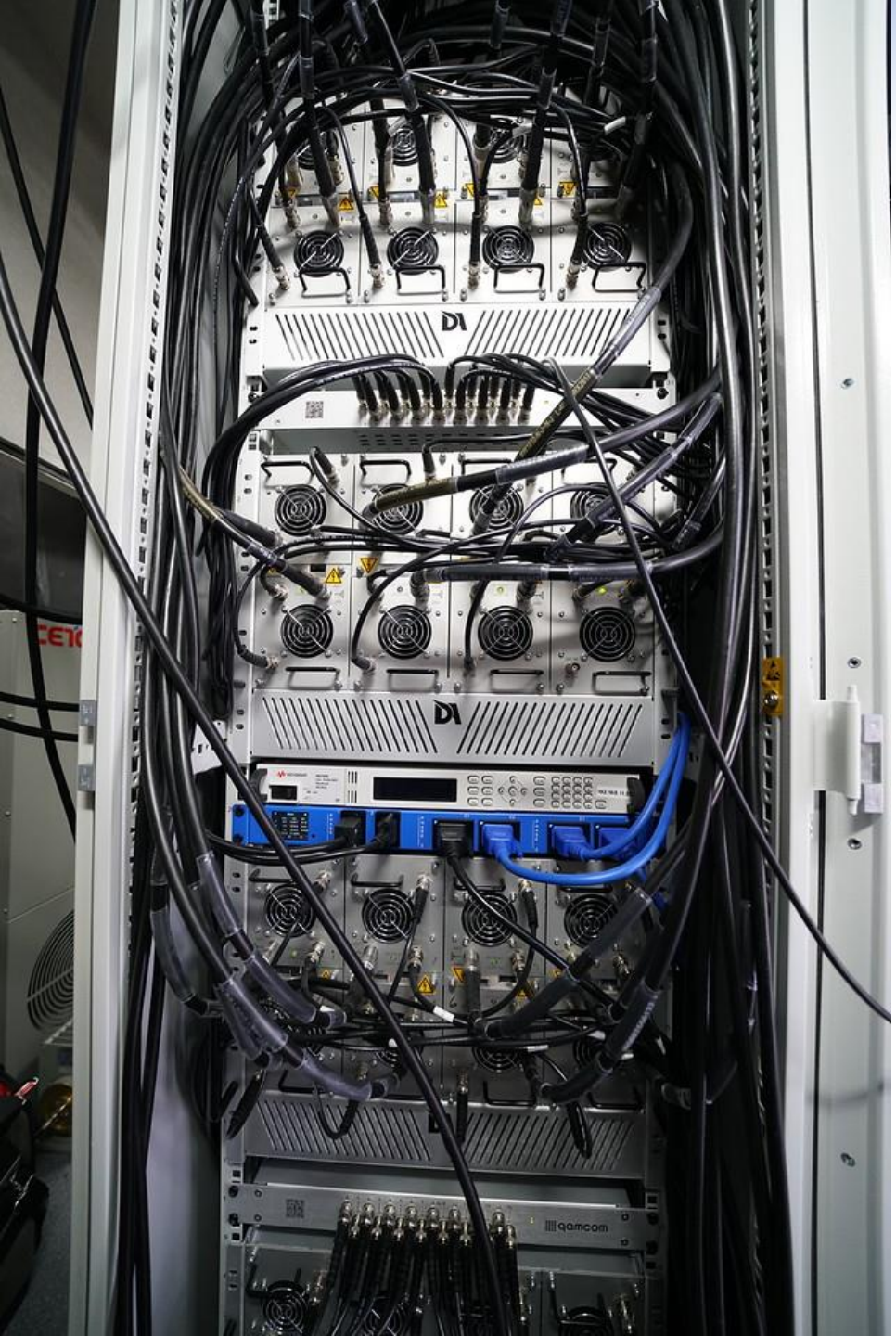


Two different models ordered:

- With high power limiters to Skibotn
- Low input power version to only receiver sites, 119 ready

