DBBC Technical Status Report

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- The hardware of the Core2 board is ready and has been tested. The Core2 uses Virtex 5 LX220 FPGAS, but can also be populated with the bigger 330 model. The initially planned DBBCs will have up to 32 MHz BW. DBBCs with larger BW are available for the Core1 and could be adapted to the Core2 modules.

- The firmware in its present version can provide 4 DBBCs (U+L) on one FPGA. The filter shapes have been improved. The tuning precision will be increased via a floating point LO.

- A fixed filter-bank firmware with real output is available, too, but still requires testing. The control software has to be upgraded from the core1 to the core2.

- Wettzell is working on the integration in the FS (see report).

- The first two DBBC.2 systems will be installed in Wettzell in October. A third system in Wettzell will be upgraded from ver.1 to ver.2 at the end of this year.

- Additional prototype backends DBBC.2 are under construction to be delivered to Effelsberg, Yebes, Noto, New Zeland. Two more systems already delivered in Arcetri and Irbene need to be upgraded to the ver.2. to be operative with the standard observing requirements, as they behave only few Core1 boards.

- FILA10G the interface between the DBBC (or any VSI device) to 10G network is still under development. A new collaborator in MPI is continuing the activity left by a former collaborator in developing the network part of the FPGA. The board will be interface for the MK5C or as direct connection to the network at 1–2–4–10–20 Gbps. It can be used as standalone element between VSI and network.

- The backend will be produced by a spin-off company named HAT-Lab which will start operation probably in October, as numerous bureaucratic procedures have been necessary that took much longer than expected. At the formal set a message to EVNtech mailing list indicating also the name of the person who will be interface between users and the spin-off company.

- Price depends on the configuration (see the WA email) for a complete system: Input from a receiver – output to VSI connectors. Single set AD+CORE2 cost is around 6K€.

- Delivery time now improved because of a new technician has been hired in MPI for working on the project only. From order to delivery almost three-four months time will be necessary.