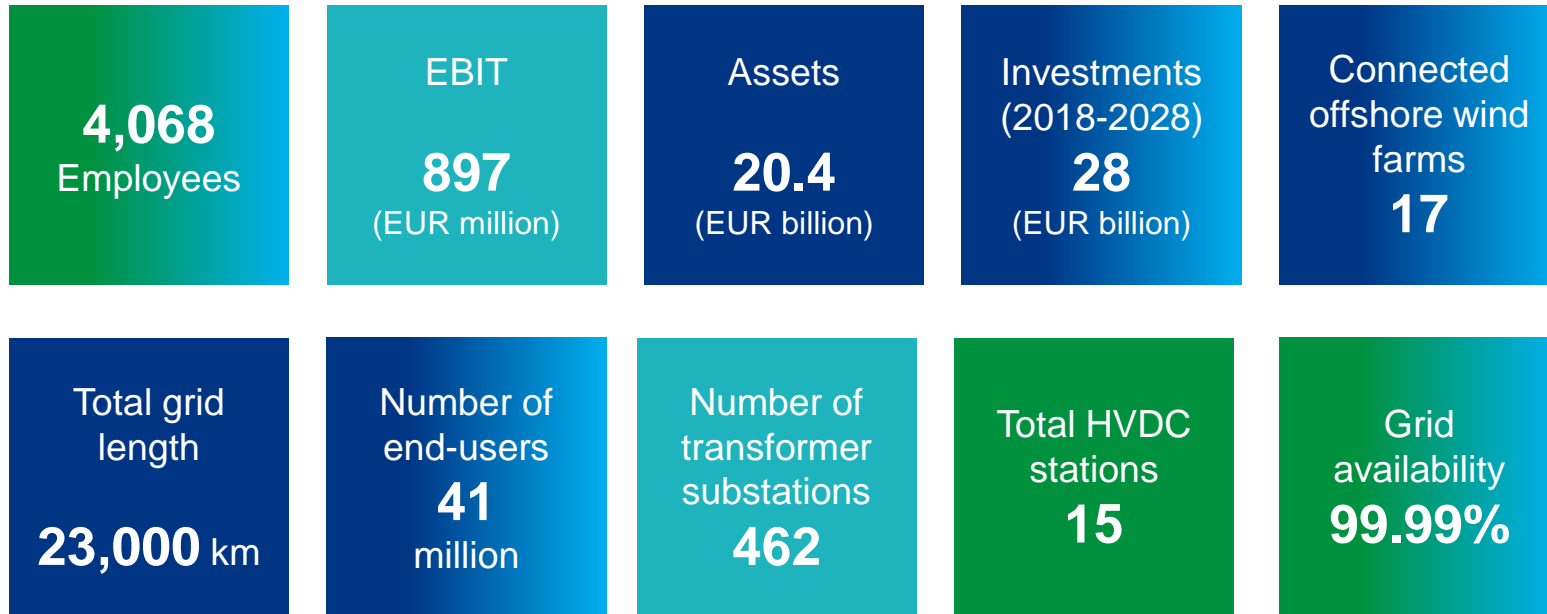


TenneT unlocks distributed flexibility via blockchain

Device democratization and market integration in a decentralized network economy



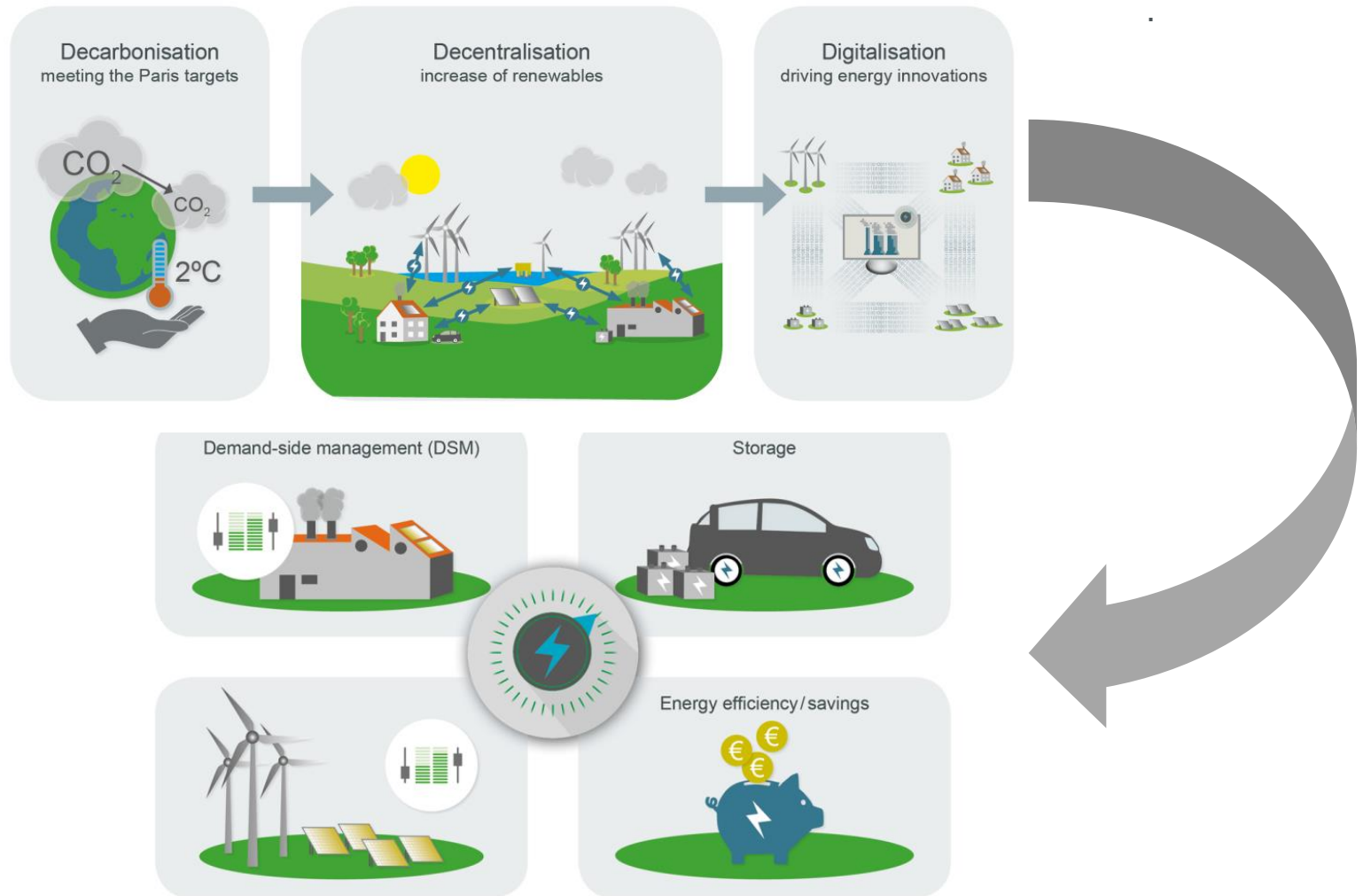
TenneT at a glance





Energy transition & Digitalisation

Turning decentral assets in virtual power plants: the three D's





Increased flexibility by blockchain

Blockchain technology offers opportunities for efficient market integration of distributed flexibility providers in a system with a progressively smaller fraction of large scale centralized assets.

