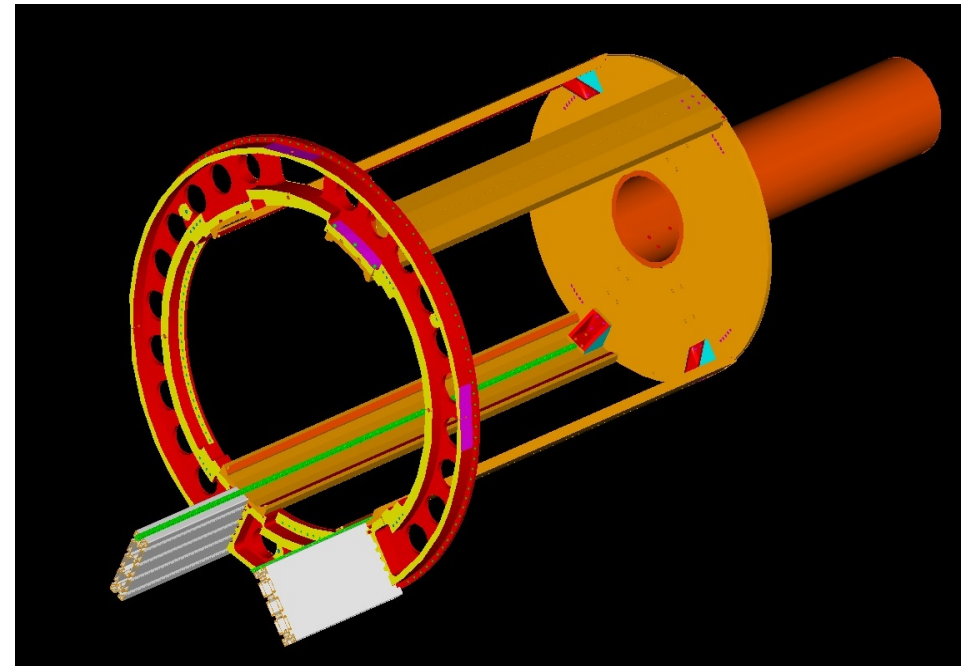
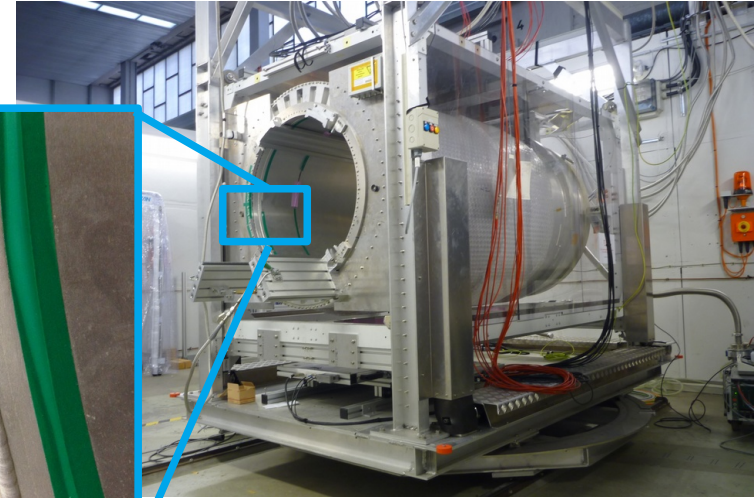


