The new control system will be based on Beckhoff PLC (see Fig. 3) and will be organized as follows (see Fig. 2 for a general overview and Fig. 4 for a more detailed overview).

In the control room the CPD CX1030 will be installed with the Beckhoff modules needed to control the devices hosted here.

The functions that will be controlled by the modules in the room are:

- Power on and off the PC in the control room
- Manage the movement of the roof through the SIEMENS MICROMASTER 440 inverter.
- Manage the signal that will come from the weather sensor Boltwood Cloud II
- Manage the movement of the roof through the SIEMENS MICROMASTER 440 inverter.

In the telescope room the decentralization features of the Beckhoff PLC are exploited and a new row of PLC modules is foreseen. The CX1030 module will assure the continuity of the EtherCAT communication from the CPU in the control room.

The functions that need to be controlled in the telescope rooms are:

- Power on and off the electrical outlets: TELESCOPE, CCD, CORONADO, EK1100
- Switch on and off the warning light and buzzer that announce the movement of the joystick. In fact, a simple interface circuit will be built to allow this movement.
- Move the telescope in the park position if needed (i.e. if the signal of the weather sensors are not suitable for the telescope, the telescope motor is activated to move it to the park position).
- Read the status of the position of the telescope. Two positioning sensors will be placed on the telescope in order to control if the telescope is in the position of the joystick.
- Move the telescope in the park position if needed (i.e. if the signal of the weather sensors are not suitable for the telescope, the telescope motor is activated to move it to the park position).