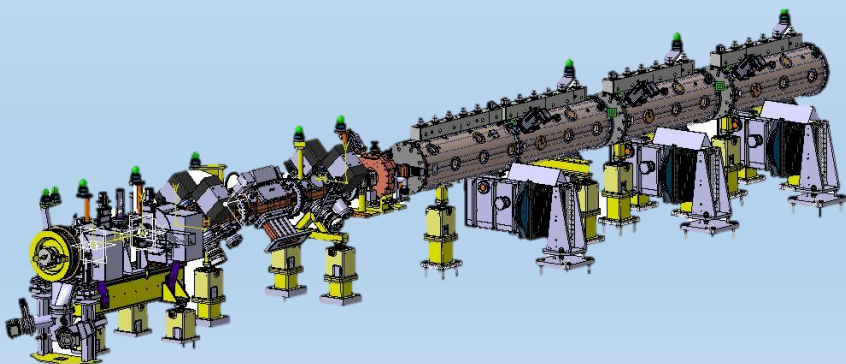




Particle accelerators for society: health, industry, environment, energy

# Research Linear Accelerator

## Needs for a new LINAC & technical assumptions



**Dariusz Bocian**

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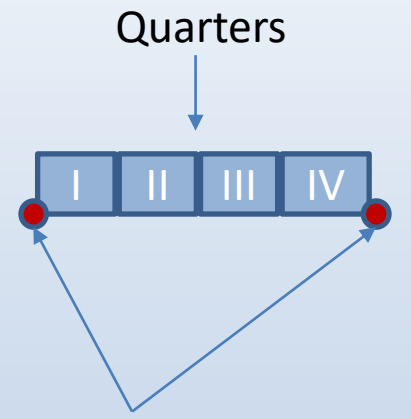
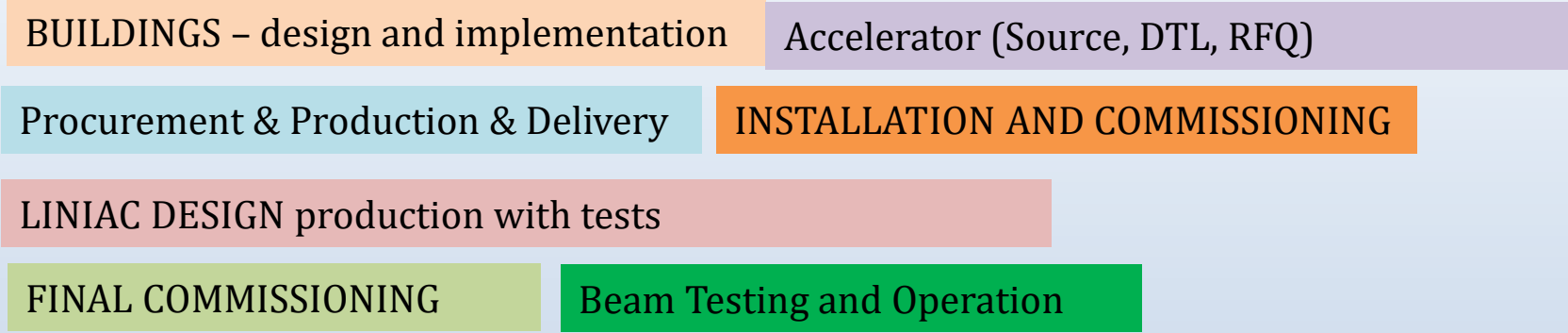
Workshop on Research and Innovation in Poland  
26-27.06.2026

