JRA1 – Status of Mechanics, Cooling and Infrastructure
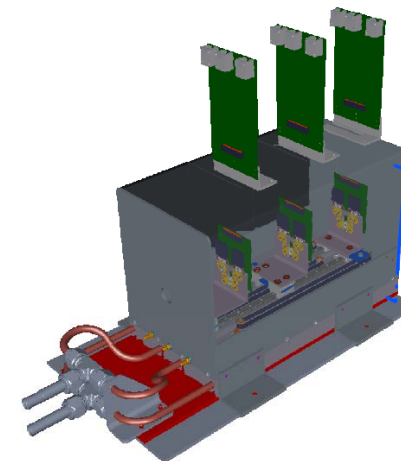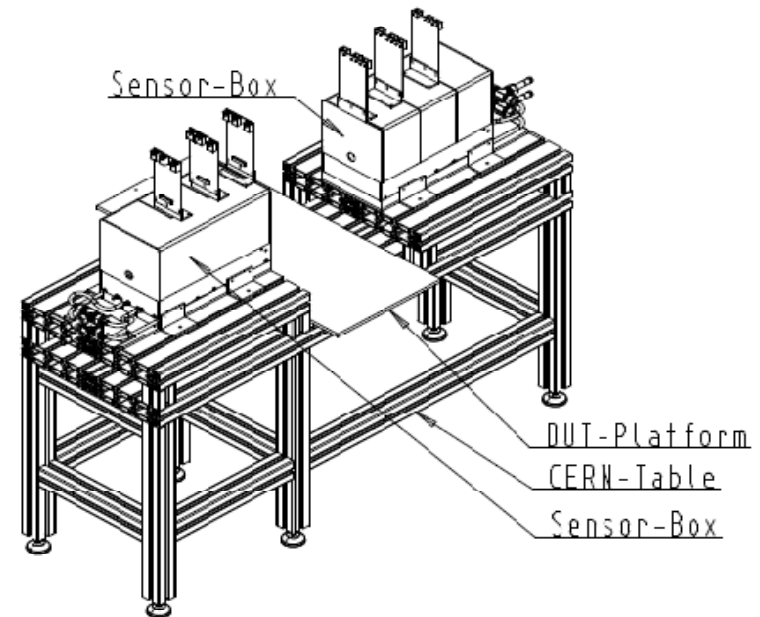
Ingrid-Maria Gregor, DESY
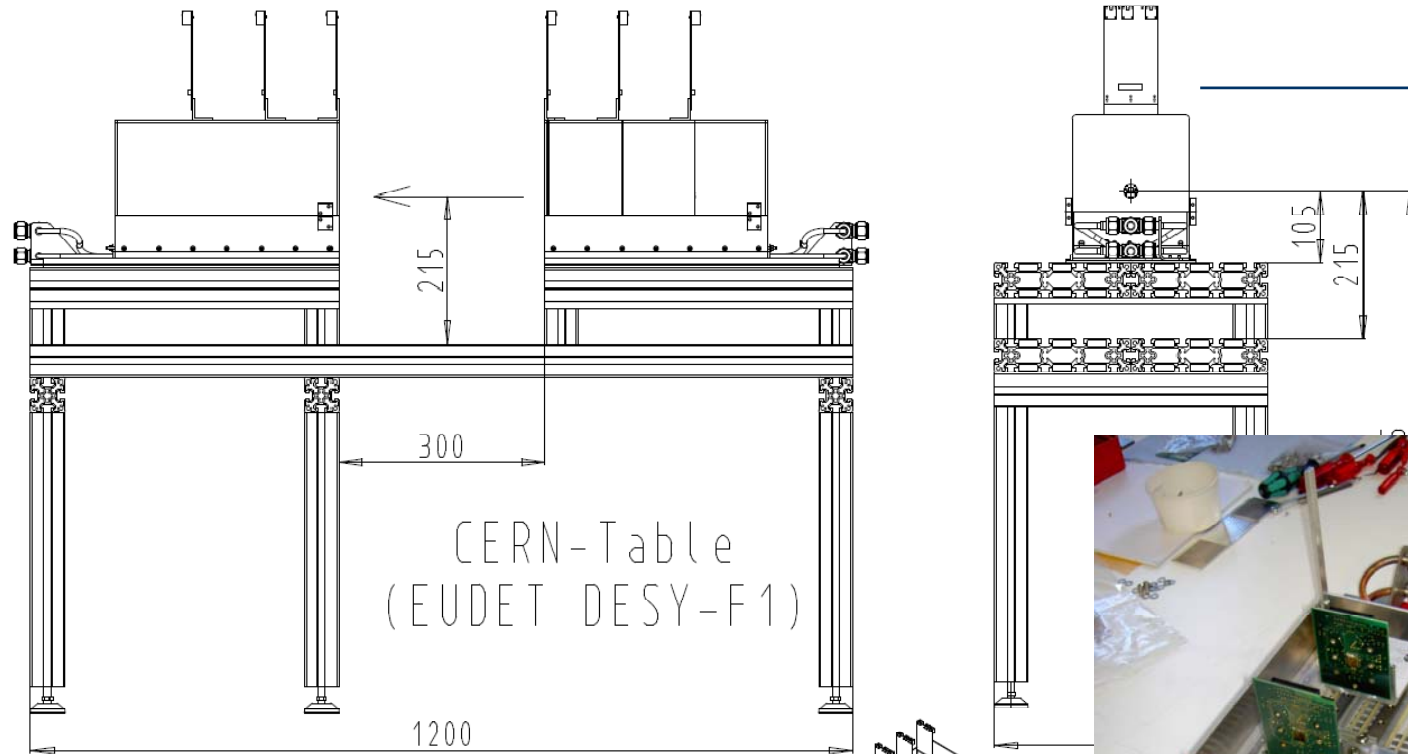EUDET Annual Meeting, Paris 2007

