



RED III should focus comprehensively on innovation



Clean electricity is on the right track, **flexible markets and industry demand** are not.

- While learning curves of renewable energy technologies continue to exceed expectations, the distribution and use of this energy still needs significant development.
- Innovative digital technologies fail - not because the technology is not ready, but because the market environment does not allow them to be tested and refined.
- Many energy-intensive industrial processes rely on fossil fuels for heat and chemical feedstock. The technologies for conversion of clean electricity, chiefly electrolysis for hydrogen, are not yet ready to scale up fast enough.

We need new rules for **smart, prosumer-centric grids** and incentivize **data sharing for AI** optimization

- The entire system is locked in a demand-following, decades-old logic of centralized gigawatt-scale power stations. A key challenge in this context is the shift towards a decentralized, highly digital kind of energy market that incentivizes flexibility.
- The new energy system we see emerge consists of a large number of decentralized, smart energy resources that oftentimes have the integrated capability to generate, store, and consume electricity.
- Legislation needs to follow this prosumer-driven infrastructure. Regulation must enable innovative market designs, business models, and data-centric approaches of optimization to thrive.
- In this context, we would suggest requiring member states to offer, in consultation with the scientific community, tenders that require the gathering and sharing of high-quality data from plants under clearly specified conditions.
- Require public bodies to quickly and cost-effectively share renewable-energy-related data that they already hold
- Require Member States to state in their National Energy and Climate Plans (NECP) how they will feed data from RES projects into the Common European Energy Data



To meet the RED's H₂ targets, we must massively fund R&D of critical technological systems, such as **electrolyzers, at scale.**

- We need a specific objective, for example to reach an electrolyzer cost reduction of 40% (300€/kW from 800-700€/kW) in the short term (2030), and 80% (<100-200 €/kW) in the medium term (2050).
- We should fund research into electrolyzer materials and scale-up. We need gigafactories for electrolyzers to reach triple digit GW level H₂ production capacity (>1000 TWh_{H₂,LHV}/y for EU) at practical LCoH.



We should adopt **specific sub-targets for innovative RES within the renewable energy targets in RED III.**

- Public innovation in early stages is critical to help high-impact ideas survive the proverbial *valleys of death*, those critical innovation stages entrepreneurs need to master to reach the mass market.
- Therefore, we need targeted innovation to be able to reach the deployment targets. But innovation in RED III is not concretely incentivized, needs more specific targets in terms of funding, specific necessary legislation to incentivize the commercialization, and technical milestones (performance, capacity, cost).
- Our specific request would therefore be to set a target of 5% of the new capacity to be installed to reach the overall 2030 RES target to be innovative technology.