Component shortages delayed the next serial production until April 22

Transmitters, SAT

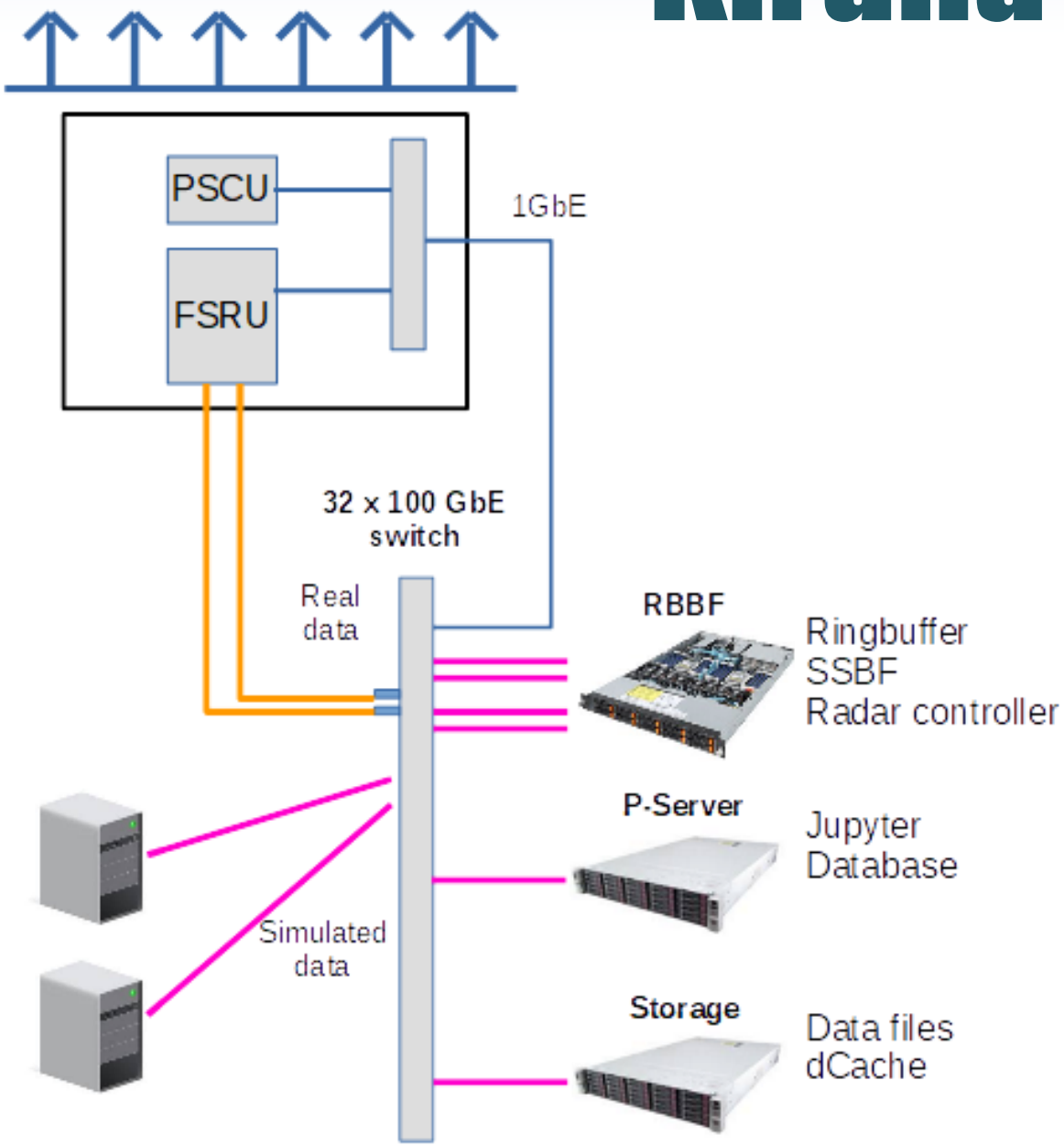


Component shortages delayed the serial production
First 30 devices: August 21
Rest: Spring 22

