



## 1. ENERGY MODERNISATION VIA MCAES/TES

- A new era for energy storage design & manufacture

- Electrification
- Decarbonisation
- Decentralisation



**Microgrid**

**VS**

**VPP**



## 2. MCAES/TES TECHNOLOGY

- Unique modularity & scaling

- Science & engineering
- Capacity & Duration
- Efficiency & Efficacy



Above: The Research Laboratories

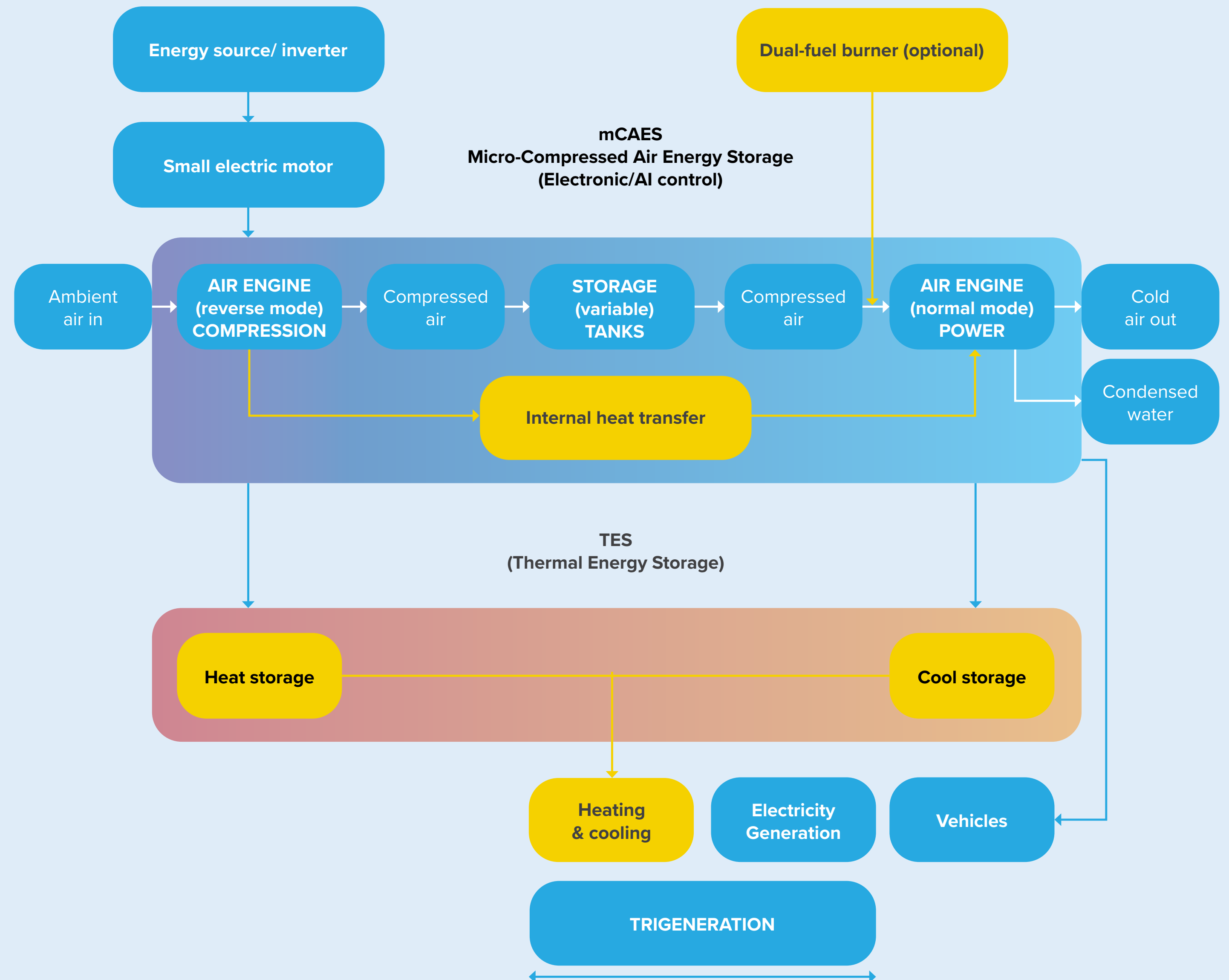
Below: The Storage Laboratory





## MCAES/TES MODULARITY SYSTEM

- Energy storage, trigeneration, and vehicle propulsion





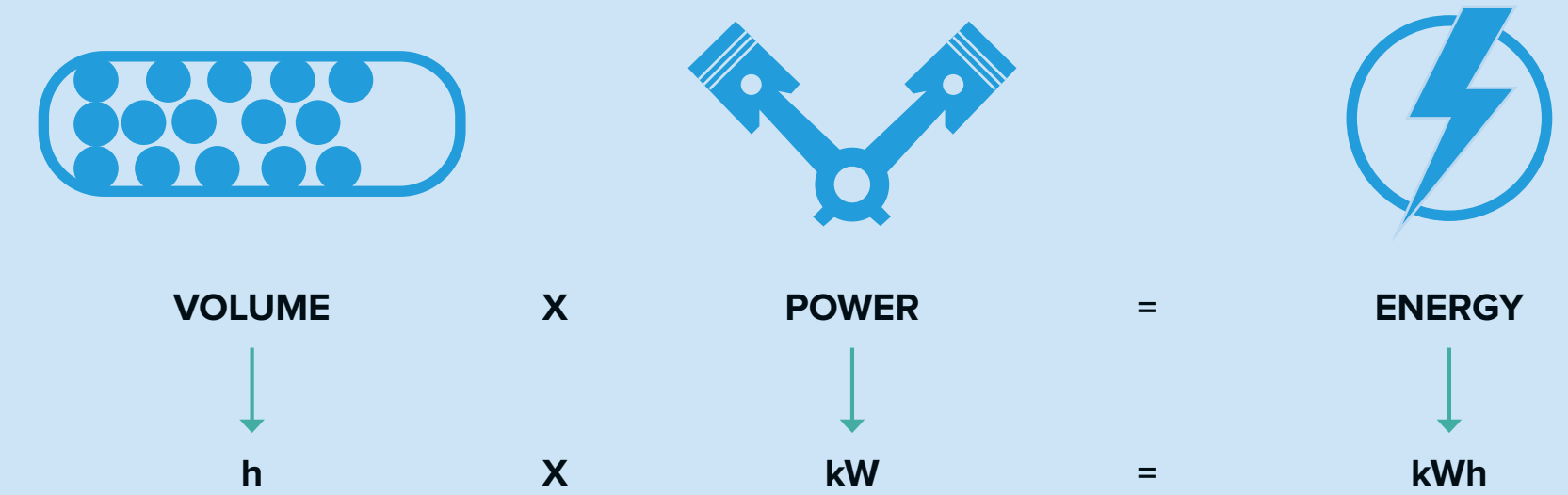
### 3. CENTRALISED STORAGE CHALLENGES

- Cost, carbon & deliver

- Centralised utility storage
- Decentralised locational storage
- Sharing, resilience & reliability



