

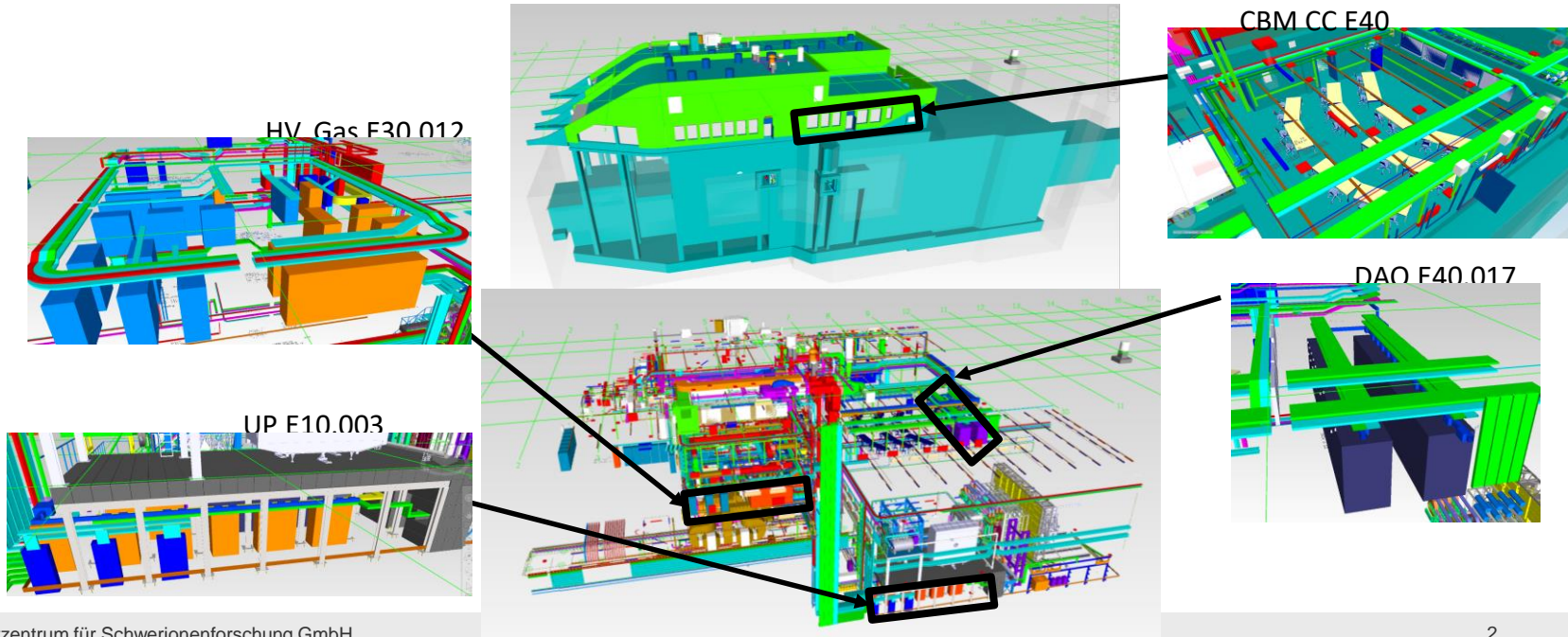


CAVE - CBM services

46th CBM Collaboration Meeting
Jens Thaufelder (GSI)