Exciter, PSCU

All components procured serial production has been delayed until August 2021

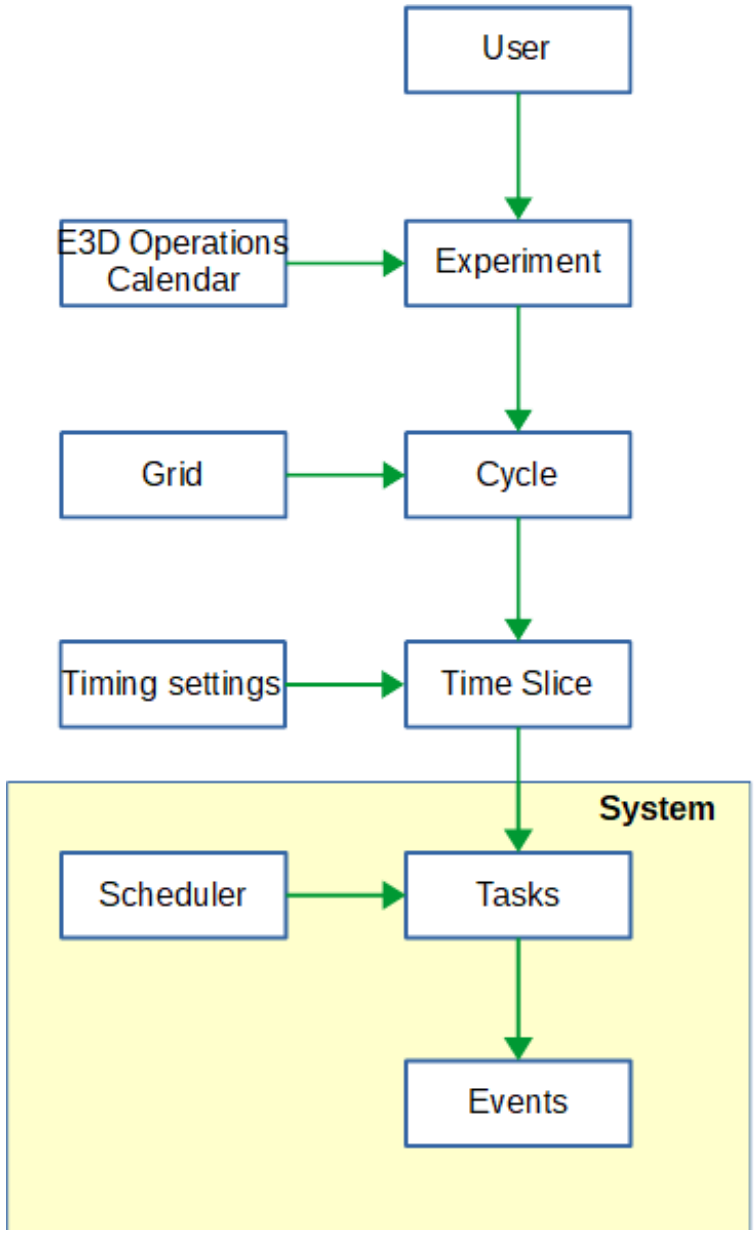
Kiruna Test Setup

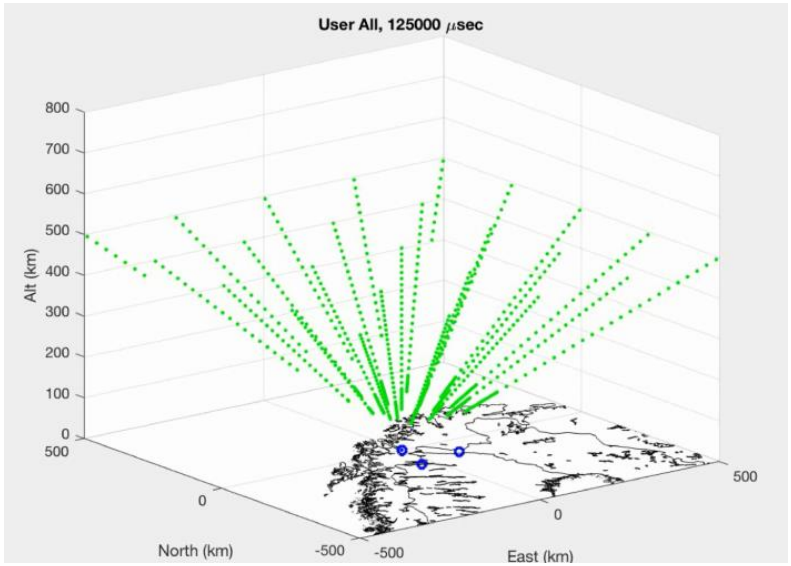


We have built a complete test setup into EISCAT Kiruna site. We can develop and test full E3D software stack here before any E3D site is ready.

