



**AIDA**<sup>2020</sup>

Advanced European Infrastructures  
for Detectors at Accelerators

# WP2 KoK meeting summary

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# AIDA<sup>2020</sup>

## KoK Meeting

- **WP2 KoK held on 03.06.2015**

Participants: CERN, OEAW, CNRS, DESY, KIT, UNILIV.

At the KoK meeting were present as well ALU-FR, INFN, UoB.

- The participants to KoK meeting and as well as all the others in the AIDA-2, that are interested into the activity of WP2 are kindly requested to register on the WP2 mailing list.



- **Objectives**

- **Coordination, monitoring and organisation of the activities in WP2**
- **Planning and implementation of project communication, including reporting**
- **Identification of the key technology areas and liaise with industries,**
- **Setting-up and management of the Proof-of-Concept fund, including following-up of the funded projects**
- **Pre-industrialization of large area silicon detectors and business intelligence for assessment of needed industrial capabilities**

- **Tasks**

- **Task 2.1 Scientific coordination**
- **Task 2.2 Communication, dissemination and outreach**
- **Task 2.3 Industrial relations and technology transfer**
- **Task 2.4 Management of the Proof-of-Concept (PoC) fund**
- **Task 2.5 Pre-industrialisation of large area silicon detectors**



MSs are:

- *MS2.1 → Project Website launched [ M1 ] → reached*
- *MS2.2 → Project Communication Plan [ M2 ]*
- *MS2.3 → Network of TT established [ M3 ]*
- *MS2.4 → NDA and background declaration ready [M3]*
- *MS2.5 → criteria for PoC fund management [ M12 ]*
- *MS2.6 → identification of EU company interested in SiD production [ M18 ]*
- *MS2.7 → review and selection of projects eligible to be funded [ M20 ]*
- *MS2.8 → Academy meets industry event [ M24 ]*
- *MS2.9 → Progress review of PoC projects funded[ M34 ]*
- *MS2.10 → Academy meets industry event [ M36 ]*



- Deliverables are:
- D2.1 → identification of key technological areas for transfer to industry [ in M14 ]
- D2.2 → PoC Selection of projects eligible for funding [ M23 ]
- D2.3 → identification of companies for production capability and prototypes production [ M44 ]
- D2.4 → PoC final report [ M48 ]



### **Establish Network of TT --- MS2.3 in M3**

- The Network of Technology Transfer officers is composed by members from all the AIDA-2 WPs
- Each WPs coordinator (but TA) is required to propose a member (for SC approval). Next week a precise request will be submitted to WP coordinators.
- NTT mandate is: to support the central management of the IP, through background identification in the relative technical areas and foreground protection
- The NTT mandate includes as well the monitoring of technical innovations in WPs with a view to patent these, and the identification of transferable technology to industry and their communication to external TT networks
- The NTT will propose the potential projects suitable for funding via PoC.



### Identification of key technology (definition and indicators) ---- **D2.2 at M14.**

- The key technology in AIDA-2 must be defined in terms of:
- Novelty
- Impact
- Applications (possible, foreseen and/or envisaged) outside of HEP (transfer to industry)

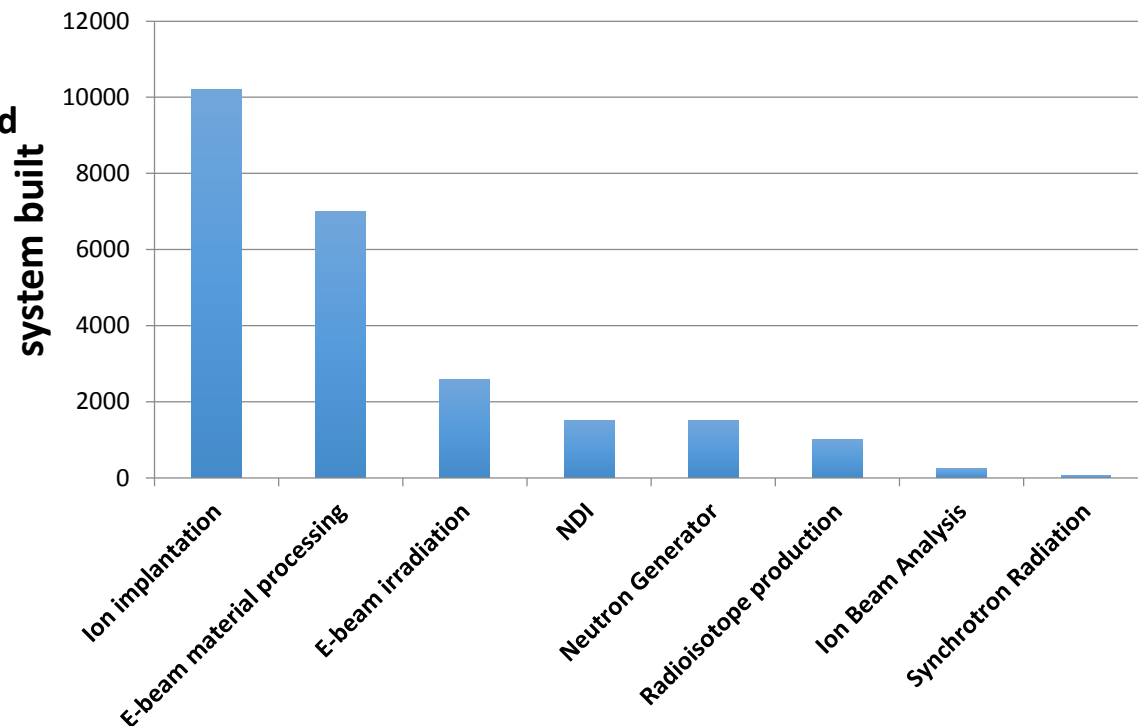
A roadmap to D2.2 will be proposed by WP2 coordinator in the coming weeks. The timely completion of this deliverable is necessary for the definition of criteria for selection & award of the PoC in M23.