Mechanics

- ❑ For CERN Testbeam the original mechanics was used for the first time

- ❑ Two boxes with 3 sensors each
- ❑ Distances 10 cm within one box, 34 cm from one box to the next
- ❑ Big gap for users DEPFET and SiLC

- ❑ Features:
  - ❑ Cooling from below -> no risk of watering the sensors
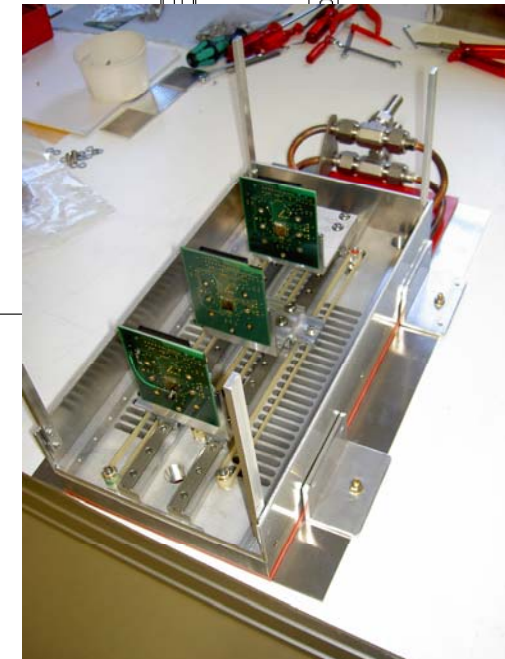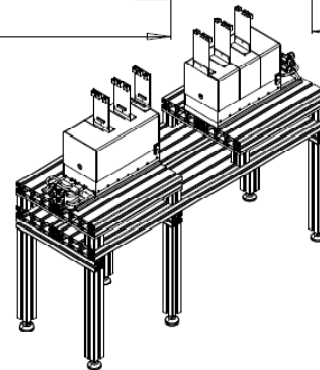 - ❑ Positions adjustable