# WORK PACKAGES and actions taken

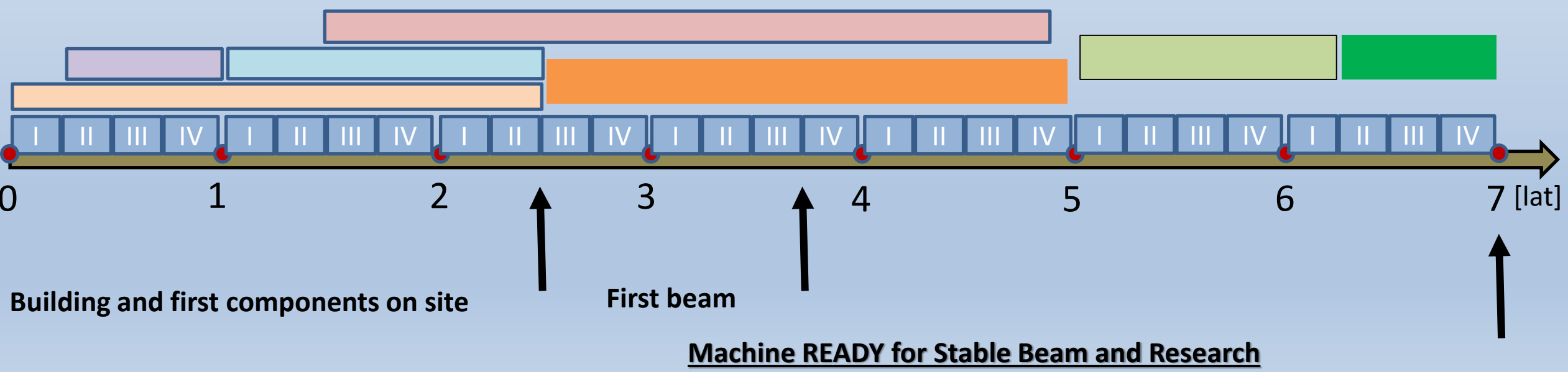
- **WP1 – accelerator**
  - Acquisition of full technical documentation of the LINAC-4 accelerator from CERN (in progress),
  - Linear accelerator design,
  - Beam diagnostics – agreed cooperation with an expert from CERN
  - Power distribution system,
- **WP2 – Basic scientific research (nuclear physics, solid state physics, etc.)**
  - Developing a basic research plan using a new linear accelerator.
- **WP3 – target**
  - Contact to experienced centers
- **WP4 – radioisotope extraction**
  - Working meeting at IFJ PAN
  - Preparation of a report on radioisotope extraction methods.
- **WP5 – Innovative research on targeted therapy**
  - Report of the team working on the carrier platform for the radioisotope and encoded protein.
- **WP6 – Accompanying activities**
  - The radioactive isotope market in Poland and Europe → the state of  $\alpha$  therapy,
  - Human resources and competence building,
  - User community



