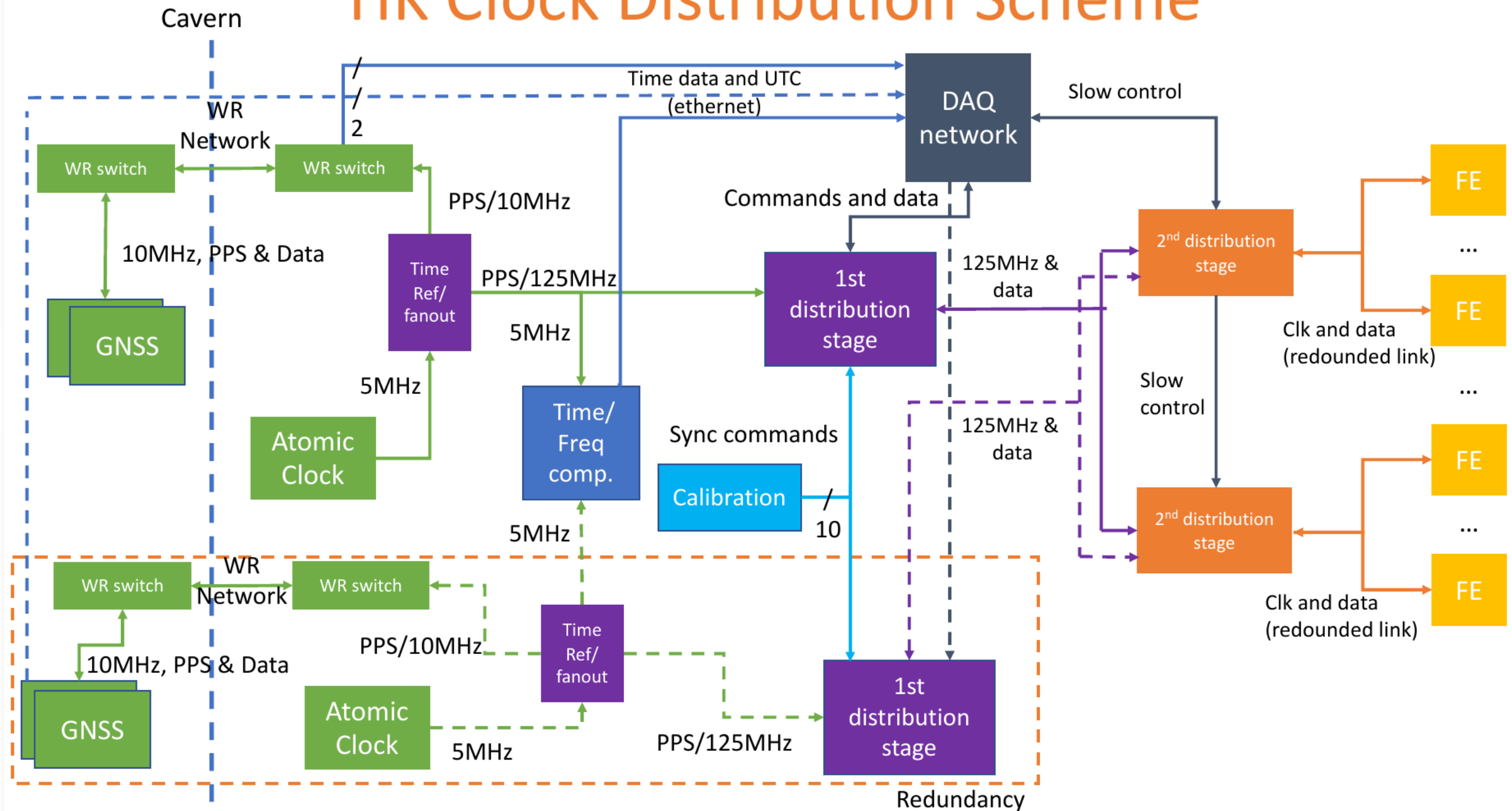


# Development of timing system

- Thanks to a successful R&D project (also supported by the TYL/FJPPL as NU08) a proposal for a timing system to be deployed at the Hyper-Kamiokande site has been developed
- A strong collaboration with the SYRTE laboratory at the Paris Observatory has been established
- Some equipment (Rb and PHM atomic clocks as well as GNSS receiver and antenna) has already been purchased, calibrated at SYRTE, then installed and extensively tested at LPNHE in Paris

