

- Reminder of targeted call in H2020 (shown at Feb 17<sup>th</sup> meeting)
- Organization
- Status of Trans National Access
- Status of societal and industry impact activity + cryogenic detector NA

*Other possible NA/JRA activities to be discussed in next talk by Felix*

Link to the call (“excellent sciences”)

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-infraia-2014-2015.html>

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Deadline for proposal submission : 02 September 2014 @ 17h00

Total budget : 140 M€ (90 M€ in 2014, 50 M€ in 2015)

Work programme is divided into :

- Starting communities : 19 calls for proposal. New projects.  
Recommended budget up to 5 M€
- Advanced community : 22 calls for proposals  
Recommended budget up to 10 M€ (see later)

To fit within total budget, typical success rate will be about 50 %....

Starting communities :

- 1) European laboratory astrophysics
- 2) Research infrastructures for high energy astrophysics
- 3) Science at deep underground laboratories
- 4) Integrating gravitational waves search

In principle no direct competition between Starting and Advanced communities. Only possible interference might be with 2) if same Trans-National Access is offered for detector/calibration

*Physical Sciences - Advanced Communities*

**Detectors for future accelerators.** This activity aims at furthering the integration of, and access to, the key research infrastructures in Europe for the testing and development of advanced detector technologies.

→ It corresponds to the first sentence of the AIDA response to the IA-H2020 consultation on December 2012. Natural continuation of AIDA

**Research infrastructures for nuclear physics.** This activity aims at furthering the integration of, and access to, the key research infrastructures in Europe for studying the properties of exotic nuclei or of nuclear matter at extreme conditions.

→ Could be a continuation of ENSAR2 or HADRON PHYSICS3. Both seems to prepare a proposal. HP3-next might have similar WPs/Tasks to AIDA-2...

→ **Our main competitors...**

**European planetary science.** This activity aims at furthering the integration of the key research infrastructures in Europe for studying planetary science by drawing in new partners and by providing access to the facilities and to a larger number of users, taking into account the multi- and trans-disciplinary nature of the field.

An Integrating Activity shall combine, in a closely co-ordinated manner:

- (i) Networking activities, to foster a culture of co-operation between research infrastructures, scientific communities, industries and other stakeholders as appropriate, and to help developing a more efficient and attractive European Research Area;
- (ii) Trans-national access or virtual access activities, to support scientific communities in their access to the identified research infrastructures;
- (iii) Joint research activities, to improve, in quality and/or quantity, the integrated services provided at European level by the infrastructures.

### AIDA-2 guidelines for NA :

Deliverable of NA could be results of investigating new technology, advanced software package....

EC contribution should mostly be used for personnel, travels or organized access to Multi Project Wafer productions

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### AIDA Trans-National Activities :

Obvious facilities are beam test and irradiations but still investigate other facilities (see later)

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**AIDA Joint Research Activities :**

Deliverable should contribute to a improvement of an infrastructure and not Be “pure R&D”

Large fraction of EC contribution in materials, + personnel

We need to have both NA, TA, JRA

Integrating Activities in particular should contribute to fostering the potential for innovation, including social innovation of research infrastructures by reinforcing the partnership with industry, through e.g. transfer of knowledge and other dissemination activities, activities to promote the use of research infrastructures by industrial researchers, involvement of industrial associations in consortia or in advisory bodies. A specific work package on innovation is therefore recommended in all Integrating Activity proposals.

Work package on innovation **mandatory** in project.  
Will to invent such a WP to be useful for the community



(2) 'Advanced Communities' whose research infrastructures show an advanced degree of coordination and networking at present, in particular, through Integrating Activities awarded under previous Framework Programmes. The strongest impact for these communities will be expected typically to arise from focusing on innovation aspects and on widening trans-national and virtual access provision. Proposals from Communities that have benefitted from EU funding for Integrating Activities before will have to clearly demonstrate the added value and the progress beyond current achievements of a continuation project. The Commission considers that proposals requesting a contribution from the EU of up to EUR 10 million would allow this topic to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

AIDA-2 can not be only a continuation of AIDA but should ensure some continuity/support to some infrastructures created/upgraded in AIDA.  
Innovative technologies in NA, improve/provide infra in JRA + TA

Following further discussion with AIDA EC project officer, keep EC requested contribution at 10 M€

- Proposal submission by September 2<sup>nd</sup>
- Expert review done by end October 2014 followed by expert panel meeting for final ranking. Expert review will include scientific but also budget/finance aspects and consortium composition
- No official negotiation phase as in FP7 so do not expect -20 % reduction as EC will not try to maximize the numbers of funded projects.  
→ but might be unofficial negotiation from October to January if ranked in successful position for refined adjustments...)
- Most of the projects should be funded as proposed or minor reduction (< 10 %). Partner with small contribution/impact might be asked to be removed of the project (at least expert will have to judge relevance of beneficiary participation) → **Need to define a threshold for participation as beneficiary (50 k€ EC contribution) or use “third party as in AIDA”**

## **AIDA-2 coordination :**

### **Composition :**

Ties Benhke (AIDA deputy) (F. Sefkow when unavailable)  
Konrad Elsener (CERN/CLIC)  
Juan Fuster (ILC)  
Paolo Giacomelli (LHC/CMS)  
Chiara Meroni (LHC/ATLAS)  
Etam Noah Messomo (Neutrinos)  
Paul Soler (AIDA deputy)  
Laurent Serin (AIDA Scientific coordinator)  
Sveltomir Stavrev (AIDA administrative coordinator)  
Ivan Vila (AIDA governing board chair)

### **Goal :**

- Define AIDA-2 rules of participation
- Ensure that the communities are all represented with a fair balance
- Ensure a coherent and concrete proposal ready in time
- Help in solving difficulties between activities and/or partner

