

## Project Goals for VLDT Node Heidelberg

The work of the electronics system development facility will be supported by Alliance funds through the provision of additional person power, and funds to upgrade the facilities. It is planned to add seven full time staff members, four at Bonn and two at Heidelberg and one at DESY, who will provide support for Alliance members. In order to make this a sustainable effort these positions need to be permanent, and continue beyond the anticipated duration of the Alliance. At the moment university positions are reserved at the different locations to offer tenure to most of the new staff. At Bonn four completely equipped work places will be made available to member of the Alliance, together with investments for necessary software tools and laboratory equipment. At Heidelberg places for three users will be installed together with a full suite of software tools to support up to six additional users and additional laboratory equipment.

### „Facility Upgrade“, specifically :

- 2 full time staff members to be hired through HGF funds
- 3 user workplaces for chip design / simulation
- Software suite to support 6 additional users
- Purchase and installation of laboratory equipment

## Status VLDT Node Heidelberg (1)

**Positions not filled** so far due to large gap between salaries of universities and industry / research centers.

Typical salary difference : Industry : 100%, Research Centers (GSI, DESY, PSI) : 20% - 50%

Positions advertised again together with other HGF Alliance job offers

**Important :** This does not impede the capability of the Heidelberg lab to host visitors  
2 engineers are available for support

**So far :** One external HGF user from Karlsruhe, joint R&D project with Vienna for tracking detector test structures. Legal (licensing issues) and technical problems to host external users are solved.

---

**Work places :** 3 + 6 places are fully available according to proposal  
Possibility to host both : Local visitors and / or network users

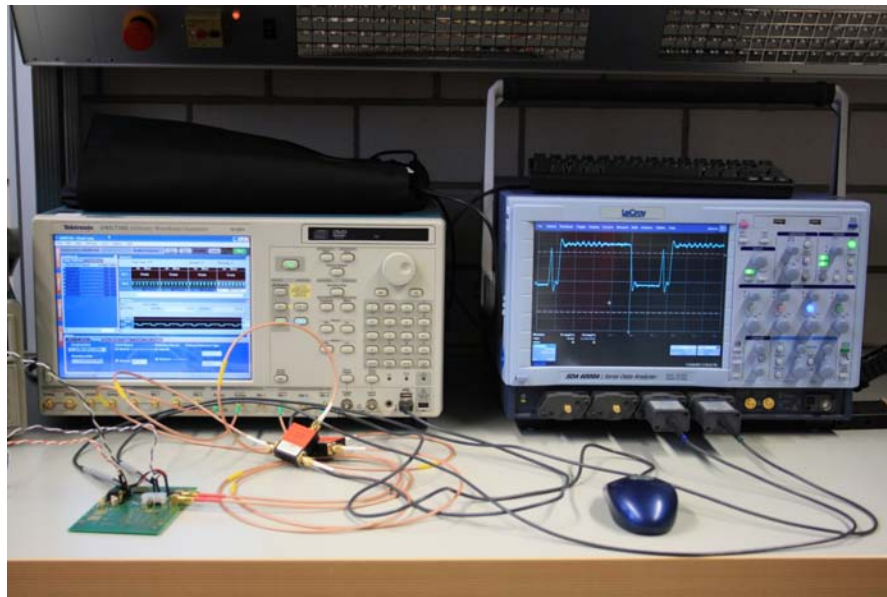
**More requests are very welcome !**

## Status VLDT Node Heidelberg (2)

Laboratory Infrastructure Upgrade :

Several acquisitions with relevance for HGF R&D projects have been made.

Major investment of particular importance :



Unique instrumentation at HEP labs  
(certainly in Germany) :

Very high speed Pattern Generator (20  
Gsamples“) and very fast oscilloscope (13  
GHz analogue bandwidth)

**Prime LHC application : High speed serial  
link development (trigger, trackers)**



Dedicated lab space for HGF users under construction.  
Expected to be available early december : Cleanroom facility,  
faraday cage, chip / wafer / substrate handling and testing

**External HGF users are very welcome !**