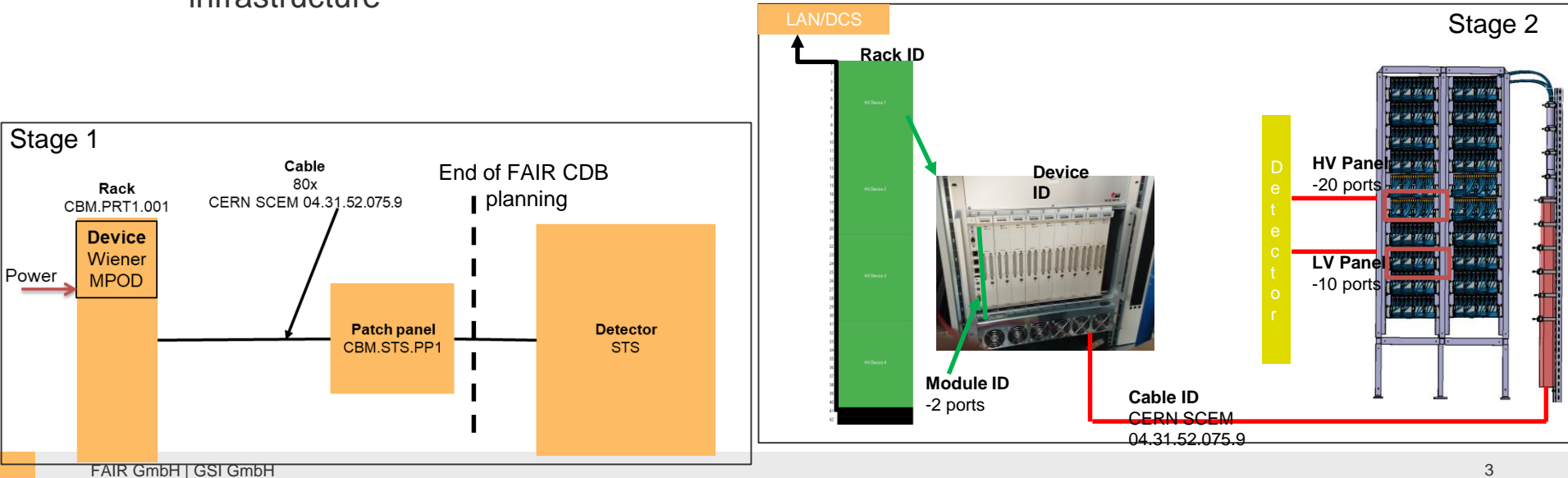
Overview Rooms of interest

- LV racks under the upstream platform in the cave
- HV racks and gas on the supply level E30
- DAQ racks next to the control room



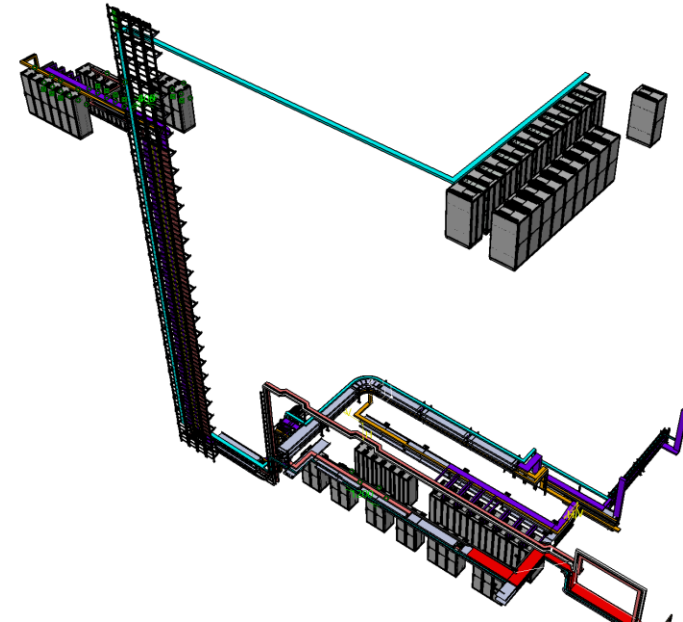
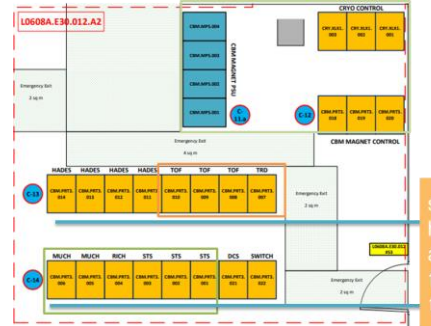
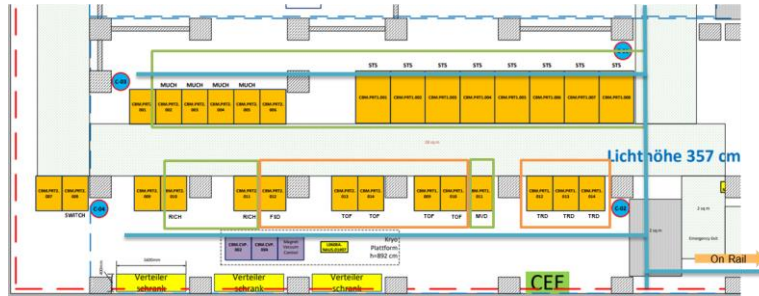
CBM Cabel planning



- Cable planning was divided into two stages
 1. Collecting cable information for HV, LV and DAQ and for planning cable cross-sections and routes
 2. Detailed planning of racks with crates and the necessary infrastructure



