

# Table ronde “Future effort: focused or wide open?”

*Throughout the topics (computing model, ML, emerging technologies) a main question is whether we should **focus** our activities on a **few**, central **projects and topics** (WLCG, large astroparticle projects) and find solutions for those, or whether a **broader** approach should be taken. This is also connected to questions like whether we concentrate our effort to **build up and maintain expertise on the lab level**, or whether we push stronger for IN2P3-wide solutions, e.g. through stronger **reseaux** and participation in IN2P3-calcul&données **master projects**? Is creating **expertise-clusters** on specific topics in certain labs a way to go forward?*

Tried to form a panel that represents most communities:

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# Multiple dimensions, multiple fields

- ◆ HPC
- ◆ FPGA
- ◆ GPU
- ◆ AI/ML

- ◆ User of toolkits / libraries
- ◆ Designers / programmers
- ◆ Experts
- ◆ Solution provider

- ◆ Resources in lab
- ◆ Resources in local data center (univ, “cluster of labs”, mesocentre,...)
- ◆ National datacenters (CC-IN2P3, IDRIS, CINES,...)

## ◆ Who ?

### ◆ Large projects

- ◆ + well identified projects, manpower within project
- ◆ + visible impact in the field

### ◆ Intermediate and small projects

- ◆ + smallish additional manpower can make a noticeable impact
- ◆ - availability of manpower from the project?

### ◆ Individuals

- ◆ + “evangelisation of the masses” for the future
- ◆ + competitive advantage for analysis

## ◆ Human organisation

### ◆ Master project

### ◆ “competence center”

### ◆ Expert network, consulting

### ◆ Local experts

## ◆ Resource organisation

### ◆ National centers

### ◆ Regional/shared centers

### ◆ Local resources

# From the discussions here (my take)

## ◆ Computing models

- ◆ Driven by big project, need expert help for smaller projects and individuals to access the resources

## ◆ HPC / GPU / FPGA

- ◆ Need to build expertise for coding
- ◆ Need to support users to access and use the resources adequately
- ◆ Better / easier means to access the resources

## ◆ AI/ML

- ◆ Need for user (and expert) training
- ◆ Need of local expert / advanced users
- ◆ From local resources (“my GPU”) to production scale resources

## ◆ Ce matin

- ◆ “Il faudrait que les directeurs acceptent que l’on travaille sur des projets d’autres labos”
- ◆ Besoins de formations
- ◆



# My suggestion: hardware resources

## National resources

*Support users with no local resources*  
*For production scale usage*  
*User support more complicated*  
*Diversity of needs*

*Campus DC, mesocentres*

*Identify a few labs for specific technologies with regional or national resource center role?*

*Experience with electronics/mechanics competence clusters?*

*How to better access mesocentres?*

*Limited resources, for training, for small projects*  
*Difficult to maintain resource over time (“1 shot funding”)*

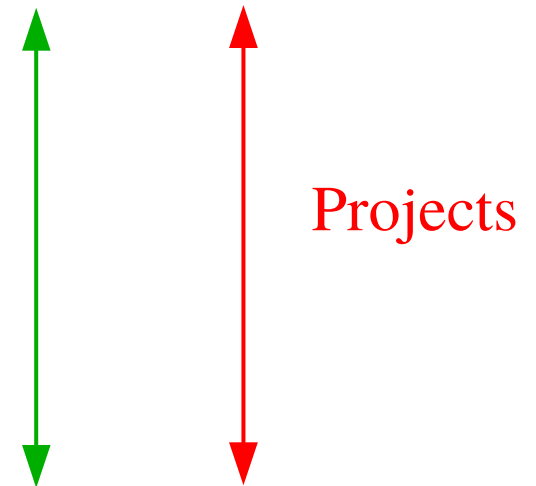
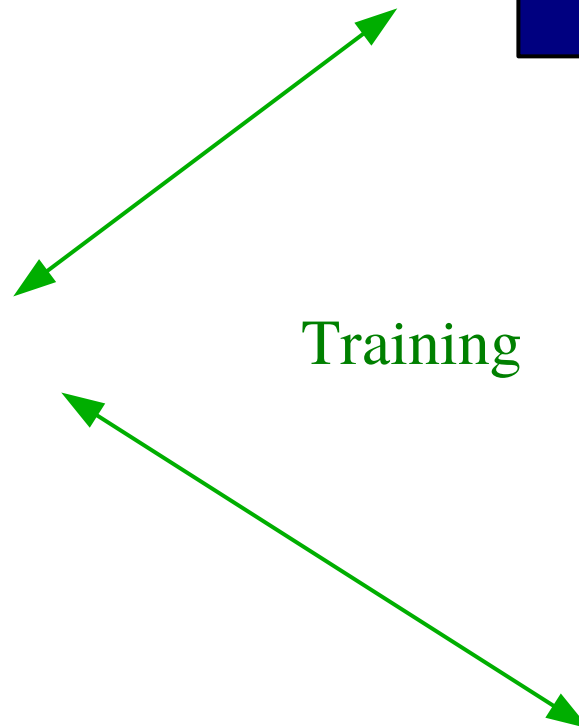
## Regional resources

## Lab resources

# My suggestion: human organisation

*Labs where we can concentrate enough expertise to make significant effort (recruiting) to IN2P3 projects  
Convince DU that “their” people for mostly for others?*

*Loose structure of people that can provide help, suggestions, reviews, training*



*Local IT and CH experts, training, first step, start new projects, point to experts  
Difficult to maintain resource over time (“1 shot funding”)*