Mechanics for CERN Testbeam

❑ Table size adjusted to
space and height of
CERN testbeam

Mechanics
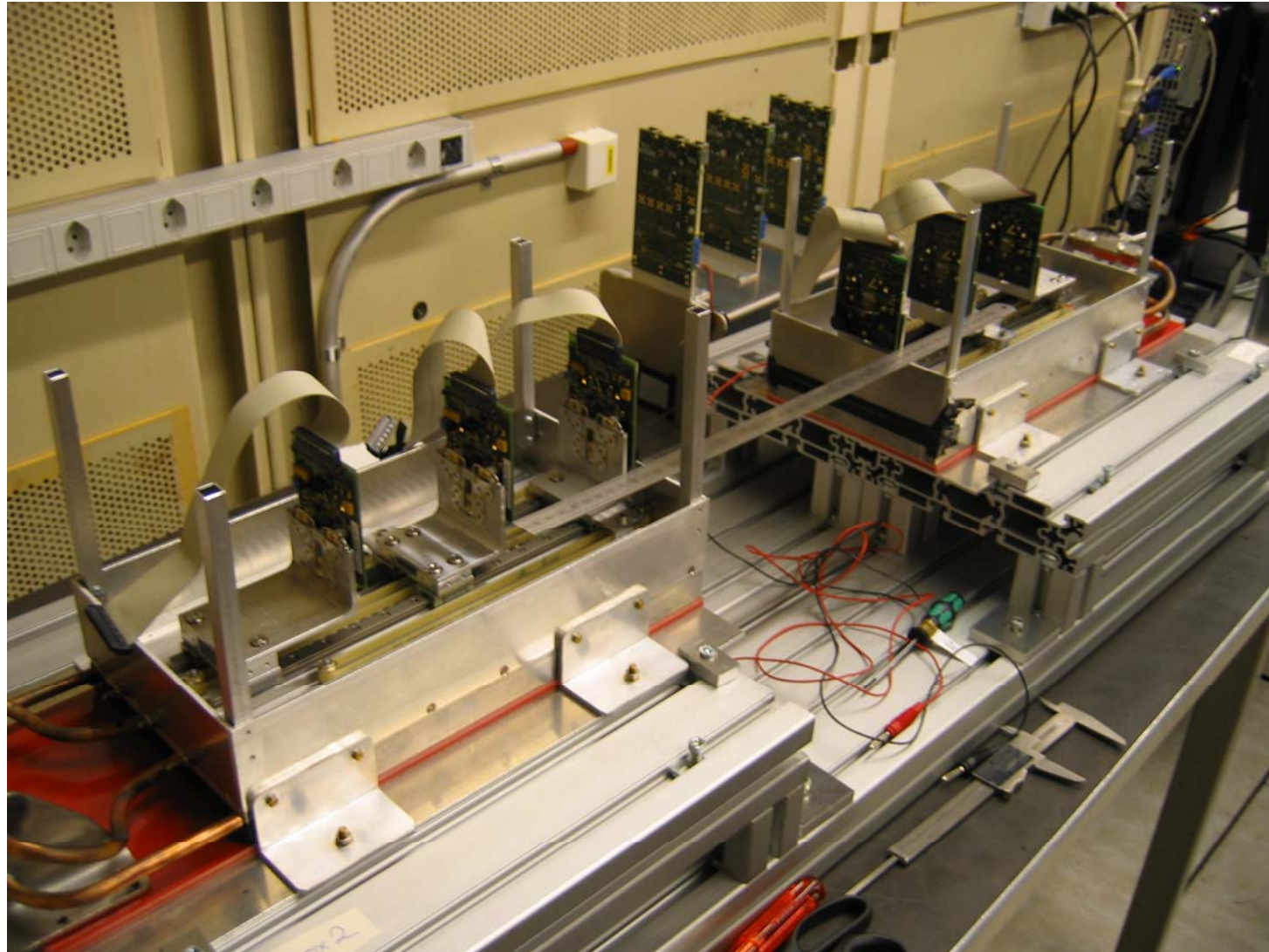
On the Crane
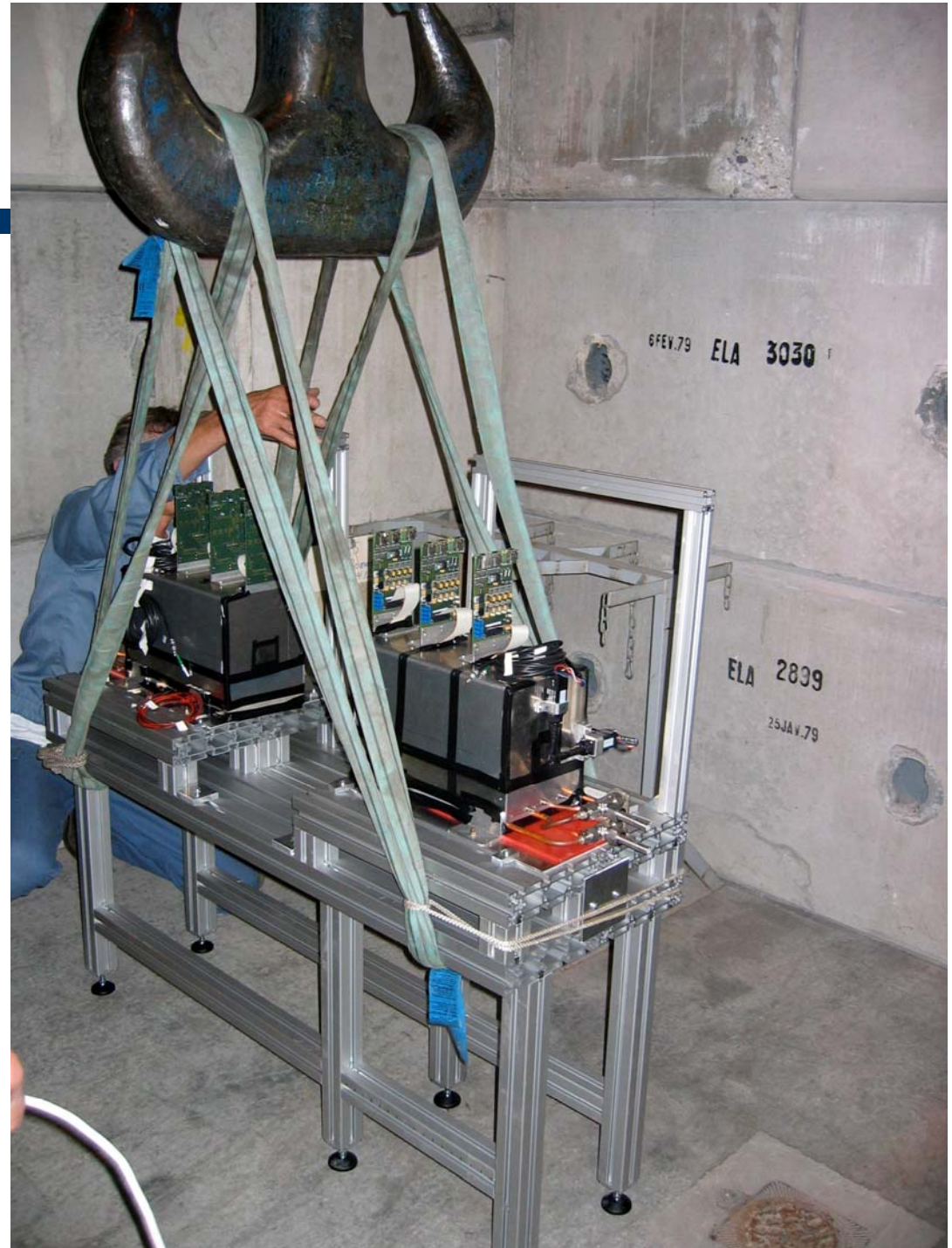