- AMD EPYC server for real-time data flow,
- Intel server for supportive tasks
- Intel server for storage.
- Two AMD Ryzen PC for simulators.

Experiment Development





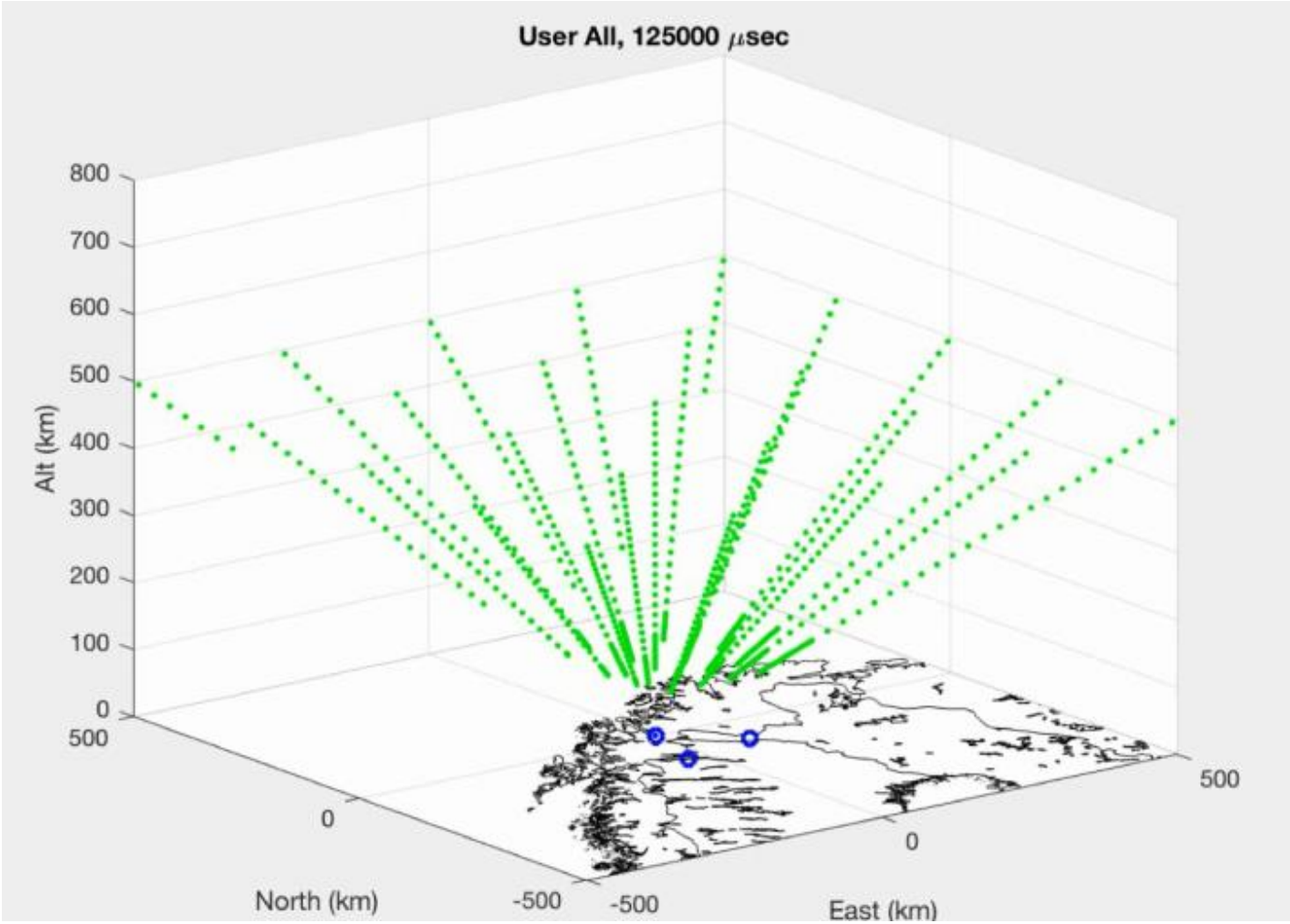
System has been developed from HW up and we are finally coming to phase where we need to think how different type of users are interacting with E3D radar.

