

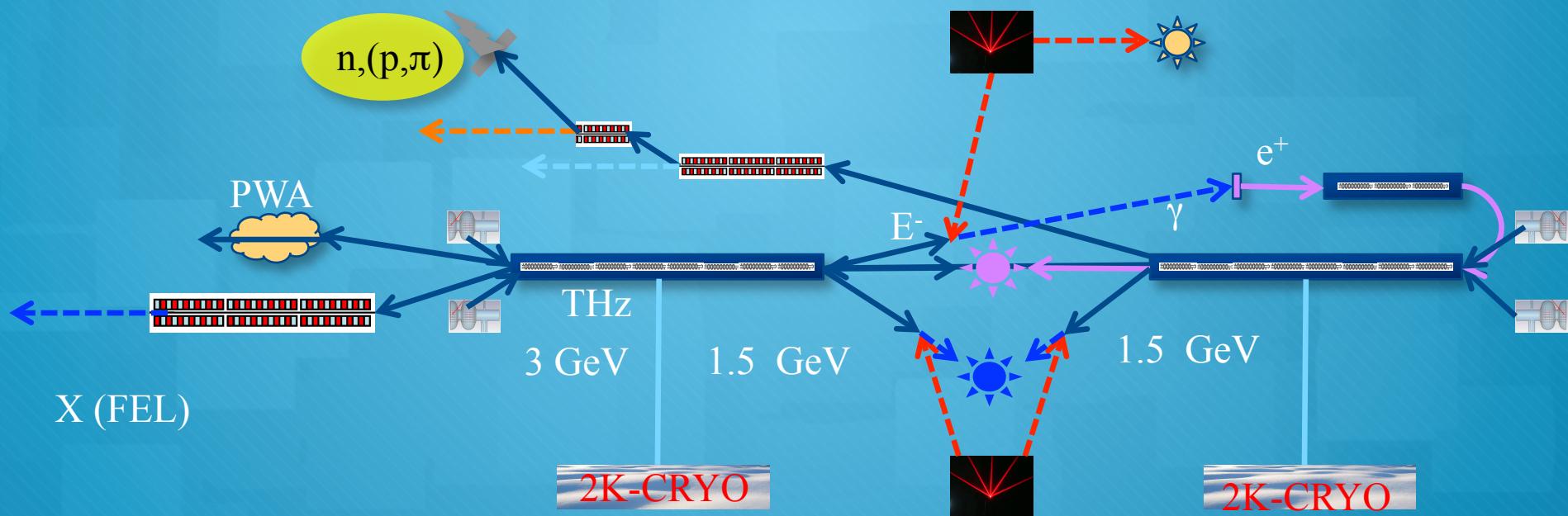


Virtual IRIDEn – a proposal

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I R I D E: una grande infrastruttura per la ricerca pura ed applicata:

- produzione di intensi fasci di particelle: elettroni, fotoni (dall'infrarosso ai raggi γ), **neutroni**, protoni, pioni e potenzialmente positroni e muoni
- a disposizione della comunita' nazionale e internazionale.



IL PROGETTO

- Guidato dall' Istituto Nazionale di Fisica Nucleare con la collaborazione di vari enti di ricerca tra cui ENEA e CNR
- Collocazione: area romana
- Costi:
 - 150MEuro: FEL 1.5GeV+THz+Neutron source
 - 150MEuro: FEL 3 GeV+Compton+ $\gamma\gamma/\gamma e$ collider
 - + infrastruttura

The context

- Realization of IRIDE implies a collaboration between INFN and ENEA + involvement of CNR+Universities+Industries in defining user specs
- Novelty aspects in Italy:
 - Technology
 - Interplay between INFN/ENEA/CNR
 - Interplay between INFN/ENEA and applied sciences
 - Relations with industry
- Funding of such enterprise is far from obvious
 - Future requests would be helped by an existing prototype

REQUIRES R&D

The idea

- **Make a inter-institute committee that:**
 - makes a **survey of existing italian facilities** to:
 - **Shares information with existing community**
 - **Facilitates access of external personnel to facilities**
 - **Divulges the existing resources and their possible applications in other fields of research and in the industry**

R&D of relationships

Known italian facilities

Existing

- TRIGA RC-1 (ENEA Casaccia)
- Tapiro (ENEA Casaccia)
- Frascati Neutron Generator (ENEA Frascati)
- TRIGA LENA (Univ. Pavia)
- NEPIR@SPES (INFN Legnaro)
- ...

Possible/Planned

- n@BTF (INFN Frascati)
- **BELINA & LENOS (INFN Legnaro)**
- ...



Brainstorming

- Steps:
 1. Agreement of INFN+ENEA+CNR and constitution of the committee (or rather a prototype)
 - Is this the right composition?
 - Technical and administrative resources needed in support
 2. Constitution of the “diffused facility”
 - Survey of existing resources and appropriate definition of the boundaries
 - e.g. extend to intense particle sources(γ from Co, n from AmB/AmBe/PuBe/..) ?
 - Facilities need to agree to participate to the project and set the conditions
 - Participation implies opening to external users on a regular basis
 - define administrative procedures and economical conditions
 3. Divulgation of the project and of the potentialities of the facilities