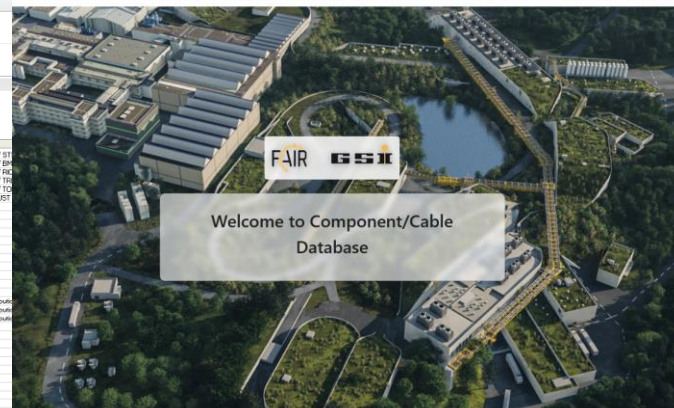
Stage 1

- Racks and patch panels were defined for all systems.
- Using the information collected about HV, LV and DAQ cables, routing between the racks, PP and systems was carried out in CAD.



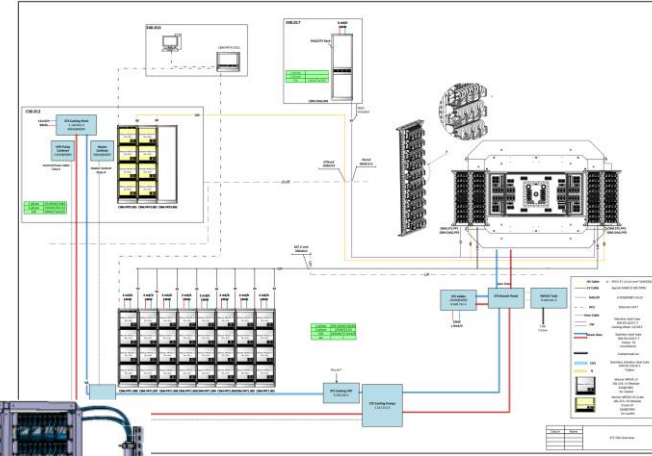
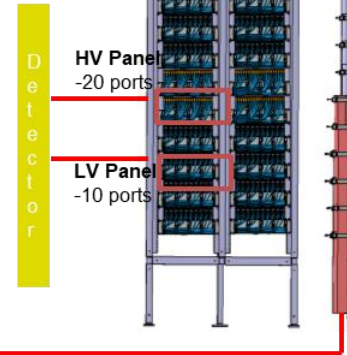
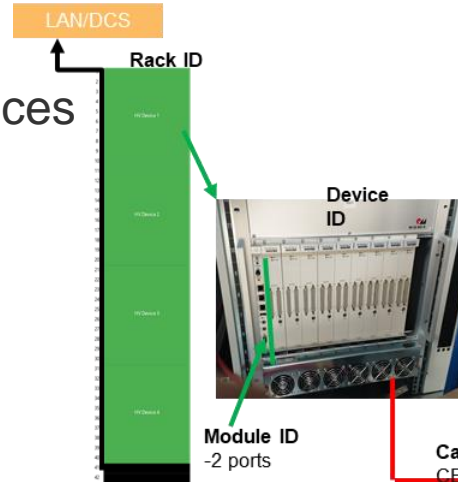
- | | Name | Size | Last modified date |
|---|--------------------------------------|---------|---------------------|
|  | CableTypes.rar | 12.7 MB | 2025-10-02 15:22:37 |
|  | cable_lists_template_v202404242.xlsx | 22.8 KB | 2025-10-02 15:22:38 |