### Software

F. Gaede (DESY)  
W. Pokorski (CERN)

### Interconnection & microelectronics

C. De La Taille (CNRS)  
V. Re (INFN)

### Societal and Industry Impact :

G. Anelli (CERN)  
A. Szeberenyi (CERN)

### DAQ

D. Cussans (Bristol)  
M. Wing (UCL)

Most probably NA

### TA test beam

M Stanitzki (DESY)  
H. Wilkens (CERN)

### TA irradiations

M. Moll (CERN)  
M. Mikuz (JSI)

### TA

#### Detector facilities

I. Vila (Santander)

#### Facility upgrade TA

Coordination team

### Management

L. Serin (CNRS)  
S. Stavrev (CERN)

### Pixel + Si detectors

T. Bergauer (Vienna)  
C. Lacasta (Valencia)  
D. Dannheim (CERN)  
A. Macchiolo (MPI)

### Gaseous detectors

I. Laktineh (CNRS)  
S. Dalla Torre (INFN)

### Calorimeters

R. Poeschl (CNRS)  
F. Simon (MPI)

### Cryogenic detectors (v)

D. Autiero (CNRS)

Most probably NA + JRA

All previous activities not granted in AIDA-2.

Role of contact persons :

-Organize meetings with interested partners and propose concrete implementation in AIDA-2 -Task/Deliverable/commitments -(which might mean already not selecting some topics) with the following constraints :

- 1) Minimize activities with a single community/project associated
- 2) Minimize tasks with only one Institute or single country institute
- 3) Try to reduce to only needed the number of partners per task  
(better to have consortium / third party)
- 4) With a given indicative budget envelope and EC reimbursement ratios  
*(defined by coordination team taken into account scientific challenges of our major Projects, size of community behind and AIDA experience)*

→ Quite a challenging task !

Management	350 k€
Advanced Software	950 k€
Micro-Electronics	500 k€
Interconnection	500 k€
Industry/Innovation	150-300 k€
DESY TA	250 k€
CERN TA	300 k€
Irradiation facilities TA	650 k€
“Detector” TA	0-150 k€
Si/Pixel/Cooling	1600-2100 k€
Gaseous detectors	750 k€
Calorimeters	800 k€
Cryogenic detectors	300-500 k€
DAQ	300-500 k€
Facility upgrade	600 k€

**Total :**  
**Lower bound : 7850 k€**  
**Upper bound : 9150 k€**  
**Total AIDA-2 : 10000 k€**

AIDA-2 with 10 M€ EC contribution (+20 % / AIDA) and 25 % overhead (60 % in AIDA), suggest :

- 40 % for management
- 80 % for TA (to be refined when access cost)
- 40 % for JRA and technical TA
- Societal and industry impact : will depend on contents from 40-80 %

Beneficiary direct cost = personnel + materials + travel

Fraction = (EC contribution) / (1.25\*(beneficiary declared direct cost))

Exp of a NA or TA : 70 k€ (personnel) + 20 k€ (material) + 10 k€ (travel)

= 100 k€ → Recognized as  $100 * 1.25 = 125$  k€

→ EC contribution =  $125 * 0.4 = 50$  k€

- Decided this morning that both DESY and CERN will be TA for test beam in AIDA-2 grouped in one single TA :
  - To ensure same level as in AIDA (over 2 years of TB) , present budget would need to be a little increase at CERN ....
  - DESY : TB units /users quite similar as in AIDA will cover under the TA also the user support for EUDET/AIDA telescopes both at CERN and AIDA. Need also small budget increase
- Will have an Irradiation TA : not yet defined facilities but potential partner are
  - the present AIDA facilities : JSI , UCL, PS East Hall
  - GIF++ @ CERN, Birmingham , Legnaro

Want to identify amount of potential users/community in new facilities + potential administrative EU problem with KIT



- Still open discuss for a new TA with facilities for detector without traditional beam. Could be see as added value on TA / AIDA

Under investigation :

- 1) Ion Microbeam at RBI (Zagreb) for semiconductor sensors testing
  - 2) Electromagnetic Compatibility Facility for Electronics noise and grounding diagnostic
- Still need to better understand “access cost”
- Need to better identify enough potential users without AIDA-2  
Message with be sent soon by Ivan Vila with more details about these two facilities to get feedback from you about potential users.

Text to be provided by mid April (CERN leading institute + 1 or 2 institutes)

Task 1 : **Communication** strategy on next slides, need to propose something different than AIDA

Task 2 : **Industrial relation and technology transfer**

Collect information on technologies developed and investigate potential matches between needs and offers between industry and academia (this might go both ways!)

Organize academia-industry workshops

Disseminate information on new developments interesting for industry and establish links between the WPs and interested industry

Task 3 : **“Built in Proof of Concept”** :

- Y1 : investigate in each WP the R&D which are at the stage where industry might be interested (network of contacts in WP)
- Y2 : Select and finance a few projects (dedicated AIDA-2 selection committee )
- Y4 : Deliver prototype with industry

*(CERN KT funded since 2011, 18 projects with budget from 15 kCHF to 160 kCHF)*

D. Autiero appointed 1 week ago. Below first ideas exchanged with a few people.  
Meeting be held in next weeks

Focus around new neutrino infra at CERN at

Preference with NA instead of JRA (quite some Infra will be delivered in principle at CERN under WA10x)

Possible topics to be worked out by this WG:

- Purification and monitoring
- Charge readout and double-phase
- Light readout
- Very high voltage
- Magnetization

The NA will allow to develop the tools and the knowledge which will be then useful for everybody. This is an added value to WA105 that without AIDA II would focalize to itself.

Very large fraction of EU contribution for personnel

**NEXT TO FOLLOW WITH FELIX**