Fuel cells and hydrogen
Joint undertaking

Tomorrow Starts from Today

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New Energy World JU
fuel cells & hydrogen for sustainability

- Main goal: assessment of the projects achievements in respect to input targets (AIP)
- Social impact
- Relationship to earlier/other projects
  - reached achievements – starting point for next project
  - synergy and common activities in harmonization of test protocols

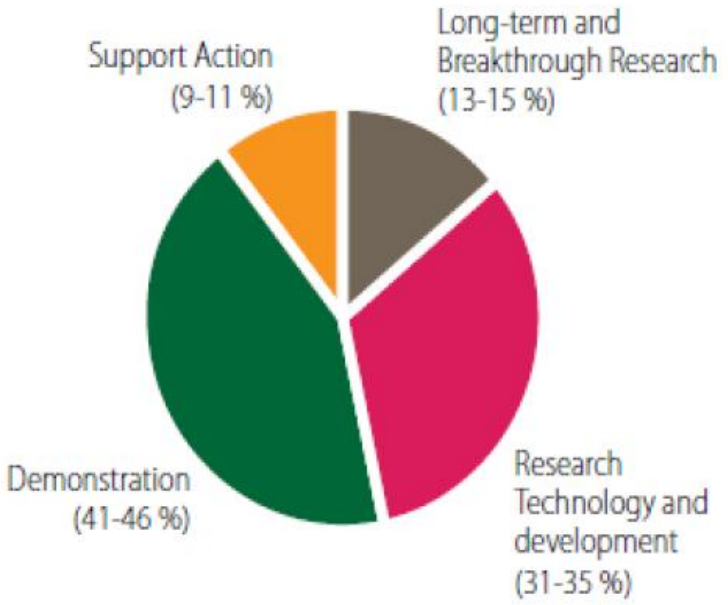
TIME to start thinking about "common language" on testing (accelerated tests!!!) and database (digital library))

- Analysis of bottlenecks
- Risk assessment & countermeasures
- Opinion for the program from projects (AIP, targets)
- Post project exploitation (attempts)