- Identification of key technology (definition and indicators)

### Example: Impact of accelerators in Science, Industry and Society

- 70 companies involved ,
- 24000 accelerator in the world,
- more than 30000 if medical are included
- 1100 new systems deployed every year
- For about US\$ 2.2B of value
- For about US\$ 3.3B if medical is in.







### • Identification

Example: Imp

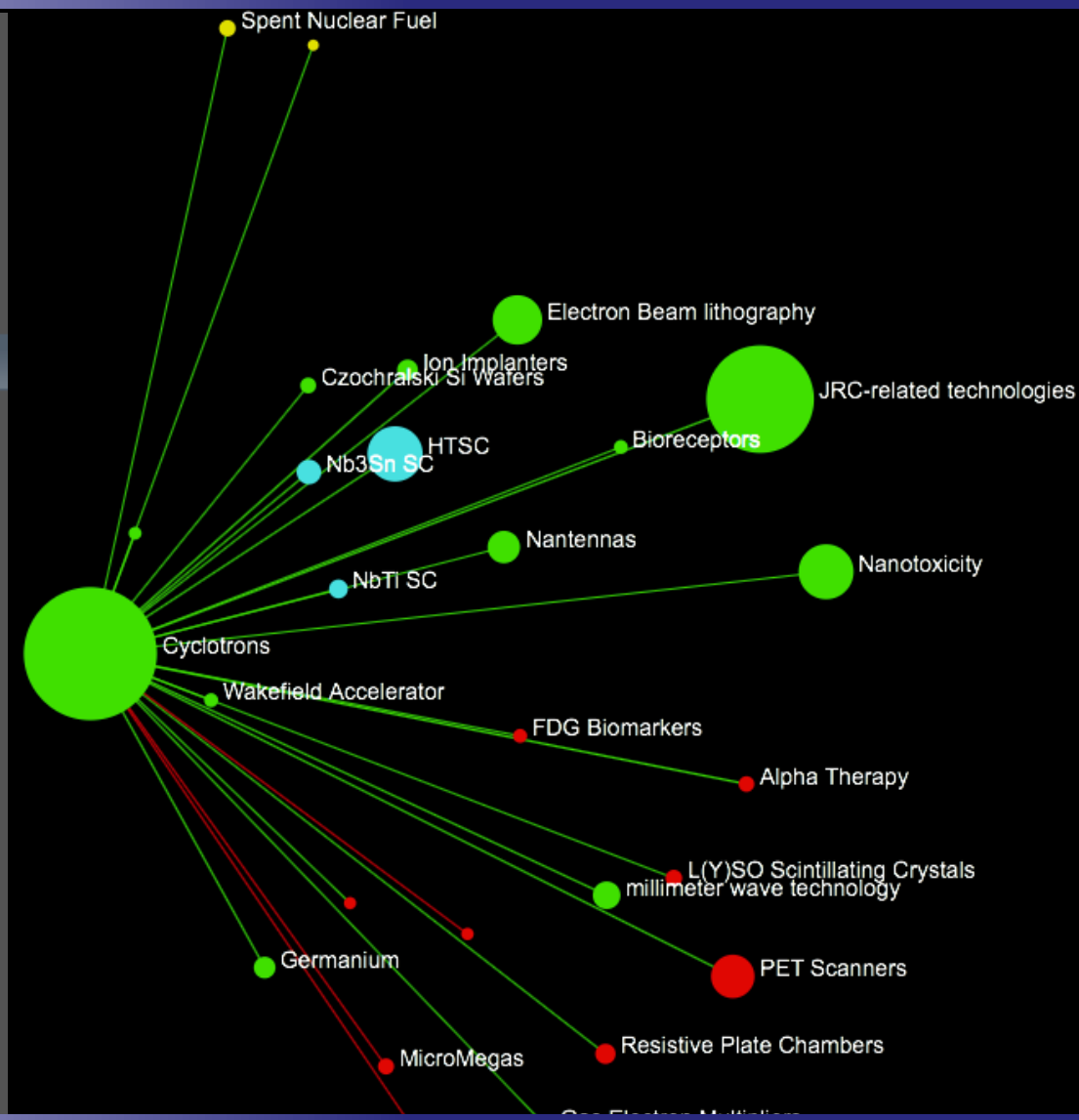
**Cyclotrons**

Organisations: 1769  
 Patents: 2259  
 Publications: 5283

[Hide History](#)