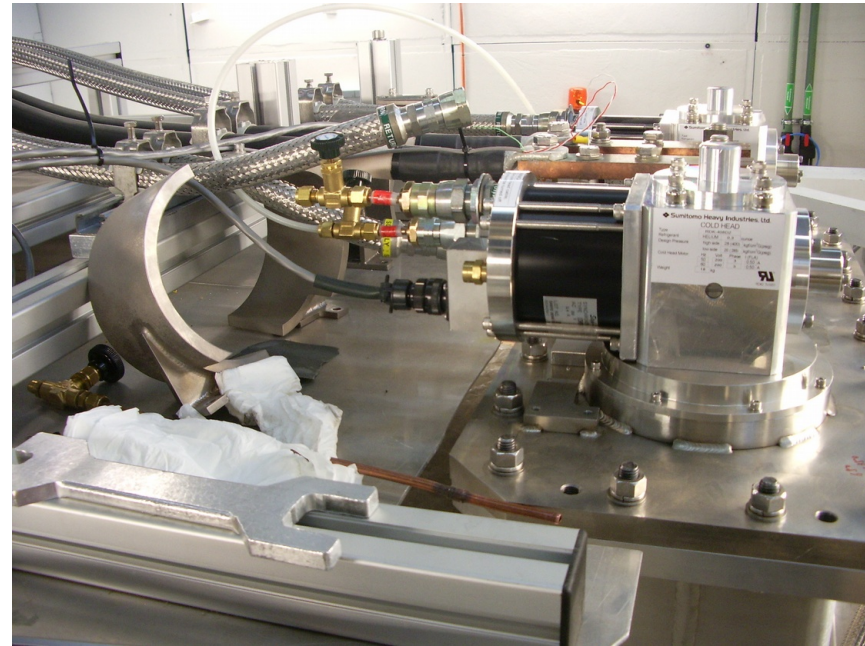
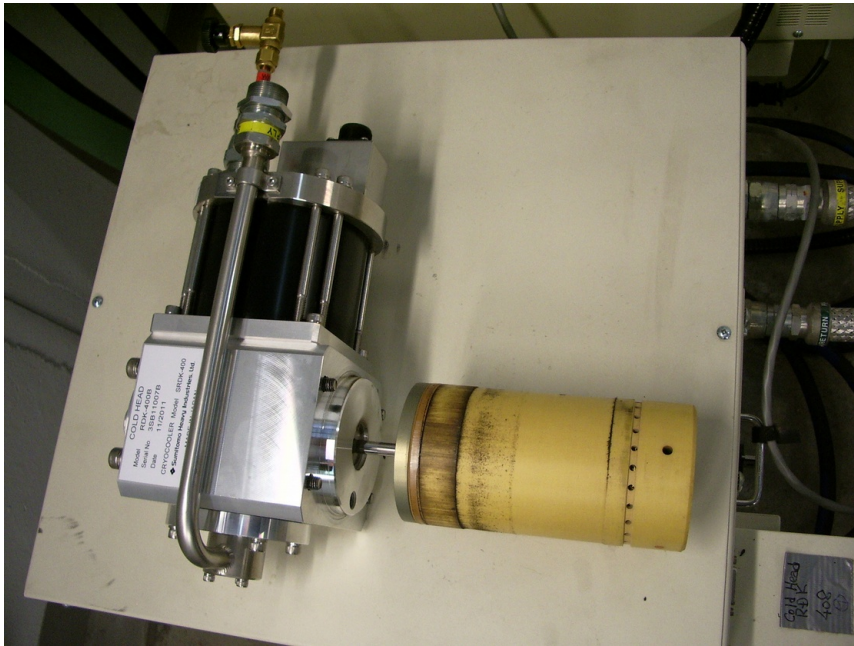
Testbeam & Setup @ T24/1

LCTPC Collaboration Meeting – 30.06.2014
R. Diener, Ole Bach, Bernd Beyer, Volker Prahl

- Support structure for LP and DUTs is being modified
- More mechanical stability
- More alignment precision
- Angular brackets at back
- A new ring is being produced for the front side
- This ring is mounted not on the aluminum plates that hold the magnet but only at top and bottom directly on the more precise end ring of the PCMAG
- Install position measurement system for LP/DUT inside magnet
 - Integration in DOOCS

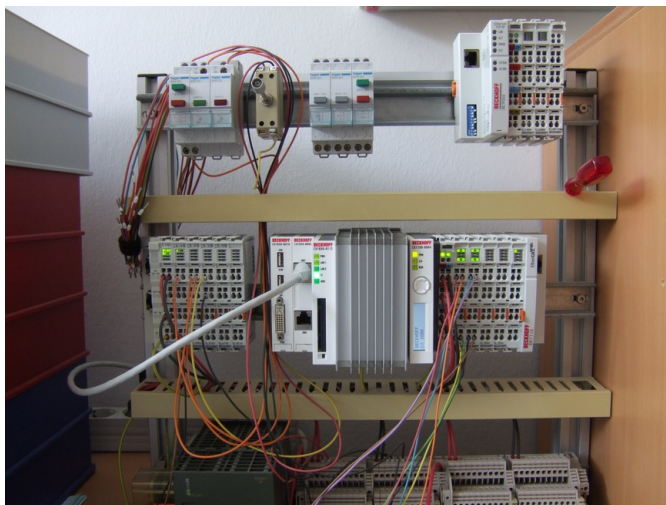


- Cryo cooler maintenance



- Hall probes inside magnet and connection to DOOCS
- Filter for cooling water? (some dirt found)
- Planned:
 - Integrate Helium compressor status in magnet interlock (and DOOCS?)
 - Measurement with hall probe for conversion current \leftrightarrow B-field