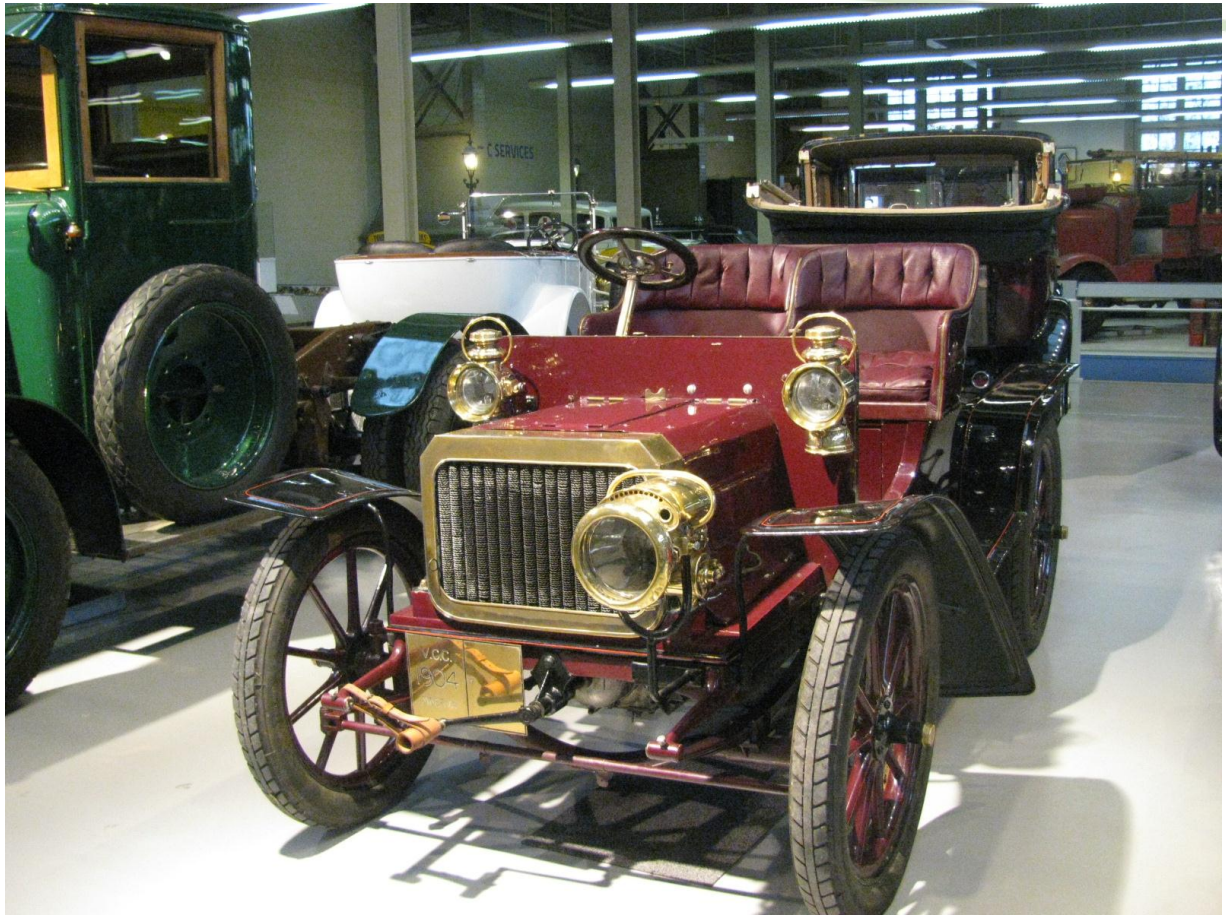
Research Balance

- Research Balance
  - Officially: 62 RTD projects;
    50% from the budget
  - Systems, components, materials ~ 80% research
  - Demo should give birth to research
  - Commercial products need research

Figure 2: Budget breakdown by activity type



Research Balance



Research Balance

Research Balance

Research Balance

“Research is needed in FCH”

“Research and Innovations are needed in FCH”

“Remain focused on research”

Robert Jan Smith – Director General of GD Research & Innovation, EC

Olivier Onide – Director for Innovations & Sustainable Mobility and Transport, DG Mobility and Transport, EC

Space for Research in FCH JU

- Research in FCH JU supports technological development (characterization, testing, diagnostic, modeling, synthesis, new techniques; new technologies etc.)
  - applied (targeted)
  - basic (underpinning)
  - breakthrough

Breakthrough research?

- Risk assessment & countermeasures

close pathway for

breakthrough research

Breakthrough research?