Telescope in H8
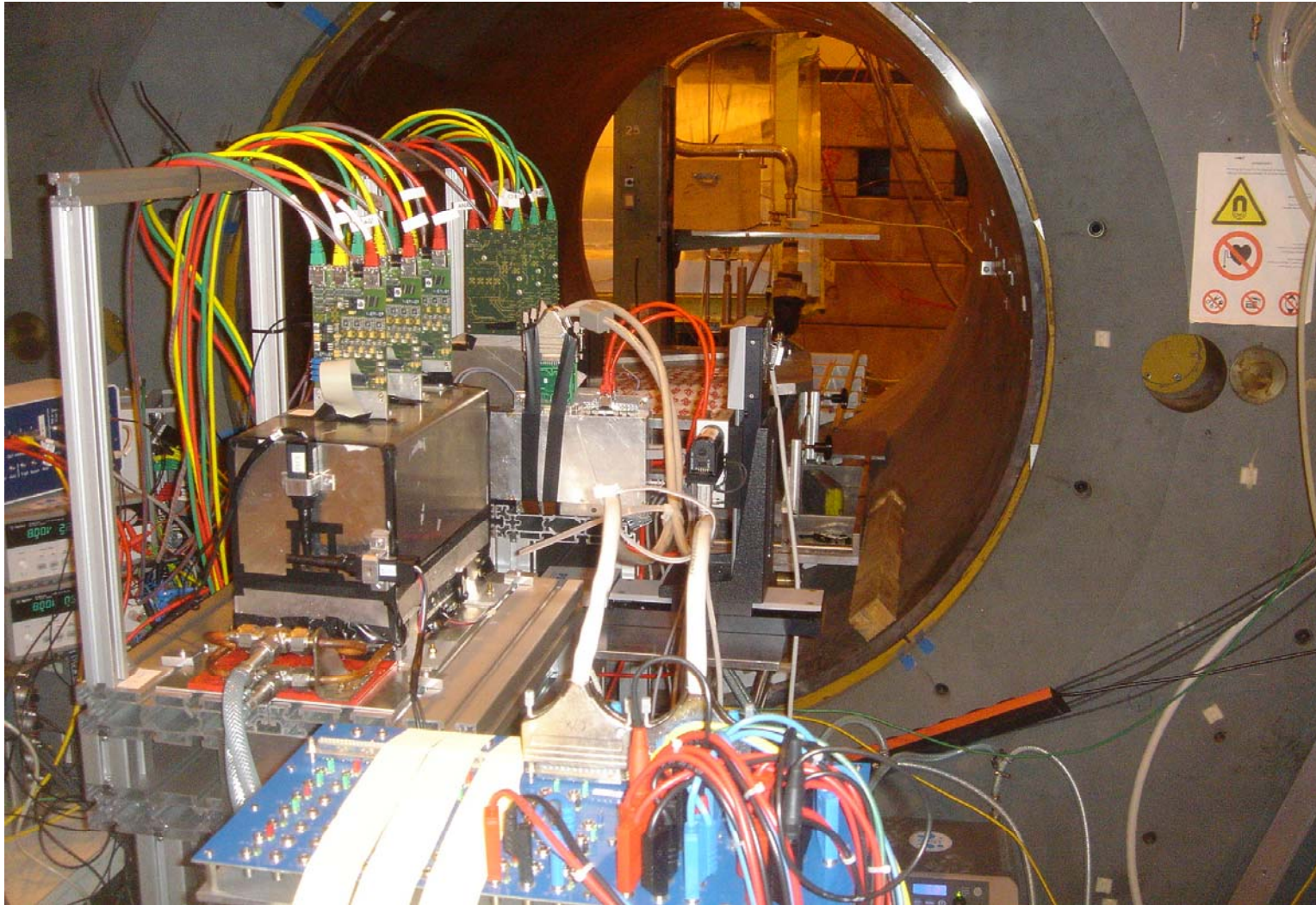
Complete Setup
