## **Co-Innovation with Industry**



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## **Objectives**

# Development of future accelerators requires technological breakthroughs with numbers of applications

Early participation of industry is important

- To keep industry informed of technological needs in the short, medium and possibly long term
- To enable the technical feasibility at reasonable costs
- To develop new industrial products,
  - addressing societal challenges
  - boosting European competitiveness
- To help sustainability of accelerator R&D by establishing a larger market



## **Co-Innovation with Industry**

#### **Objectives in ARIES and TIARA**

- Reflect on most effective way to develop co-innovation with industry in Europe
- Propose and establish new EC instruments to boost coinnovation

#### **Establish an Industry Advisory Board**

> To provide inputs on matter related to co-innovation



## **Future Plans within TIARA and ARIES**

- Short term(2017):
  Launch of the activities in WP14 of ARIES
- cf talks by Marcello Losasso

Medium term (2018-2020): Enhancing co-innovation with industry

Preparing a Co-Innovation Pilot Action with the EC for WP2018-2020 in H2020

Long term (FP9, >2020): Enhancing further Accelerator R&D

Preparing a large Pilot Action with the EC for FP9, which could <sub>4</sub> integrate all types of accelerator R&D activities

Medium term (2018-2020): Enhancing co-innovation with industry

A targeted approach (under discussion with EC) would include co-innovation projects with industry for medium and high TRL topics (e.g. projects such as in WP14 of ARIES)

Objective: Amplify by an order of magnitude what exist in ARIES (WP14)

The operational mode is still under discussion

i.e. would it include only **well defined projects** or projects would be selected within **internal calls (or both)?** What **level of TRL** should be addressed?

Under discussion, a workshop with industry in fall to discuss how to enhance co-innovation, i.e. what structure and tool are needed.

### **Future Plans within TIARA and ARIES**

Medium term: Enhancing co-innovation with industry (cont'd)

Co-Innovation Workshop (principle supported by TIARA) for getting organized and influence WP2018-2020

Sole Objective of the workshop:

« How to enhance co-innovation with industry », i.e. what tool should EC implement to achieve this objective in WP2018-2020

We discussed this with the EC and they are very interested, i.e. want to participate

If decided, should not come too late to influence WP2018-2020

i.e. fall 2017 or early 2018; 1 or 2 days?

Possible venue: Brussels, CERN, Paris?

**Comments are appreciated** 

Long term: Develop with the EC an ambitious instrument changing paradigm from "IA" to "Integrated Programme"

The "Programme" would cover many activities, allow large flexibility and ensure sustainability of AS&T

Specific projects that would be launched include:

- Establishment of Roadmaps and joint strategy
- Design studies
- R&D in accelerator science
- Development of state-of-the-art technical component
- Thematic Networking
- Upgrade or construction of R&D Infrastructures
- Preparatory Phase
- Education & Training
- Innovation actions with strong industrial involvment
- Specific actions addressing societal issues
- ...

During the Programme, projects should be launched at any time ("open call" mode)

#### Conclusion

Developing a strategy and establishing means to enable sustainable collaborative R&D in Accelerator Science and Technology in Europe is vital

- for fundamental science
- to address directly or indirectly societal and technological challenges

i.e. for accelerating Knowledge and Innovation

ARIES is an appropriate forum for participating to this endeavor as it integrate the vast majority of the European partners involved in Accelerator Science and technology