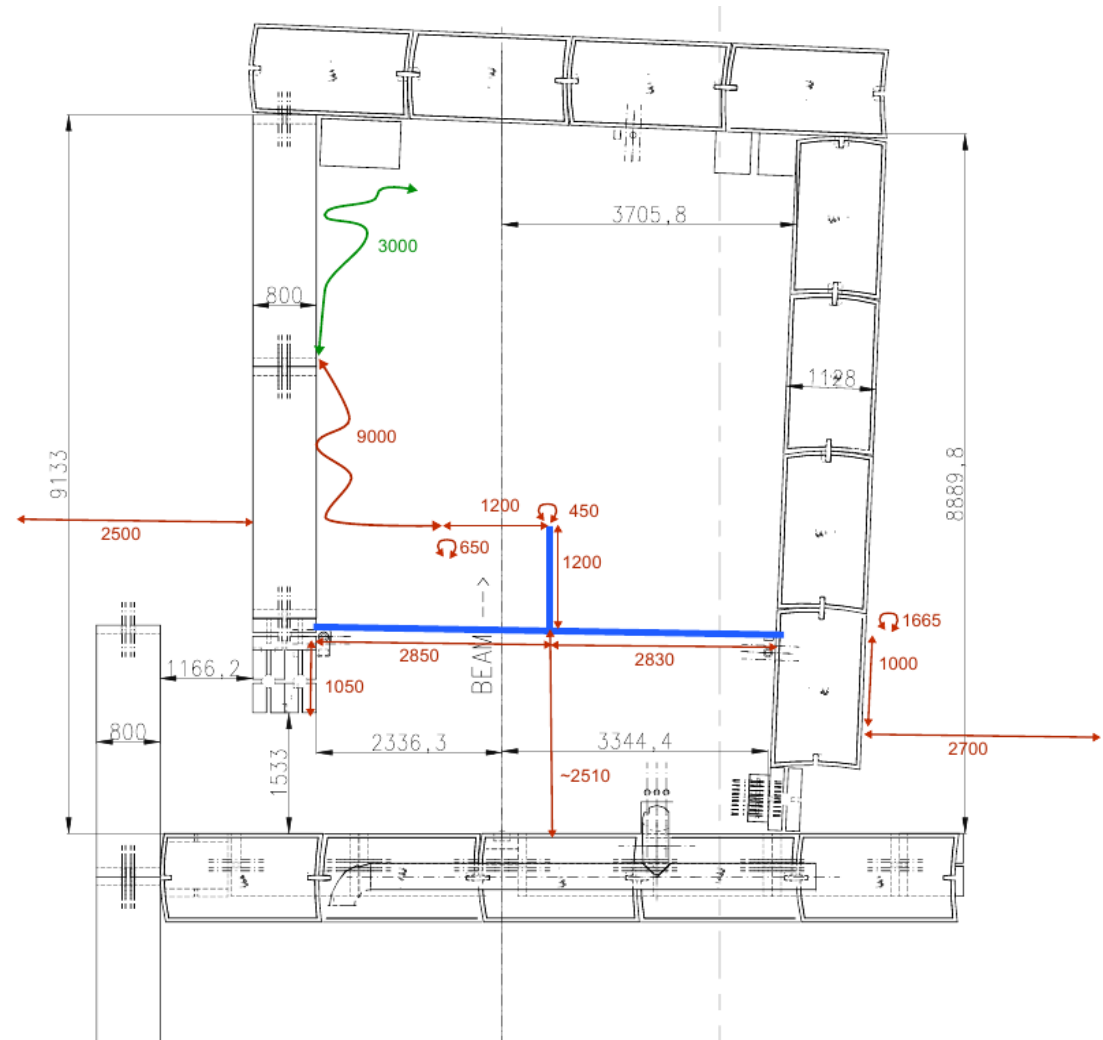
- Repair of end switches and improvement
- Move steering program from external computer to integrated SPS



- Some delays due to switch from WinXP to Win7-64: not fully compatible
- Full inclusion of end switches in safety system
- Inclusion of warning lamps etc. in steering
- Include stage position in DOOCS
- Disentangle slow control and stage computers (additional computer and screens)
- Replace Water and/or Oxygen detectors (CF4 problem)?

