

## NA description

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<b>NA labelling</b>	This field will be filled by the FP7-I3 coordinator
<b>NA title</b>	Photon Detectors Network
<b>Reference “June 30 JRA(s)”</b>	
<b>Participating facilities</b>	All European Synchrotrons and VUV/XFELs, European laboratories and universities specialized on Detector developments (RAL, CPPM-Marseille, MPI-HLL, ...)

### Objectives

- Co-ordination of photon detector development at light sources, so as to optimize the limited resources, and to avoid duplication of efforts.
- Establishment of a European roadmap for photon detector developments.
- Establishment of common standards and interfaces (including DAQ systems), so as to facilitate exchange of equipment.
- Creating a platform for information exchange between photon sources in the field of X-ray detectors and detector related matters.
- Fostering existing and creating new links with other fields of science active in detector developments, in particular the HEP community.
- Ensuring a strong link between detector developments for FELs and SRs.

### Description of work (possibly broken down into tasks), and role of participants

*Approximately 1 page*

A consortium of detector developers from various European SRs has met twice per year for the last 2.5 years (DESY, DIAMOND, ESRF, ALBA, SOLEIL, ELETTRA). During these, rather informal, meetings an extremely valuable exchange of information took place and a number of collaborations have been originated. Amongst others, the proposals for various JRA's. Also a number of common problems and desires have been identified. It is however clear that many, if not most, of the objectives can only be achieved by a larger and official Networking Activity. Our informal consortium of detector developers is therefore to be seen as a precursor for this Detector Network

- The network will have 6-monthly meetings, where information is exchanged about general detector matters, also activities not specifically covered in any of the Work-Packages. Detailed reporting and monitoring of the progress of the (eventual) JRAs. Reporting of other collaborative or non collaborative developments. (can we list some here already?)
- Beside these regular meetings, the network will organize topical workshops, with the goal to achieve consensus on detector related matters (for instance Data Acquisition standards for both soft and hardware, Calibration and testing standards, new developments to pursue, etc.). Can we already decide now what the three (or more/less) topical workshops are and when?

- The network should also provide a mechanism, and financial means for exchange of staff between facilities. This can be for shorter (days) or longer (months) periods. We see this exchange as one of the most effective means of collaboration and way to share information. **(this should go more to the front, since the EU finds this good and important).**

The Network will also create a web-site and wiki pages, with general information, and links to detector pages at the various facilities. This web-page will be a central tool of the network.

Besides these general tasks there are number of tasks organized in work-packages (at the moment random order)

WP-1: Creation of a data base of detector development projects, goals and status, throughout Europe and the world.

WP-2: Creation of a road map for future detector developments.

WP-3: Development, together with software developers and electronic experts, of common standards for Data Acquisition (both hard and software).

WP-4: Creation of a database (depository system) of results (publications, internal reports, short notes,...)

#### **Deliverables** (brief description and month of delivery)

- A Web site to centralize and disseminate information relevant to the fields covered by the Photon Detector Network: (M3 and throughout the project).
- Data base (repository) for results (also obtained outside the framework of the Network): M3, (and throughout the project).
- Inventory of ongoing projects: M6 (and throughout project)
- Road Map for photon detectors: M24
- Creation of common interface and DAQ standards: M12
- Workshop proceedings
- Creation of a European Platform for coordination of detector developments for photon sources: M36

#### **Budget**

- 1 person for 3 years for Web site, Data base, and general admin: 180 k€ **(or is ½ a person enough?)**
- 2 meetings per year; 2 participants per institute (20); 2x2x20x1000€ = 80 k€
- 3 topical workshops: 3 x 20 k€ = 60 k€
- Exchange of staff: 10 exchanges, 3 months each (average): 10x4k€=40k€