

# Noticeable achievements or progresses in Partitioning (Hydro & Pyro)?

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- **Existence of national/international research programs**
  - Roadmaps, milestones  $\Rightarrow$  **Partitioning scenarios**
- **Alternative partitioning processes**
  - *in Hydro*: chromatographic extraction, crystallization (not only based on solvent extraction)
  - *In Pyro*: interesting engineering studies
- **Better understanding of the chemistry of minor actinide separation both in Hydro & Pyro fields**
  - Use of performing analytical techniques

# What to do for further development in Partitioning (Hydro & Pyro)?

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- **In solvent extraction, same concepts investigated everywhere**
  - Amides, DGA, BT(B)P
- ⇒ **new ideas should be fostered**
- **Move faster from basic R&D to scientific feasibility**
  - To point out **possible technical dead-ends** and focus basic research programs on technical problems
- **Study the integration of the partitioning processes in some “reference” fuel cycle scenarios**

# Technical obstacle for further development in Partitioning (Hydro & Pyro)?

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- **Not enough dedicated facilities (“hot” laboratories) to carry out demonstrative experiments on genuine spent fuels**
- **Difficulties to assess the sturdiness of partitioning processes developed at the laboratory scale**
  - **How to extrapolate from lab-scale devices to industrial workshops?**
  - **How to extrapolate the long term performances of the process at the industrial scale?**

# Recommendations for further development in Partitioning (Hydro & Pyro)?

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- **Let the door open for scientific creativity**
  - Key to unlock closed doors and fill technological gaps
- **Simplify/optimize existing partitioning processes**
  - Address the challenges of what surrounds the core of partitioning processes
    - Waste minimization, links between P&T (conversion of minor actinides for fuel re-fabrication)
- **Go further towards the demonstrate the industrial feasibility of partitioning processes**
- **Foster education programs**
- **Collaborate at the international level**
  - **ACSEPT: an example of European collaboration**