# Preliminary schedule

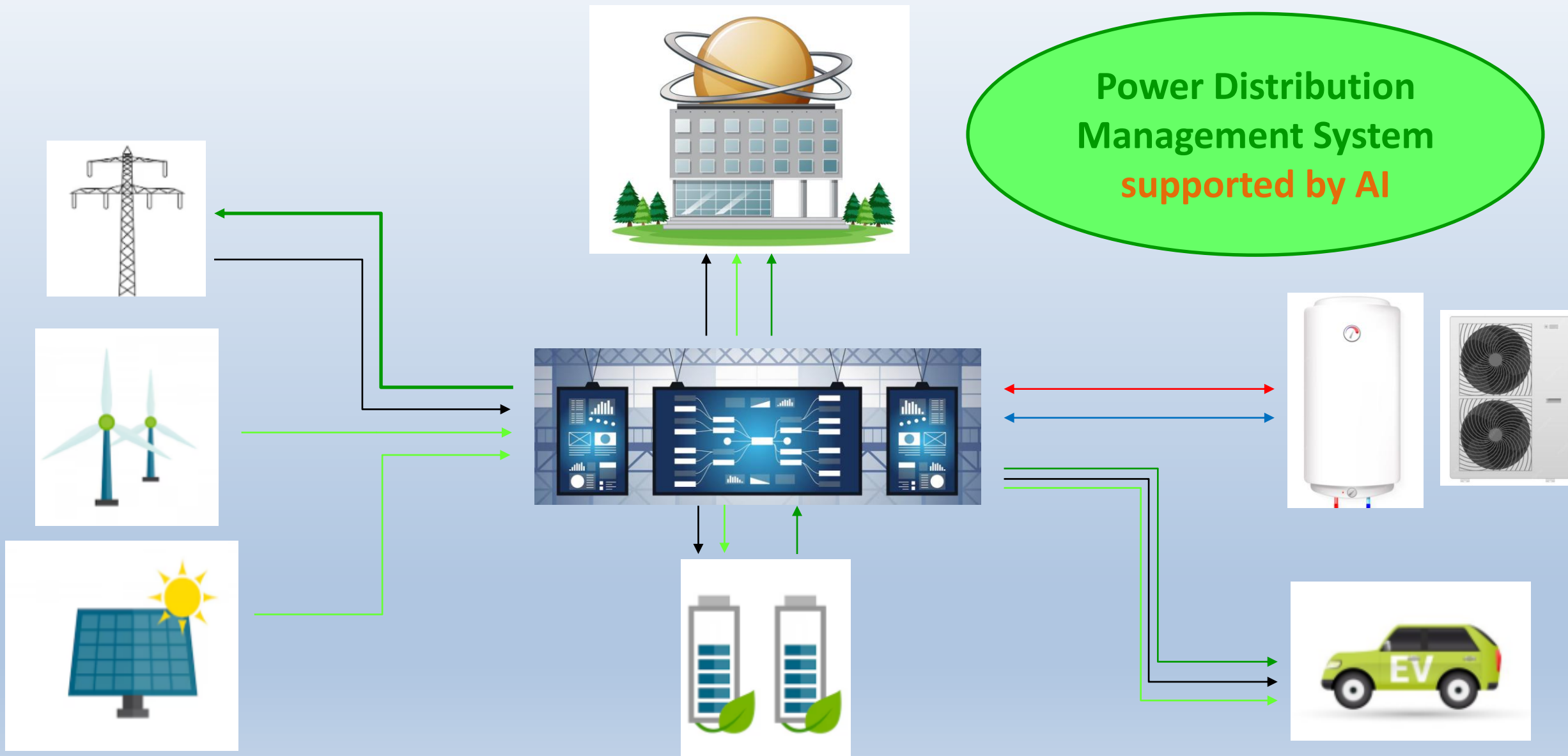


## MILESTONES



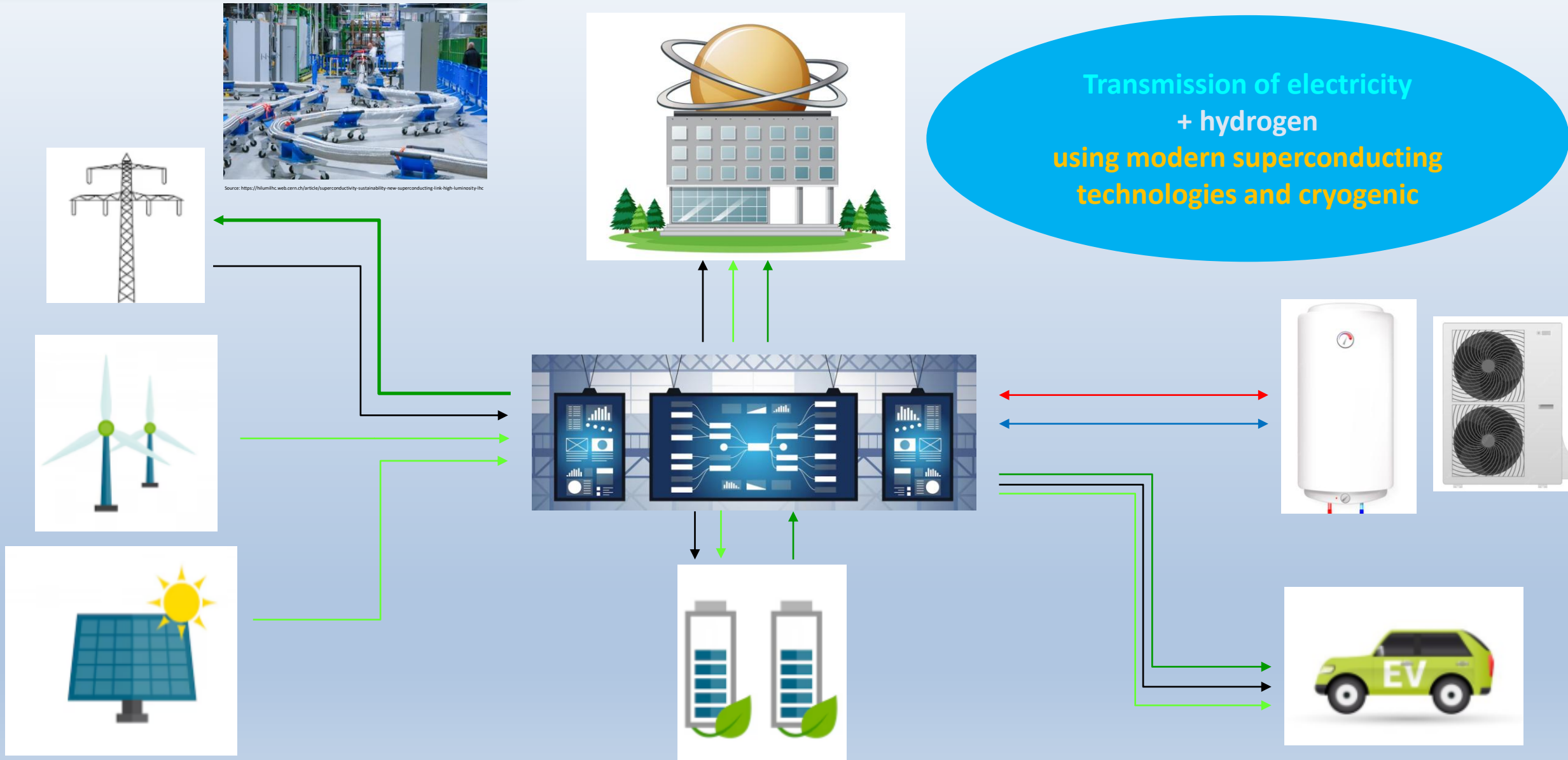


# Accompanying Actions: Innovation





# Accompanying Actions: Innovation



Source: <https://hilumihc.web.cern.ch/article/superconductivity-sustainability-new-superconducting-link-high-luminosity-lhc>



Transmission of electricity  
+ hydrogen  
using modern superconducting  
technologies and cryogenic