Experiment Development

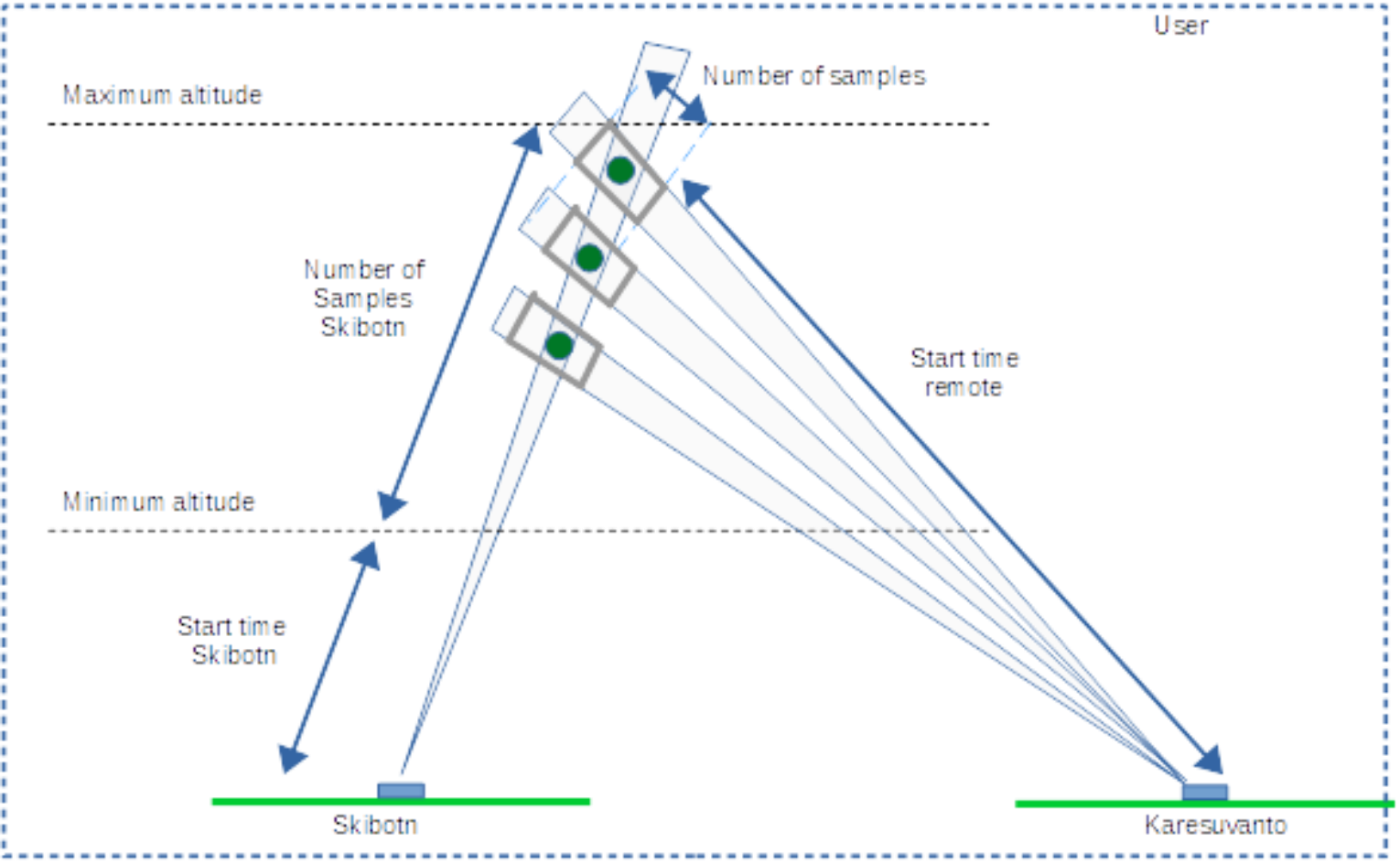
High level user interface should have means to define a volume and functions to calculate best way to scan that.

Libraries should show defined scan and inform any errors in the schema.

This grid should then be output as a description (e.g., in json format) with corresponding wide beams pointing directions and narrow beam offsets.