✓ Topic targets = industrial needs

✓ Targets correspond to different level of technological maturity

✓ Innovative approaches – longer time

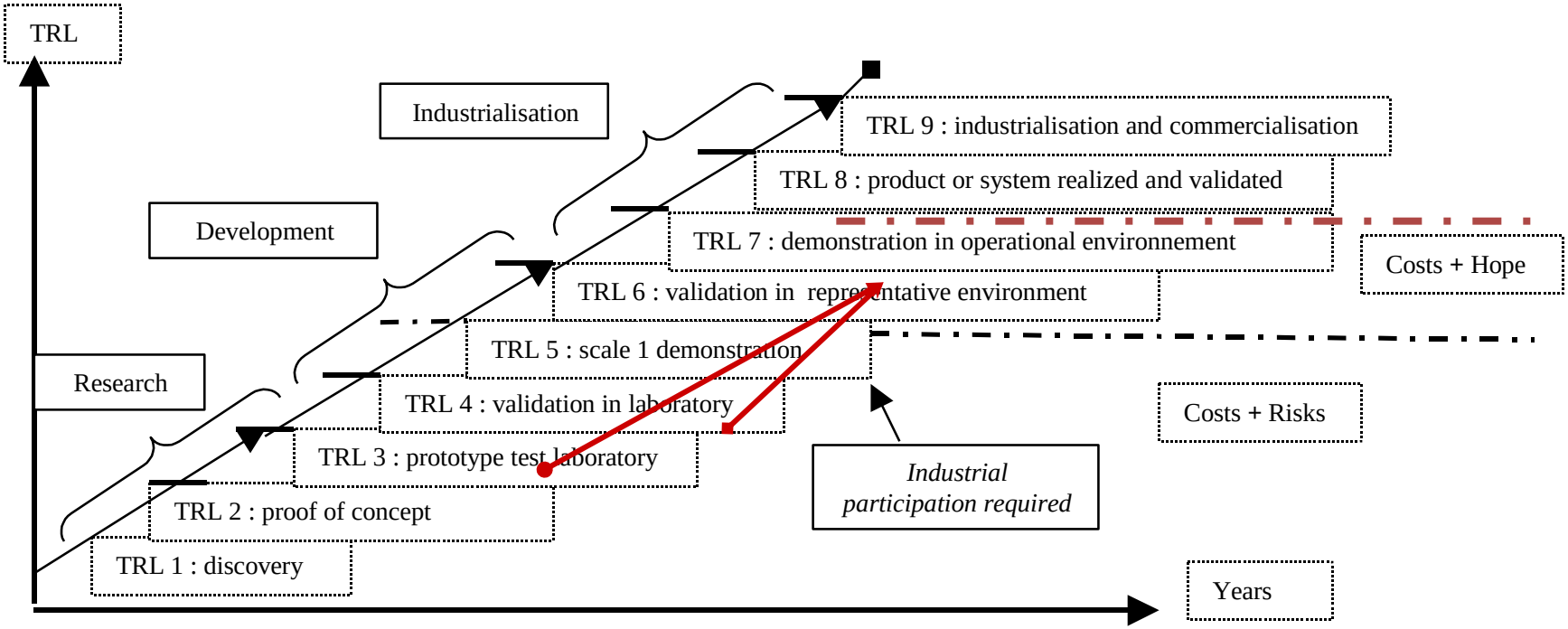
(*Example: new generation MEA*)

- MEA (including components) – high performance
  - with low Pt loading or
  - non Pt catalyst!! (breakthrough)
- high temperature
- scaling up
- durability tests

3 years

Breakthrough research?

- ✓ Definition for initial and final TRL of every target
- ✓ Self Assessment in the end of the project
- ✓ Feed back for research from higher level