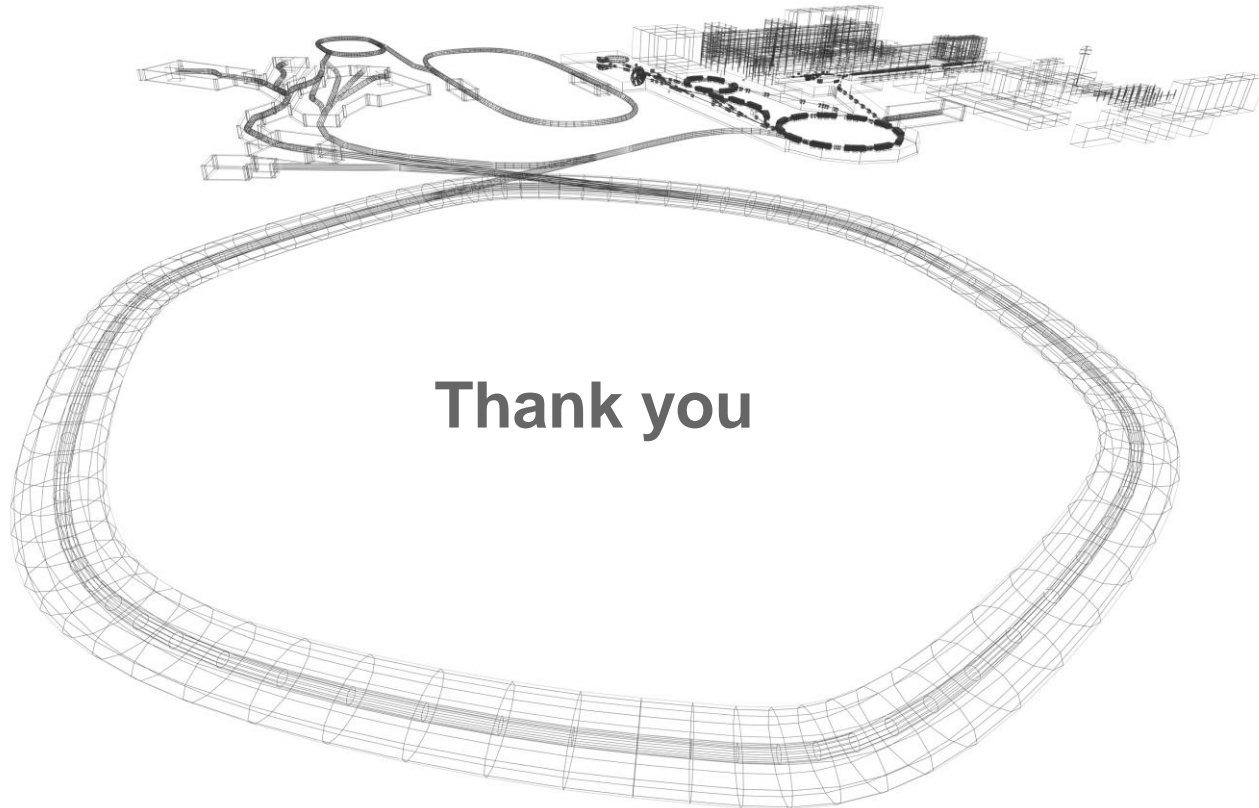
Quantity	Owner	User Special Requirements	Technical Specs Cable No.	Actual Tender	MSV	Machine	System	Station Function	EMC Class	Estimated Length	Max Length	User Cable Type	Cable Type	Remarks
14	CEBR	Preise length + Phased-simble cable	CEBR	stratae	0-3	CEBR		QAQ	4 - Fiber Glass	99	U-0Q02NHEN 10-12	CEBRQAQ 07 ST		
14	CEBR	Preise length + Phased-simble cable	CEBR	stratae	0-3	CEBR		QAQ	4 - Fiber Glass	99	U-0Q02NHEN 10-12	CEBRQAQ 07 BR		
16	CEBR	Preise length + Phased-simble cable	CEBR	stratae	0-3	CEBR		QAQ	4 - Fiber Glass	99	U-0Q02NHEN 10-12	CEBRQAQ 07 PR		
16	CEBR	Preise length + Phased-simble cable	CEBR	stratae	0-3	CEBR		QAQ	4 - Fiber Glass	99	U-0Q02NHEN 10-12	CEBRQAQ 07 BL		
16	CEBR	Preise length + Phased-simble cable	CEBR	stratae	0-3	CEBR		QAQ	4 - Fiber Glass	99	U-0Q02NHEN 10-12	CEBRQAQ 07 BT		
40	CEBR	Preise length + Phased-simble cable	CEBR	stratae	0-3	CEBR		QAQ	3 - Signal	60	U-0Q02NHEN 10-12	CEBRQAQ 07 ST		
80	CEBR		CEBR	stratae	0-3	CEBR		STSHV	3 - Signal	60	U-2YH 37 0.8 mm ²	STSHV light		
80	CEBR		CEBR	stratae	0-3	CEBR		STSHV	3 - Signal	90	U-2YH 37 0.8 mm ²	STSHV light		
40	CEBR		CEBR	stratae	0-3	CEBR		STSHV	3 - Signal	25	Special SABES 0.35 FRNC	STSHV light		
40	CEBR		CEBR	stratae	0-3	CEBR		STSHV	1-Power	25	Special SABES 0.35 FRNC	STSHV light		
40	CEBR		CEBR	stratae	0-3	CEBR		STSHV	1-Power	25	Special SABES 0.35 FRNC	STSHV light		
40	CEBR		CEBR	stratae	0-3	CEBR		STSHV	1-Power	25	Special SABES 0.35 FRNC	STSHV light		
40	CEBR		CEBR	stratae	0-3	CEBR		STSHV	1-Power	25	Special SABES 0.35 FRNC	STSHV light		
40	CEBR		CEBR	stratae	0-3	CEBR		STSHV	1-Power	25	Special SABES 0.35 FRNC	STSHV light		
250	CEBR		CEBR	stratae	0-3	CEBR		TOF LV	3 - Signal	99	CLPULS 100A 100V 600V 408	Tof LV		
250	CEBR		CEBR	stratae	0-3	CEBR		TOF HV	3 - Signal	99	HRGSB-20 coax	Tof HV Dumbbut		
200	CEBR		CEBR	stratae	0-3	CEBR		TOF HV	3 - Signal	99	HRGSB-20 coax	Tof HV Dumbbut		