- Current installation not safe and does not give enough freedom of movement
- Constraint: volume of piping limited; longer pipes, less cooling power
- Ideas being discussed
- Test in lab what is possible?

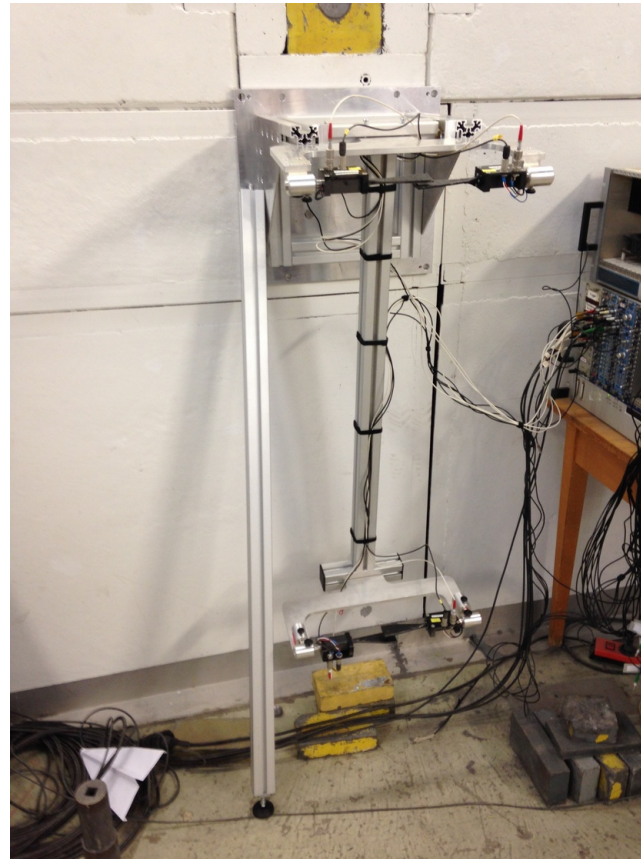
Position TRACI	Additional Volume [%]
Current	0
T24/1 with boom	17
In T24	38
Behind Hut	51
Magnet Test Area	72



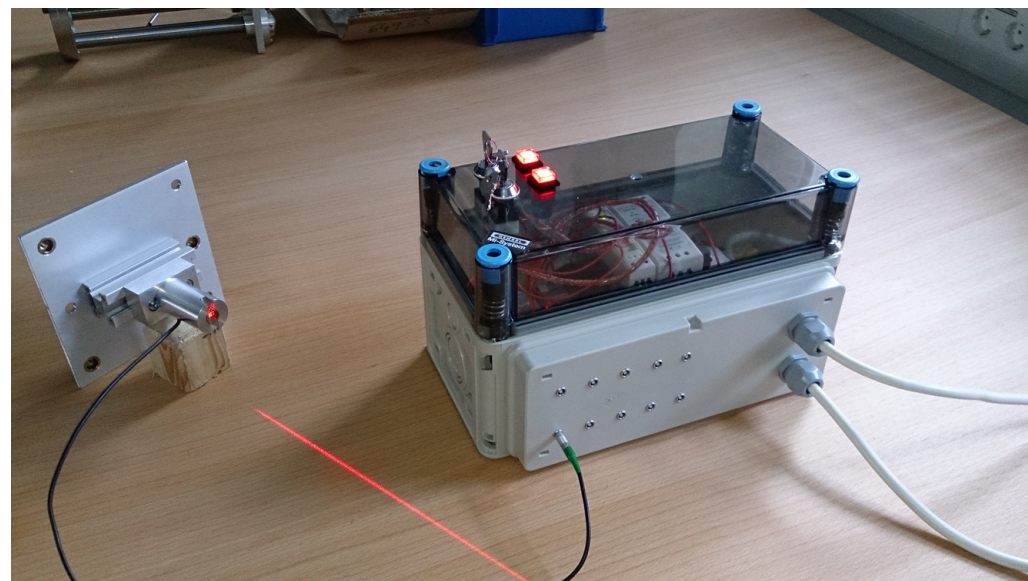
- All testbeam areas get a new floor coating
- Improvement for T24/1:
 - More even floor without “bumps”
 - Reproducible positioning of LP mounting cart possible
 - Easier alignment to rails of support structure
 - Better alignment of module mounting tool to endplate
- Schedule
 - T24 and T24/1
 - Area dust covers 2./3. July
 - Floor coating starts 3./4. July
 - T21 and T22 a few weeks later



