# Digital Subsystem

Real-time front-end control code is extremely specialized and highly customized to each subsystem. Developing the required expertise takes significant time and dedication. We urge the project to invest in this capability as early as feasible.

Answer by O. Miyakawa

- We keep distributing the stand-alone digital system to subsystems and requesting all subsystems to invest in developing real-time-front-end codes.

Stand-alone systems

- 5 stand-alone systems being developed :
  Pre-isolator test (VIS/ICRR), Data pre-processing (NAOJ/DetChar), Interferometer control (CLIO), R&D (U-Tokyo), Cryo-payload (ICRR)
- 6 more systems are under purchasing process.

# Data Analysis

We recommend postponing commercial computing hardware purchases as long as possible, as this will provide more computing power for a given budget.

Answer by N.Kanda:

- We agree to this, and have scheduled it as late as possible.

Changes after the previous external review:

- National budget for data analysis and multi-messenger astronomy was approved. So, some part of data transfer system (low-latency transfer system) will be prepared before iKAGRA observation.
- We are planning to use the next-generation (2014-2019) computer system at ICRR, which will have sufficient performance for KAGRA. Kanda and Miyoki are members of the committee to determine its specifications.
- Data Analysis subgroup was divided into two subgroups: DAS (Data analysis, H.Tagoshi) and DMG (Data Management, N.Kanda)