100	CEBR		CEBR	stratae	0-3	CEBR		TOF HV	3 - Signal	99	HRGSB-20 coax	Tof HV Dumbbut		
100	CEBR		CEBR	stratae	0-3	CEBR		TOF HV	3 - Signal	99	HRGSB-20 coax	Tof HV Dumbbut		
40	CEBR		CEBR	stratae	0-3	CEBR		TRCLV	1-Power	21	SHF ULCSA sch w2 2 x 8 mm2	TRD 1d		
40	CEBR		CEBR	stratae	0-3	CEBR		TRCLV	1-Power	21	SHF ULCSA sch w2 2 x 8 mm2	TRD 1d		
4	CEBR		CEBR	stratae	0-3	CEBR		TRCLV	3 - Signal	21	SHF ULCSA sch w2 2 x 35 mm2	TRD 3d		
4	CEBR		CEBR	stratae	0-3	CEBR		MDGLV	1-Power	20	CLPULS CLASSIC 10 5000 TS	MDGLV light		
4	CEBR		CEBR	stratae	0-3	CEBR		MDGLV	1-Power	20	CLPULS CLASSIC 10 5000 TS	MDGLV light		
4	CEBR		CEBR	stratae	0-3	CEBR		MDGLV	1-Power	20	MDGSG-4P 100S VG 952R 160	MDGLV light		
4	CEBR		CEBR	stratae	0-3	CEBR		MDGLV	1-Power	20	MDGSG-4P 100S VG 952R 160	MDGLV light		
294	CEBR		CEBR	stratae	0-3	CEBR		RDCHAQ	4 - Fiber Glass	30	Commoned Duplex Type0010 DBR-L DPA-Multimode	RDCHV		
6	CEBR		CEBR	stratae	0-3	CEBR		RDCHV	3 - Signal	75	HRGSB-20 coax	RDCHV		
6	CEBR		CEBR	stratae	0-3	CEBR		RDCHV	3 - Signal	75	HRGSB-20 coax	RDCHV		
24	CEBR		CEBR	stratae	0-3	CEBR		RDCHV	1-Power	25	Stechum UL 257R 80V 22AWG	RDCHV		
24	CEBR		CEBR	stratae	0-3	CEBR		RDCHV	1-Power	25	Stechum UL 257R 80V 22AWG	RDCHV		
24	CEBR		CEBR	stratae	0-3	CEBR		RDCHV	1-Power	25	Stechum UL 257R 80V 22AWG	RDCHV		
24	CEBR		CEBR	stratae	0-3	CEBR		RDCHV	1-Power	25	Stechum UL 257R 80V 22AWG	RDCHV		
300	CEBR		CEBR	stratae	0-3	CEBR		F3D HV	3 - Signal	99	MDGSG-4P 100S VG 952R 160	F3D HV (maybe change to multipl)		
40	CEBR		CEBR	stratae	0-3	CEBR		MUST LV	3 - Signal	99	CLPULS 100A 100V 600V 408	MUST LV		
20	CEBR		CEBR	stratae	0-3	CEBR		MUST HV	3 - Signal	60	SL-VZV-CH252	MUST HV		



Next steps

- Detailed planning of racks and crates
 - power requirement
 - space utilisation and optimisation
 - cooling
 - detailed cable routing on racks and PP
- DCS cable
- Additional services
 - gas
 - cooling
 - others





Thank you