**Connections (26)**

- Alpha Therapy
- Bioreceptors
- Czochnalski Si Wafers
- E-beam Accelerator
- Electron Beam lithography
- FDG Biomarkers
- Gas Electron Multipliers
- Germanium
- HTSC
- Ion Implanters
- JRC-related technologies
- L(Y)SO Scintillating Crystals
- MicroMegas
- Micropattern Gas Detectors
- millimeter wave technology
- Monolithic Active Pixel Sensors
- Nanotoxicity



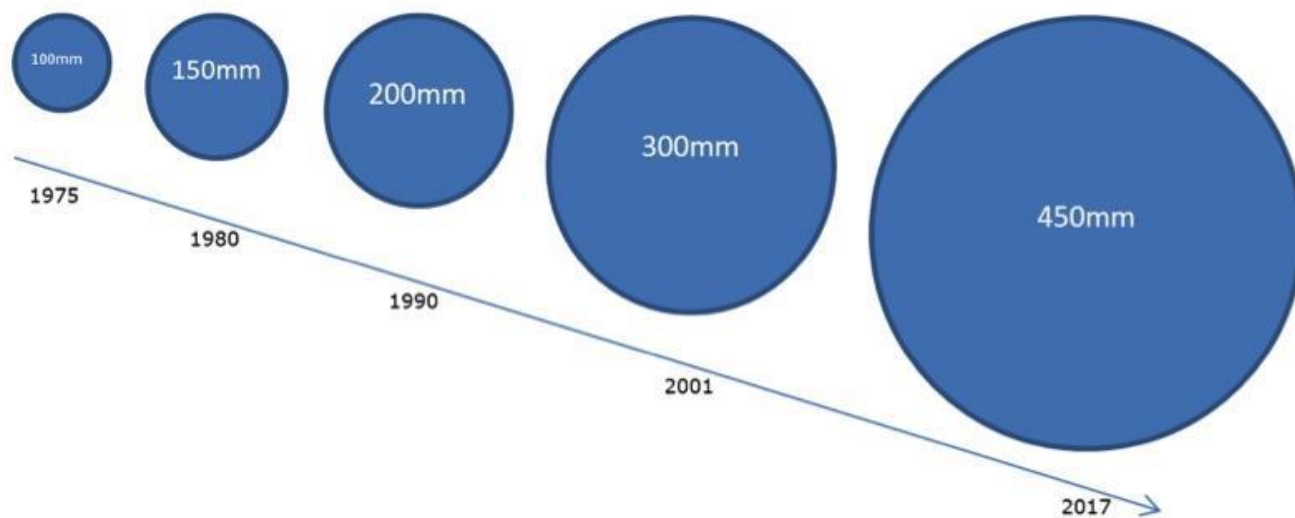


**PoC – we shall propose, for adoption to GB:**

- **Identification of projects potentially entitled for additional funding**
- **Selection & award criteria for the Proof – of – Concept fund**
- **Selection committee composition**
- **Management of the fund. The total amount of the fund is 120 KE.**
  
- ***The awarding of Proof – of – Concept fund to project is a deliverable at **M23*****
- ***The assessment of the funded project is a deliverable at **M48**.***



Identification of company for Pre-industrialization of SiD ---- **D2.3 at M44.**



Challenges are:

- The Si surface and the wafer size increase
- The industrial capability to meet the CMS and ATLAS need in the due time [ installation on new ST in CMS is foreseen in 2022-2024 ].
- The market monopoly situation



To address these challenges, the usual CERN model has been adopted:  
A single company, INFINEON (At), has been qualified by CERN for R&D that is successfully progressing since few years.

However this exclusive model has shortcomings:

- may not be enough (in terms of volume of production),
- could not completely mitigate the commercial risks (in a EU public procurement perspective),
- could not mitigate the technical risk (in a not really competitive environment, where quality is a mandatory requirements).

Splitting contracts would mitigate risks.



### Discussion in KoK has shown that:

- It is necessary to attract more industries into a potential business interest on SiD
- It is necessary to prepare a careful communication plan addressed to industries (within our mandate as organizing of 2 events “Academia meets industry”). The plan could include visits to/from companies, and participation to specific business events.
- It would be proper to coordinate actions with ATLAS & CMS in order to optimize effectiveness and efficacy. This is action proposed to AIDA-2 management.
- It is also suggested to discuss alternative ways to build the industrial capabilities (spin-off companies?).



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## conclusions

### Next steps:

Register your interest to be part of WP2 (mailing list), asap

WP coordinators (but TA) to send a proposal for WP TT, next few weeks

WP2 team to elaborate a plan for the management of PoC, to present to GB for approval, soon, according to a plan I will submit by 2 weeks.

**Be part of the AIDA-2020 community and help us tell the amazing work you do in AIDA-2020!**

- Join the communications working group
- Inform your institute communications
- Regularly propose stories, highlights, pictures, events..
- Help with the educational resources collection

**Contact us :**

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audience

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