AIR ENERGY CONVERSION



Above: Capacity & duration are decoupled



Complete modularity for storage capacity & duration





**AIRFUTURE** →



Centralised storage has regional limitations



## 4. DECENTRALISATION STORAGE POTENTIAL

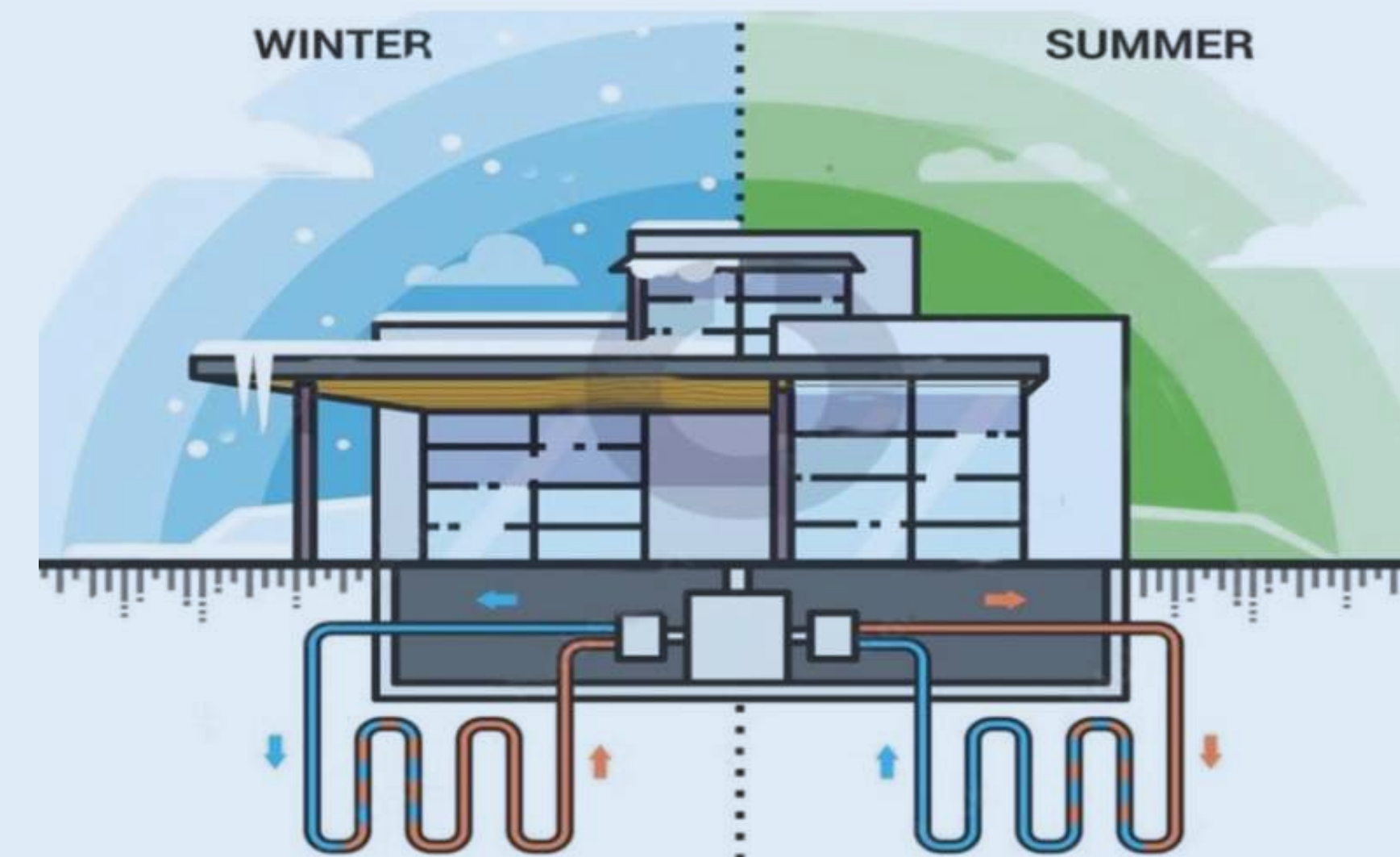
### A world of energy sharing

- Individuals & communities
- Commercial & industrial
- Shared storage farms



Storage can be mobile or fixed such as underground storage farms

MCAES is replicable & adaptable across regions globally.