Blockchain is here to stay: foundational technology

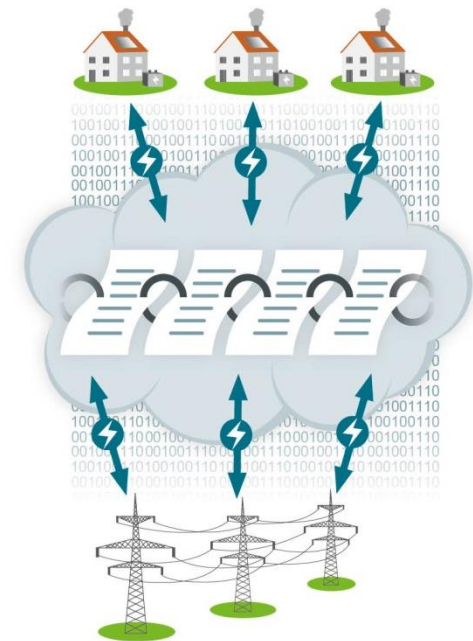
Learn fast, fail often (business use cases)

Why blockchain?

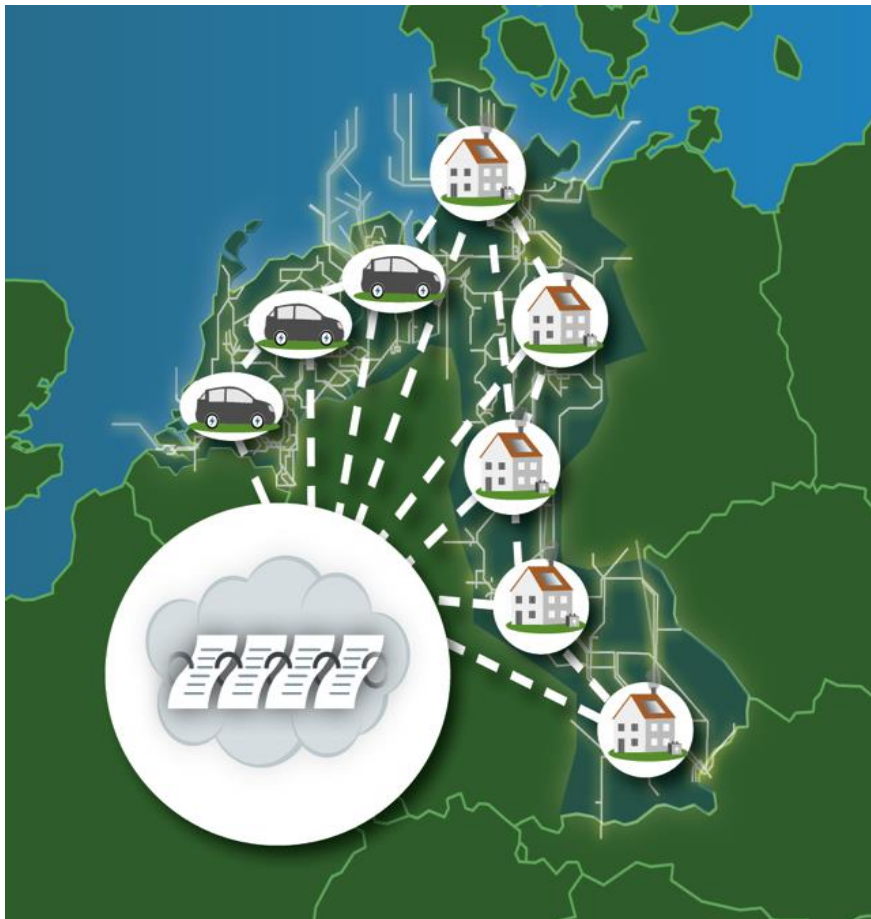
The leading blockchain platform is not invented yet

Only store relevant data on-chain

- By **reducing transaction time and costs**, blockchain technology has the potential to **empower prosumers**, creating a customer empowered energy system
- The technology therefore potentially **increases energy supply** and thus can help **stabilize grid costs**
- Blockchain potentially provides a **transparent, easy to access, and safe platform for unlocking decentralized assets**