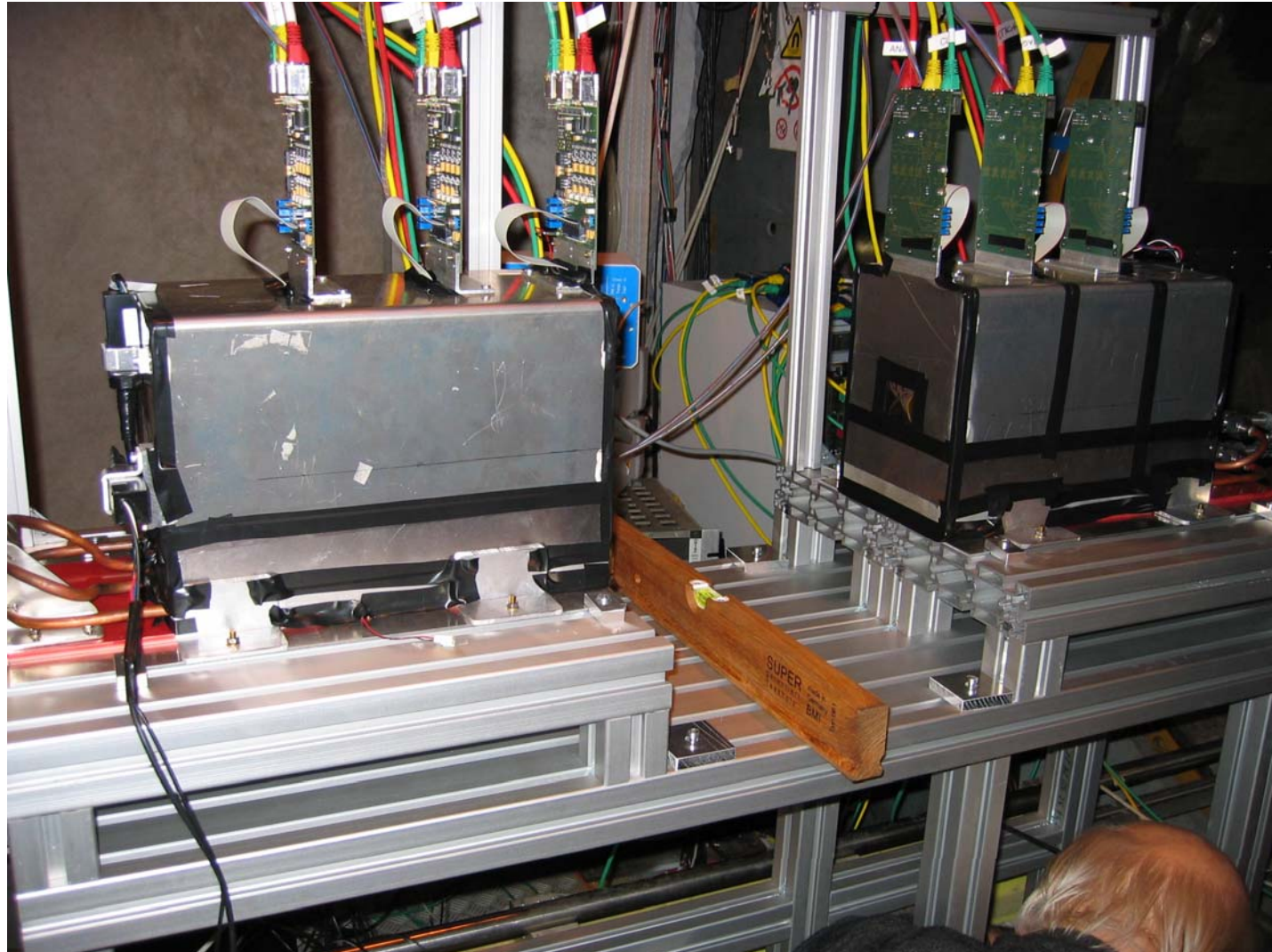
Close up
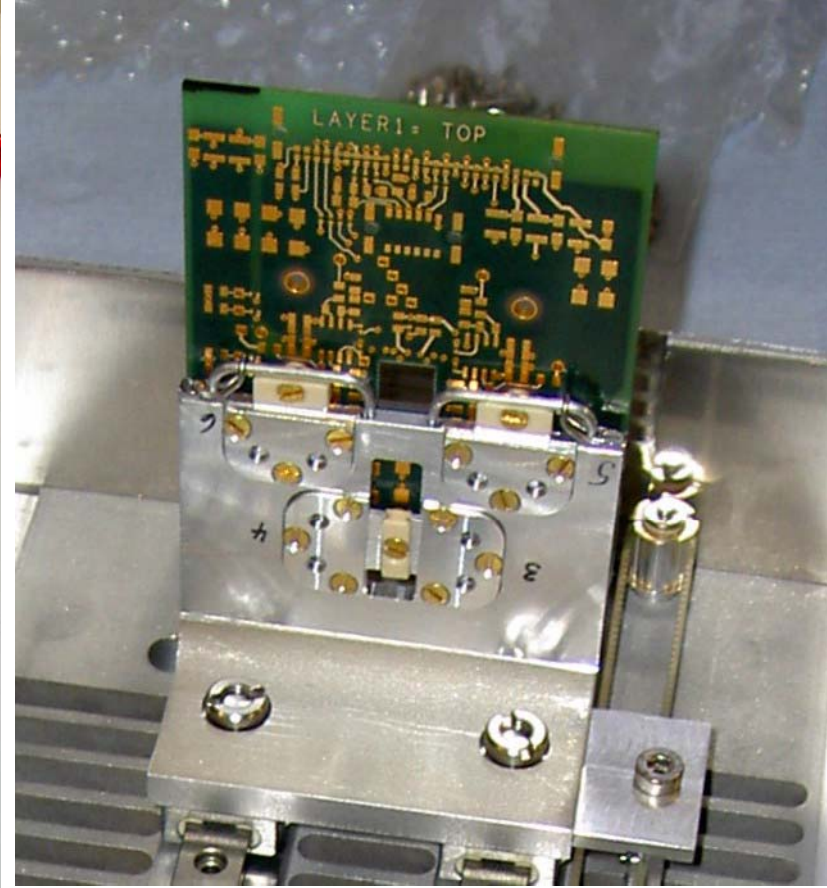
Problems and Next Steps

