



openNP : a gateway to EOSC

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GDR RESANET OS mini-workshop, 5-6th December 2022

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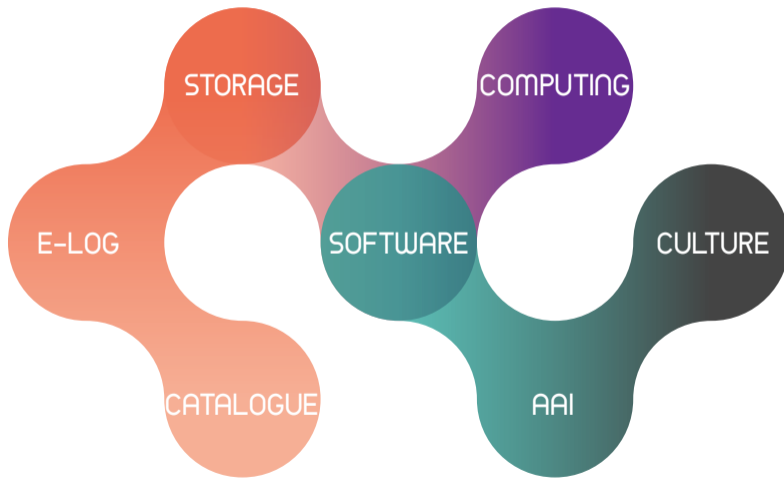


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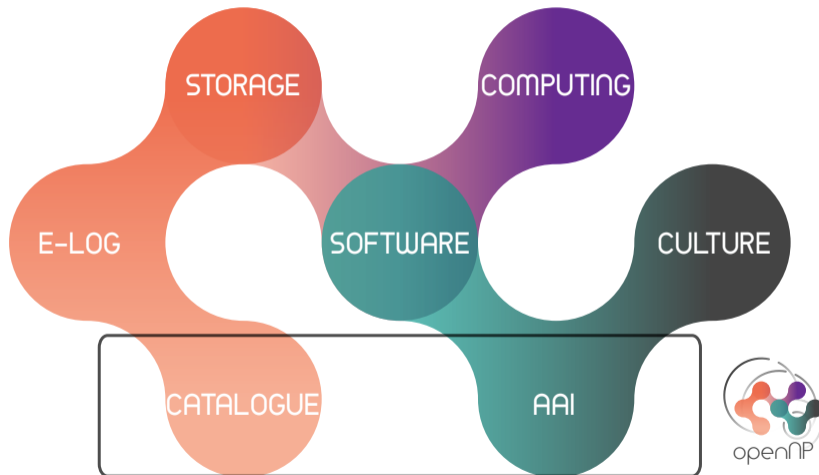


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Open science challenges for the nuclear structure community



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openNP : a novel initiative within EURO-LABS

Context: EURO-LABS

- European scale project: GANIL, LPC Caen, IJCLab, GSI/FAIR, INFN, Jyvaskyla, ...
- Organise and facilitate access to European facilities

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openNP: In a nutshell

- Open science initiative dedicated to nuclear physics
- Catalogue of data-set (experimental, simulated and theoretical), related information and tools
- EOSC-ready, for future integration

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openNP: Work packages

- 1 Open science desk (GANIL/LPC Caen): promote good practice: DMPs, source repo., ...
- 2 openNP catalogue (GANIL/LPC Caen): the product itself
- 3 AAI (IJCLab): Provide necessary infrastructure to access and manage the catalogue
- 4 Data Lake (GSI): Prototype data lake access
→ session tomorrow: Xavier Espinal (CERN), Speaker: Michel Jouvin (IJCLab), Andrew Mistry (GSI)

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- E Overview of existing apparatus: ion sources, accelerator, separator and detector