- New holding structure for beam trigger
 - Fixed mounting → keeping alignment
 - Retractable during setup/maintenance work



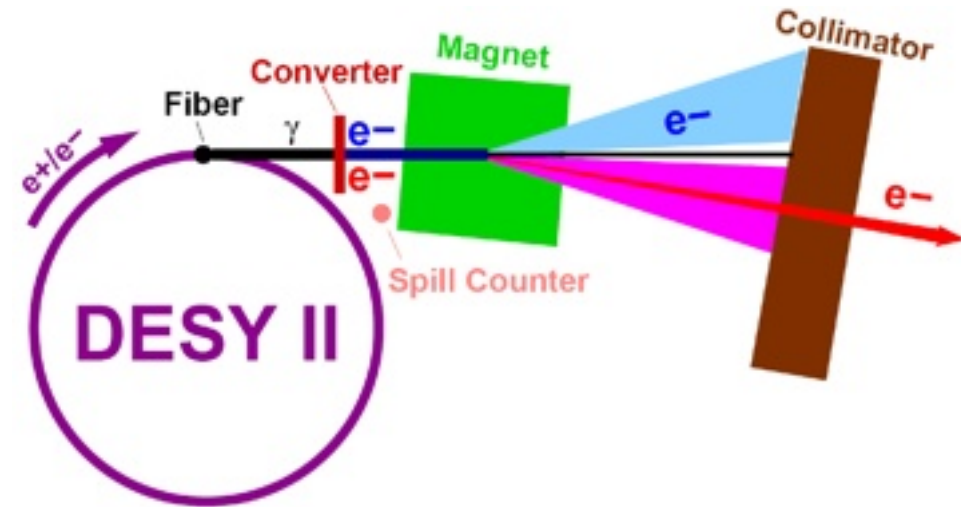
- Laser alignment system in all testbeam areas to show beam position
- Laser line in horizontal and vertical direction from beam direction
- Other horizontal/vertical laser lines as needed (for T24/1 one more horizontal from open magnet side)
- Activation by key switch (horiz./vert. independent)
- Prototype for one laser line and steering/powering box ready
- Other pieces being produced including laser warning signs



- Access will be switched to DESY DACHS system
 - Everybody needs to register BEFORE arriving and gets a personalized card
 - Card only works with current safety lecture
 - Access to huts and key boxes only with DACHS card
 - DACHS & Interlock/Beam:
 - One additional area search switch that works with DACHS terminal?
 - Shutter-open with DACHS terminal?
 - ...?
 - Complete Interlock setting/access (2016/17?)
 - NO temporary access by bridging interlock
 - Extra interlock bridging system for PCMAG (decoupled from beam interlock)
 - Reminder: persons without interlock key in area when interlock is set (i.e. more than two): direct confiscation of interlock keys



- New beam targets
- Better shielding at beam production
- Improvement of converters
- Replace old spill counters
- New vacuum pumps
- New beam counters in areas
- New telephones
- More power and Ethernet plugs
- Temperature and humidity sensors in the areas
- Cameras in all areas
- General clean-up





- Follow safety rules
- No WinXP PCs anymore → IT safety rule
- Closing caps for optical fiber lines → laser safety rule
- Enter all participants in Indico, use log book
- We are not alone in this area:
 - Bring/use proper boxes for leaving equipment on site
 - State scientific goal and proper description of testbeam in application
 - If schedule is tight:
 - NO HARDWARE TESTS THAT COULD BE DONE WITHOUT BEAM
 - Prioritization based on experiment and scientific goal but in doubt also on:
 - Past use of beam time
 - Publication lists
 - ...



- Acknowledgements of DESY testbeam on slides/proceedings/publications expected
- AIDA acknowledgement/logo on slides/proceedings/publications
- Publication/presentation/thesis lists for testbeam coordinators and AIDA