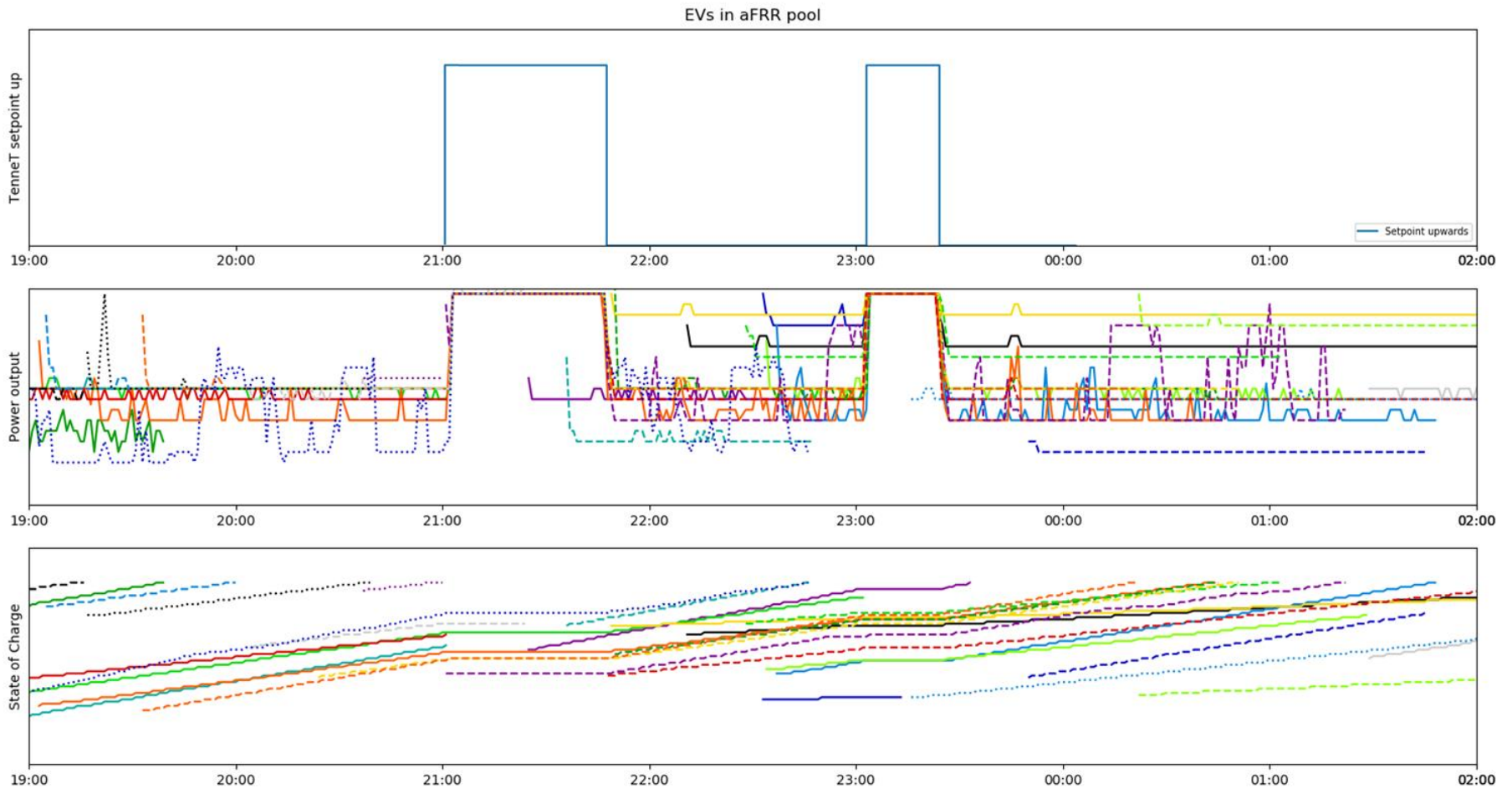
TenneT and blockchain technology



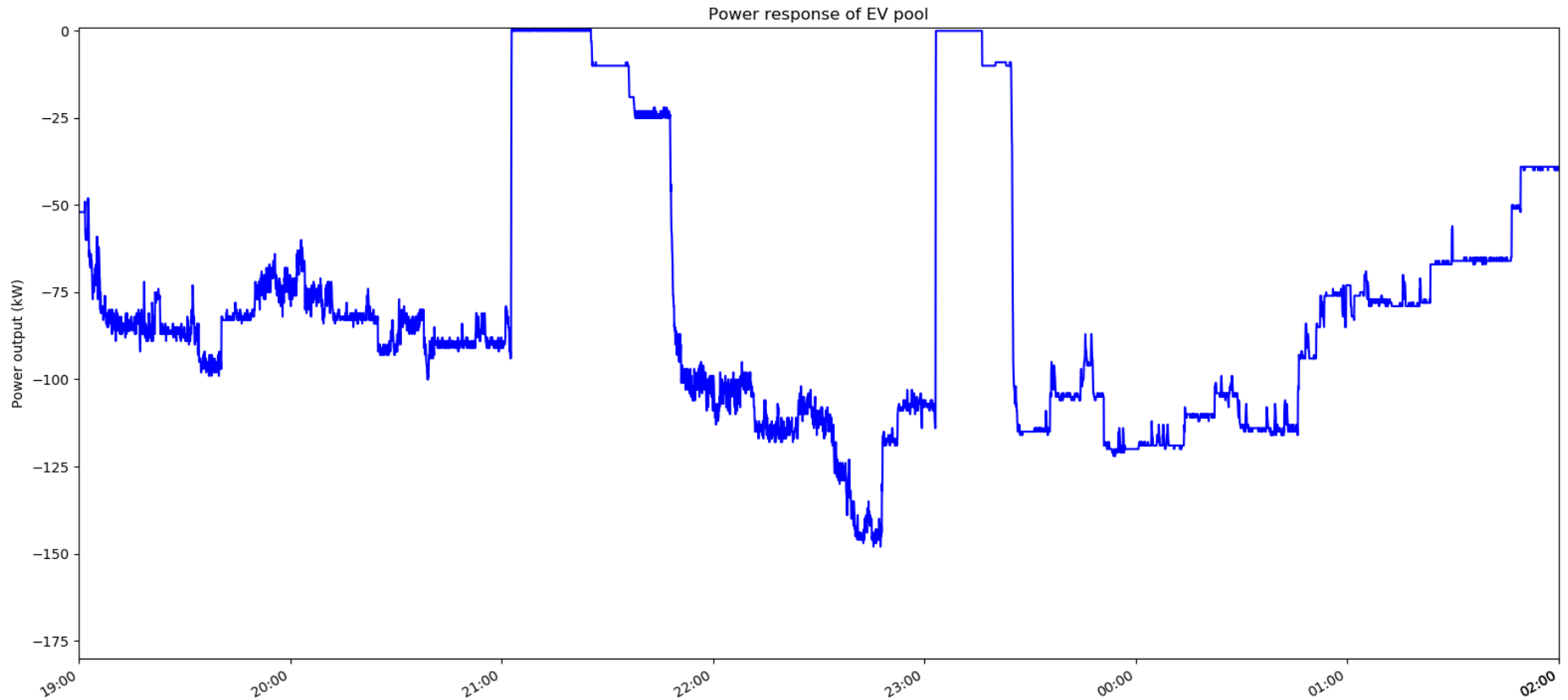
- Objective: gaining practical experience with blockchain technology and interfacing with existing TenneT systems and processes.
- Building on existing blockchain implementation: an open source collaborative effort created to advance cross-industry blockchain technologies
- Platform-based services intended to become accessible for all market participants once the pilot runs successfully



aFRR delivery by EVs



aFRR delivery by a pool of EVs



Thank you for your attention!

Questions?



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TenneT is a leading European electricity transmission system operator (TSO) with its main activities in the Netherlands and Germany. With approximately 22,000 kilometres of high-voltage connections we ensure a secure supply of electricity to 41 million end-users.

Taking power further