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openNP : feel the community

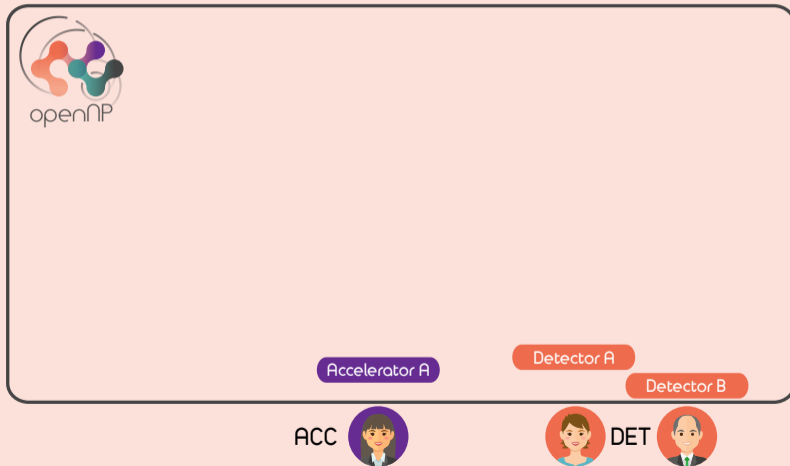
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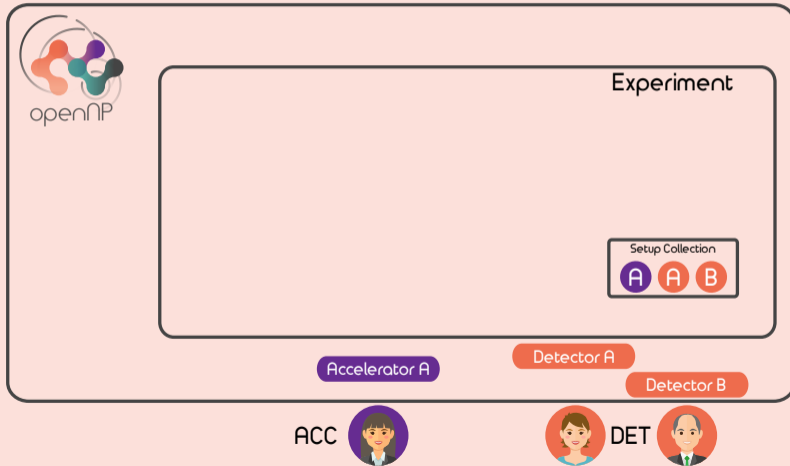
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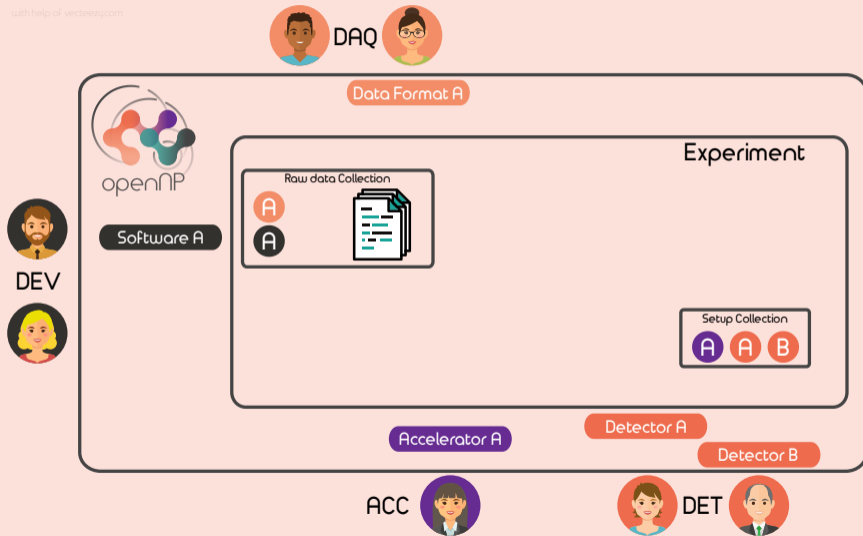
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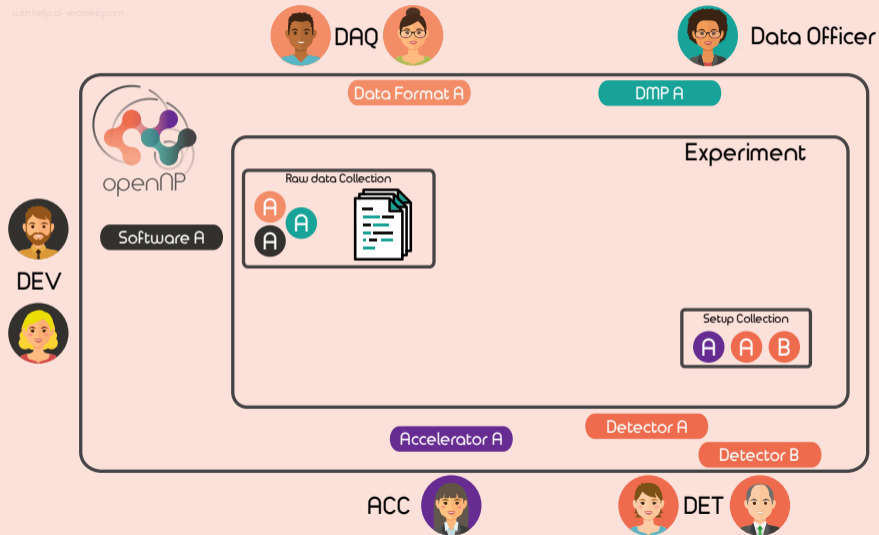
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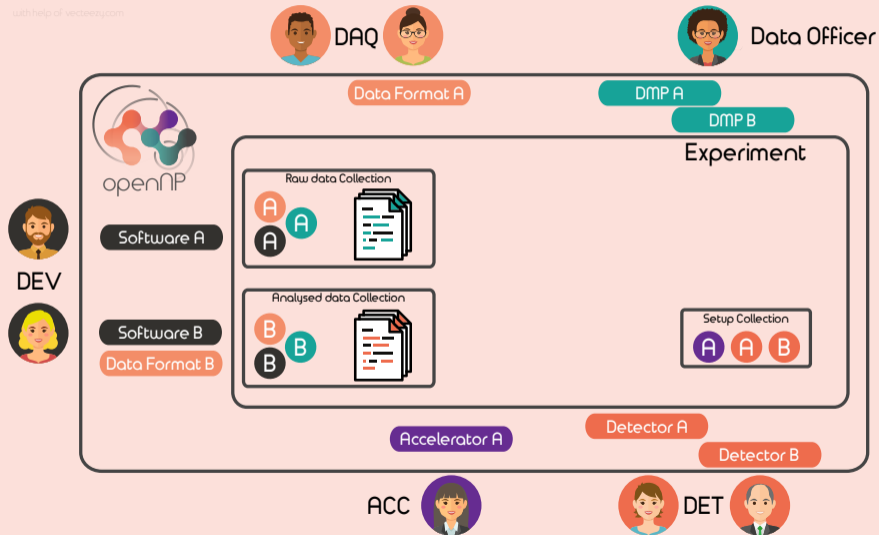
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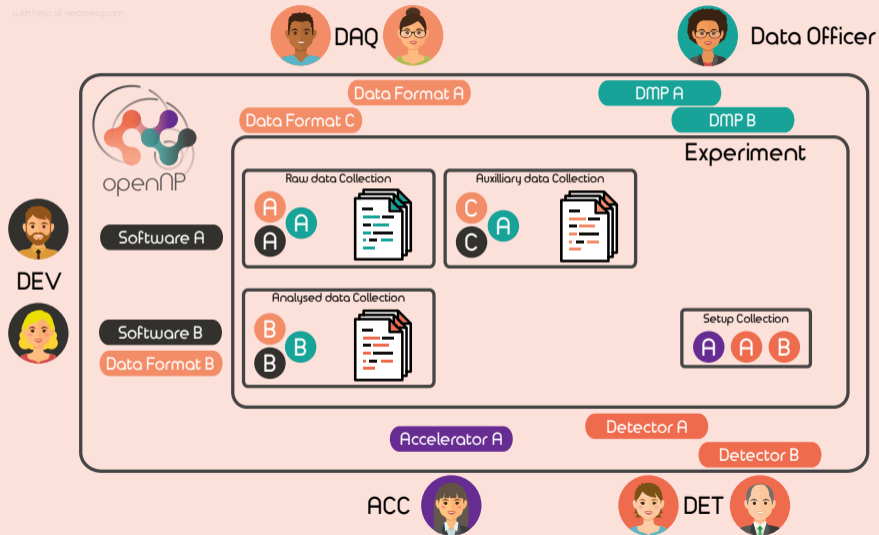
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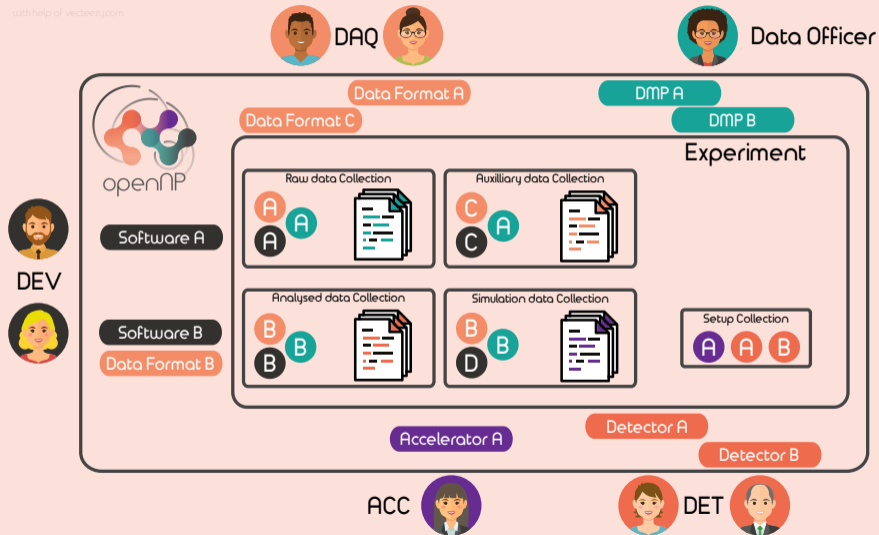