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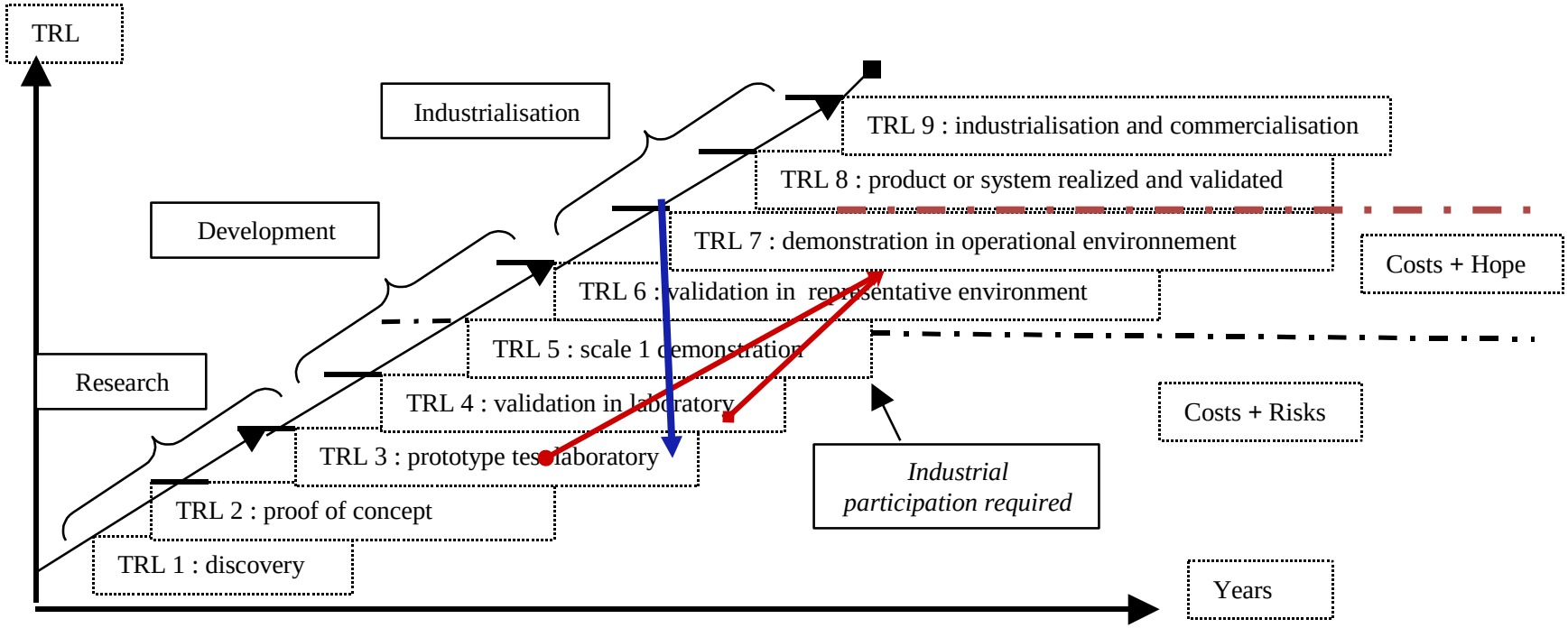
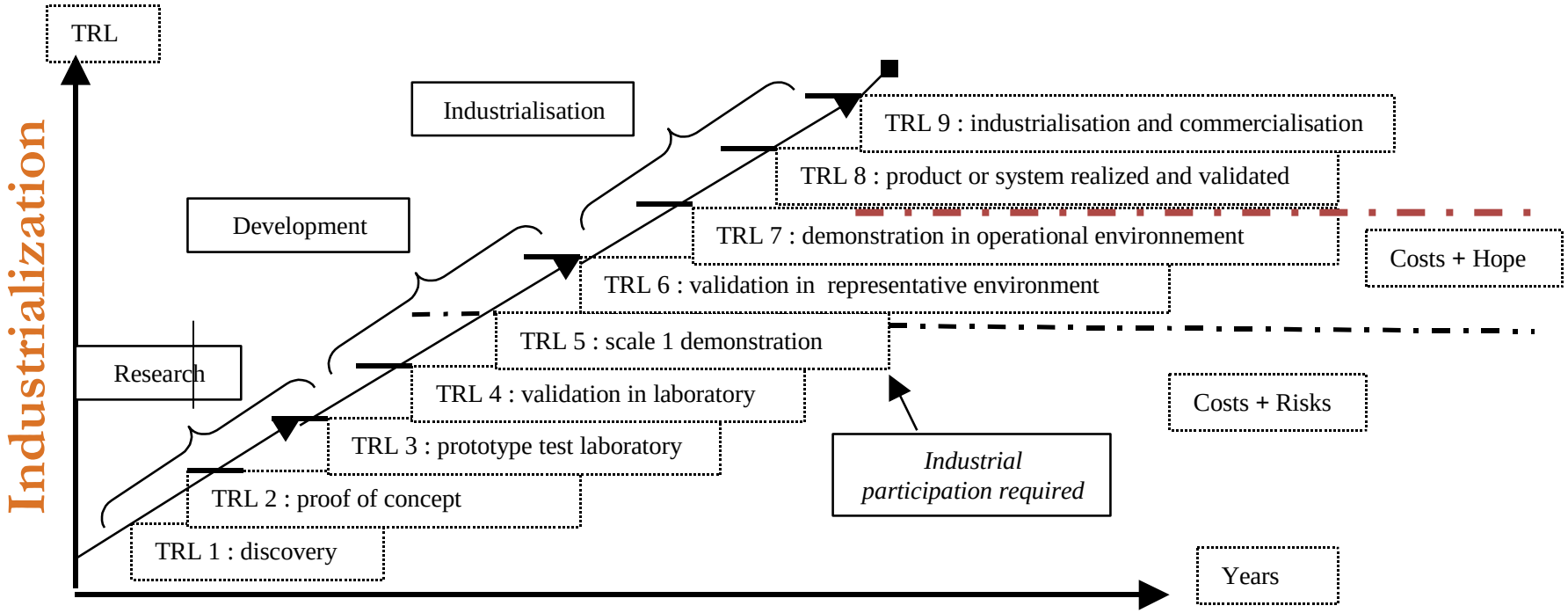
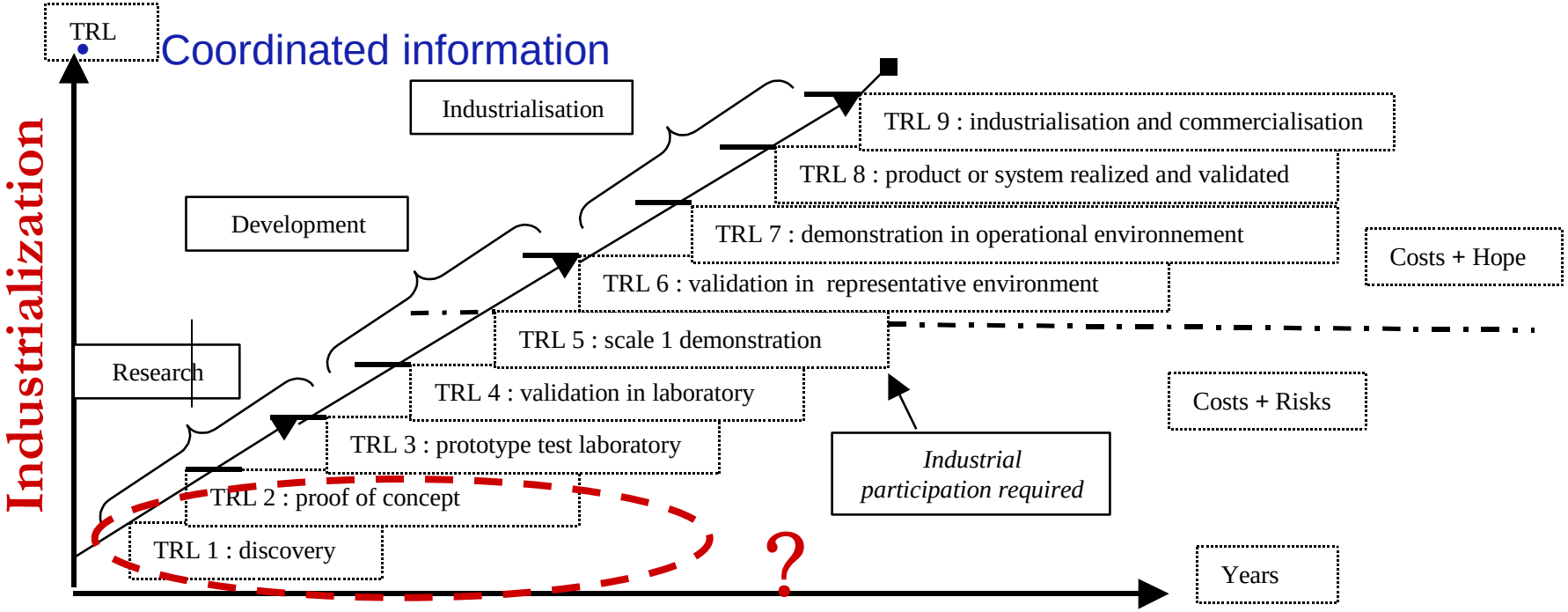


Where is the space for levels 1&2?



Where is the space for levels 1&2?

- Horizon 2020 (FET, Marie Curie, REG POT etc.),
- COST
- National Programs
- OTHERS
- Coordinated information



THANK YOU!