- ❑ Sensor board support more complicated than expected
- ❑ Fixation loosened a bit during transport to CERN ->alignment gone
- ❑ At CERN rejusted boards as good as possible

- ❑ Cooling of support of mechanics works well but thermal contact to sensor boards is not sufficient

- ❑ New design of L-pieces under way: less complicated and better connection to cooling (Carsten Muhl)

Cooling

- ❑ In order to provide sufficient cooling we bought a larger cooling device: Huber ministat 240-3

- ❑ Refrigerated Heating Circulator Bath with air-cooled cooling machine

- ❑ Powerful, variable speed, pressure and suction pump, housing of stainless steel

- ❑ CFC and H-CFC free.

- ❑ With adjustable overtemperature protection according to DIN 12876.

- ❑ Our experience: very easy to use

Infrastructure

- With the journey to CERN we learned how much stuff is really needed
- Detailed hardware list available

- Telescope is given to SiLC now, they will take care of transport back to Hamburg

Item	Description	Quan.	Where now	How to CERN	Comment
1	Sensors	8	DESY	DESY Car	
2	AUX boards	7	DESY	DESY Car	
3	Mechanics	1	DESY	DESY Car	item 1-3 in one big box
4	Power Supplies	2	DESY	DESY Car	
5	Power Cables	7	DESY	DESY Car	Make new and longer ones!
6	Cooling machine	1	DESY	DESY Car	which one?
7	Cooling liquid	1	DESY	DESY Car	
8	XYZ Table	1	Bonn	Bonn	
9	Computer for XYZ	1	Bonn	Bonn	
10	Adapter for DEPFET	1	Bonn	Bonn	
11	TLU	1	DESY	DESY Car	
12	RJ45 cable red	7	DESY	DESY Car	
13	RJ45 cable yellow	14	DESY	DESY Car	
14	RJ45 cable green	14	DESY	DESY Car	
15	Level adapter	7	DESY	DESY Car	
16	VME crate	1	DESY	DESY Car	with EUDRBs
17	Linux PC	1	CERN	Daniel	incl. screen
18	EUDRB	5	DESY	DESY Car	
19	EUDRB	2	Como	Angelo ?	
20	Network cable	2	DESY	DESY Car	mindestens ein langes!
21	MAC PC	1	CERN	Daniel	incl. screen
22	NIM crate	2	DESY	DESY Car	
23	Scaler	2	DESY	DESY Car	
24	Discriminator	1	DESY	DESY Car	
25	fan in/ fan out	2	DESY	DESY Car	
26	Coincidence	3	DESY	DESY Car	
27	Trigger + PMTs	5	DESY	DESY Car	
28	Power Supply for PMTs	1	DESY	DESY Car	
29	Lemo Cable (asorted)	1	DESY	DESY Car	this should be a selection of cables
30	Tool Box	1	DESY	DESY Car	
31	Soldering Iron	1	DESY	DESY Car	
32	Solder wire	1	DESY	DESY Car	
33	Support frame for cables	1	DESY	DESY Car	
34	Oscilloscope	1	DESY	DESY Car	
35	DVM	1	DESY	DESY Car	
36	Adapter for Swiss conn.	x			Uli?
37	Power strips (220V)	5	DESY	DESY Car	with swiss connector!
38	Stecker Verteiler (220V)	3	DESY	DESY Car	
39	Wasserwaage	1	DESY	DESY Car	
40	Laser	2	DESY	DESY Car	
41	Bandmass	1	DESY	DESY Car	
42	Schlauch fuer Kuehlung	1	DESY	DESY Car	genuegend lang
43	Schalterdraht incl. Draht	1	DESY	DESY Car	
44					