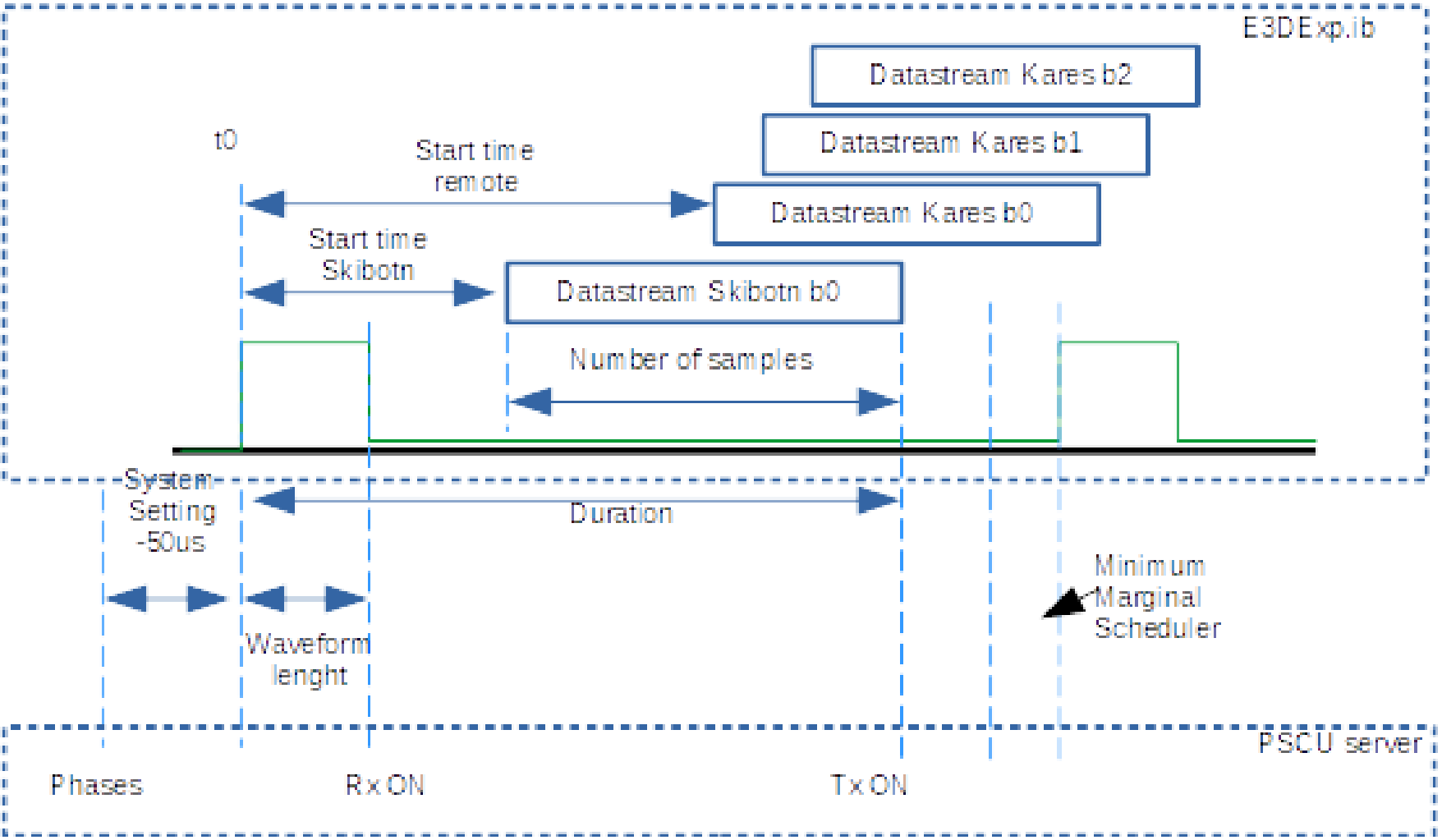
Middle Level Interface



High level libraries should break the designed scan to Time Slices which can be then coded to machine commands.

This is also interface for experienced user and for machine development.

Device Commands



Time Slices are then converted automatically to Hardware events and submit in to E3D radar operating system.

Events are stored to Database and consumed by the services for Radar hardware.

Experiment design and Scheduling