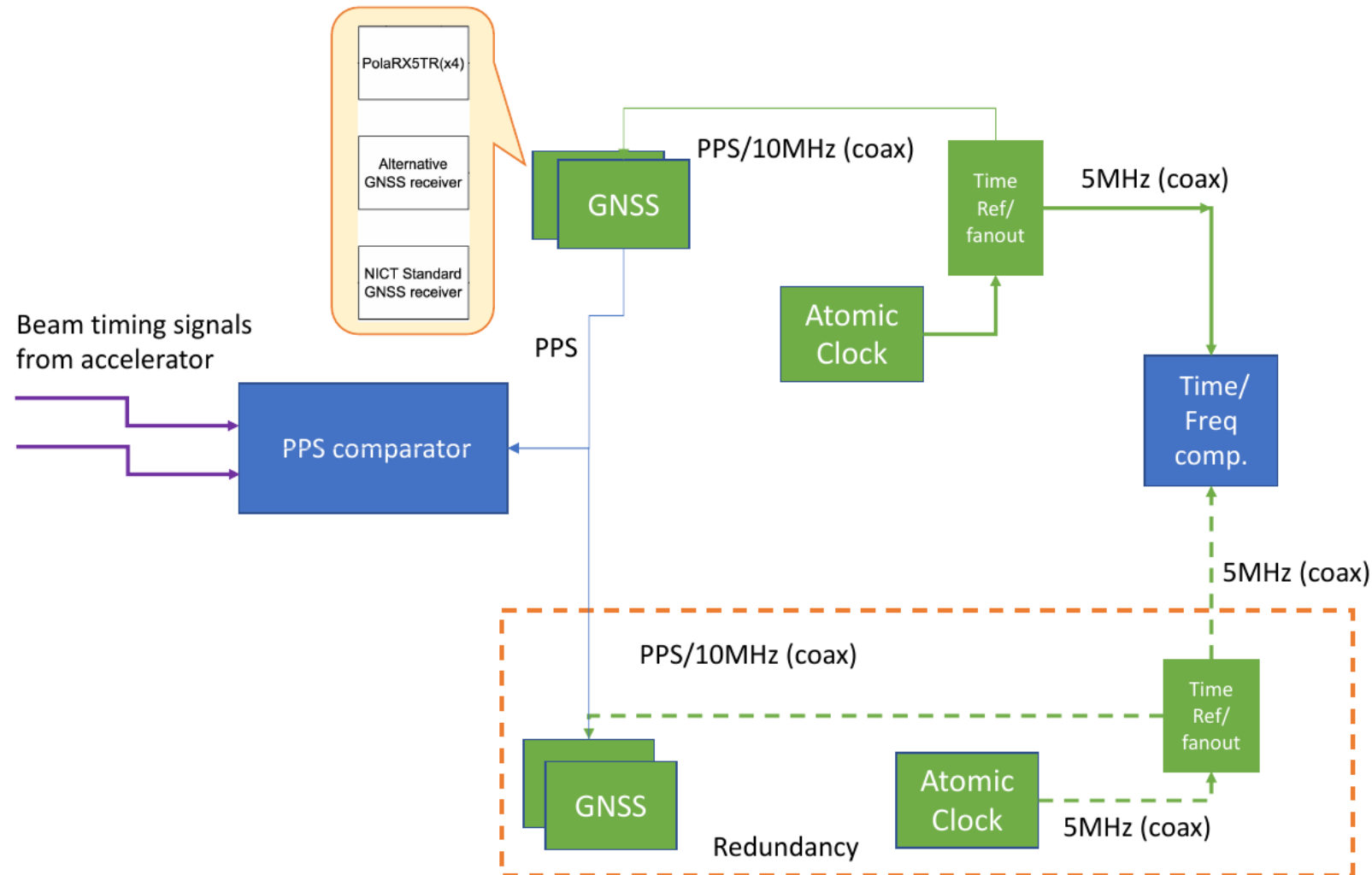
# HK Clock Distribution Scheme



# Development of timing system at J-PARC

- Based on this success, a new TYL/FJPPL project has been launched for the development and implementation of a similar timing system on the J-PARC site
- This system is crucial for the synchronization of events registered in Hyper-Kamiokande with the J-PARC neutrino spills

# Time System at J-PARC



Recently the collaboration has proposed to our group the design of the time generation system at J-PARC. This system would be very similar to the one at far detector. We estimate that our group would be capable to accomplish this task with the available human resources and the extra cost would be around 100k euro.