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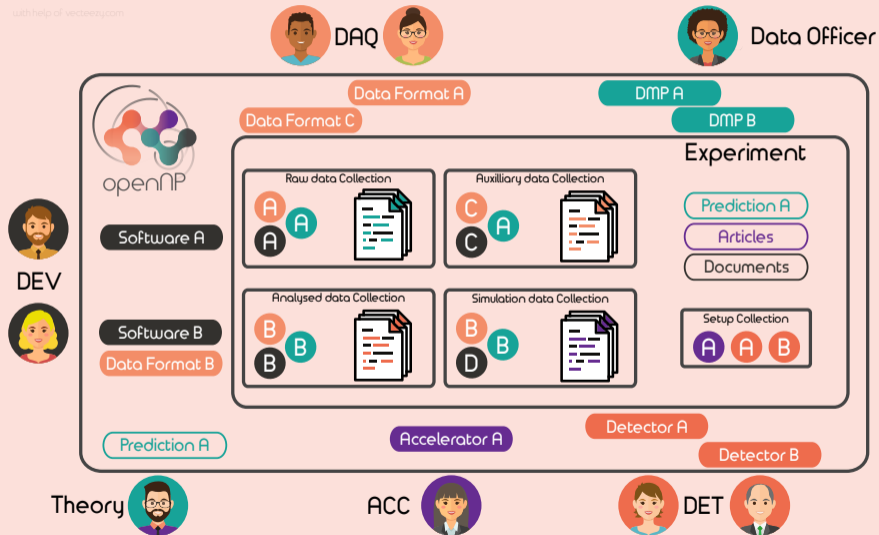
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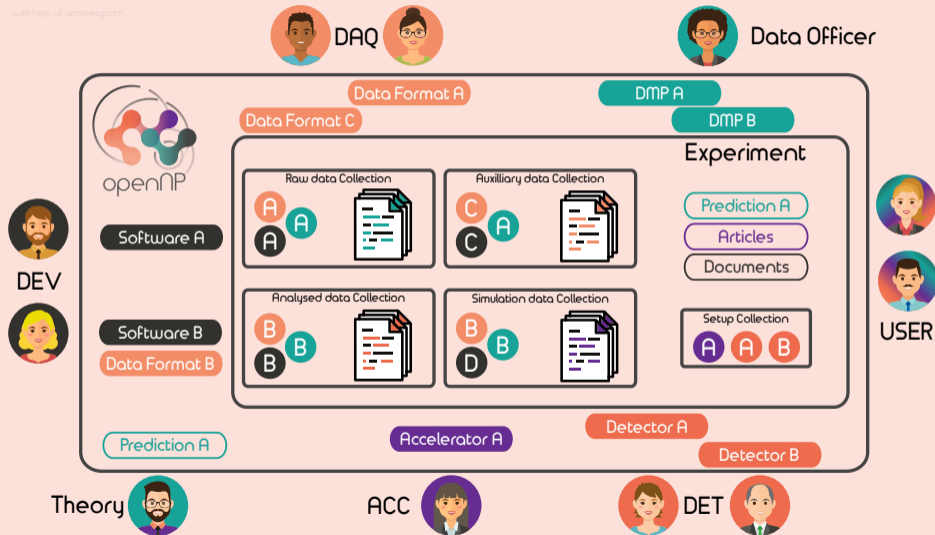
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- Does a dataset exist where ^{54}Ca was populated?
- Which facility provide the most intense ^{18}C beam?
- Was ^{10}He ever measured by missing mass?
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✓ Provide metric: increase visibility, facilitate evaluation

- 25% of publication on Coulex reaction used the AGATA array
- FASTER has been used in 54 exp. over the last 5 years
- VAMOS has been used in 16 different focal plane configurations

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A complete road-map

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- openNP synergy with datalake
 - Seamless integration to data lake
 - Rights and ownership management
 - Data curation

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 - Interface to shared computing platforms
 - Single entry point to data and tool



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 - Interface to shared computing platforms
 - Single entry point to data and tool
- Including Hardware design & theoretical work
 - ASIC, board, and associated Firmware development
 - Output of theoretical calculations & related software