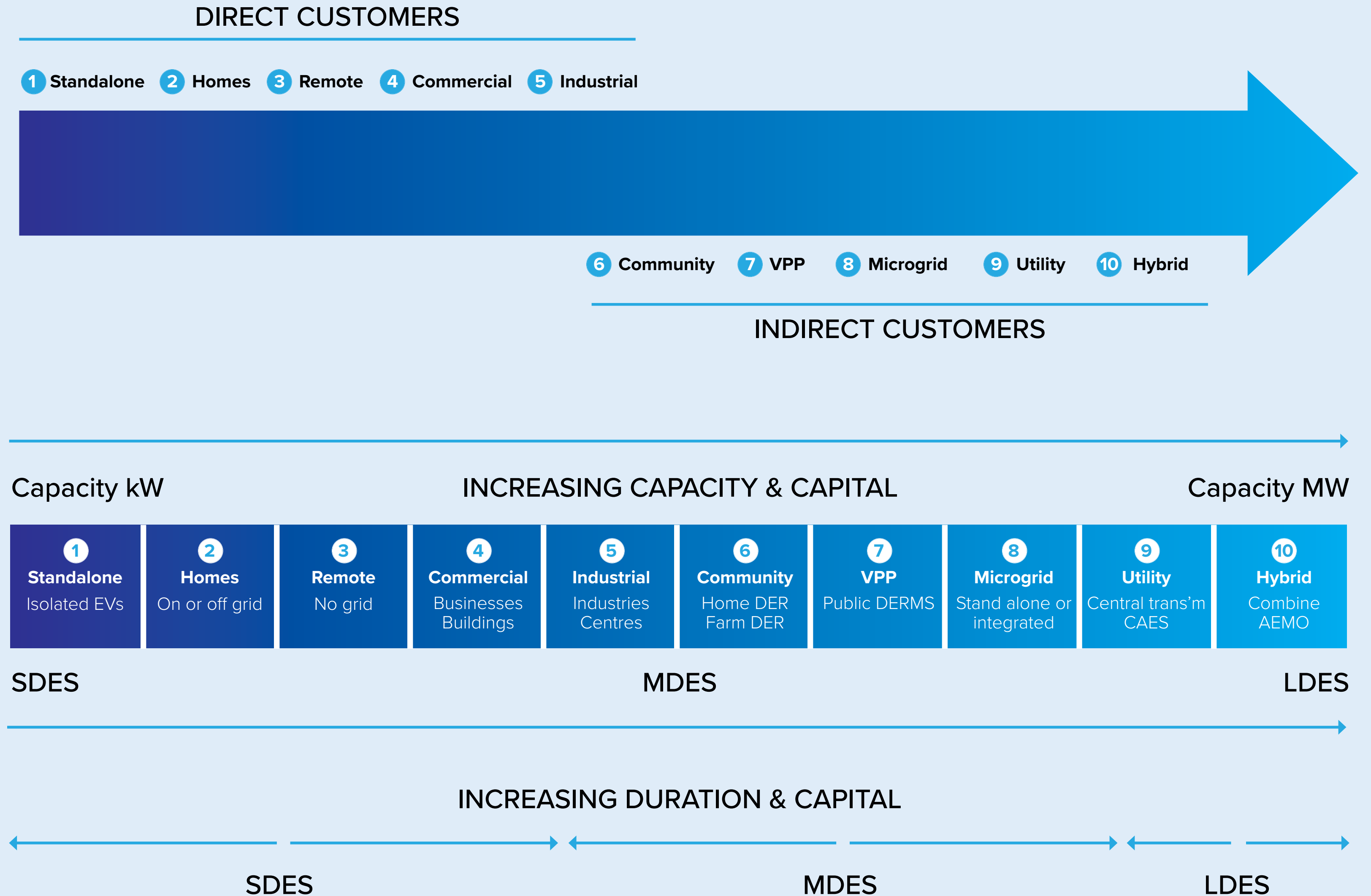




## THE MIDDLE DURATION DECENTRALISED STORAGE GAP

The top larger arrow shows the increasing size of storage.

The bottom group of arrows show where the storage sizes fit for various markets.

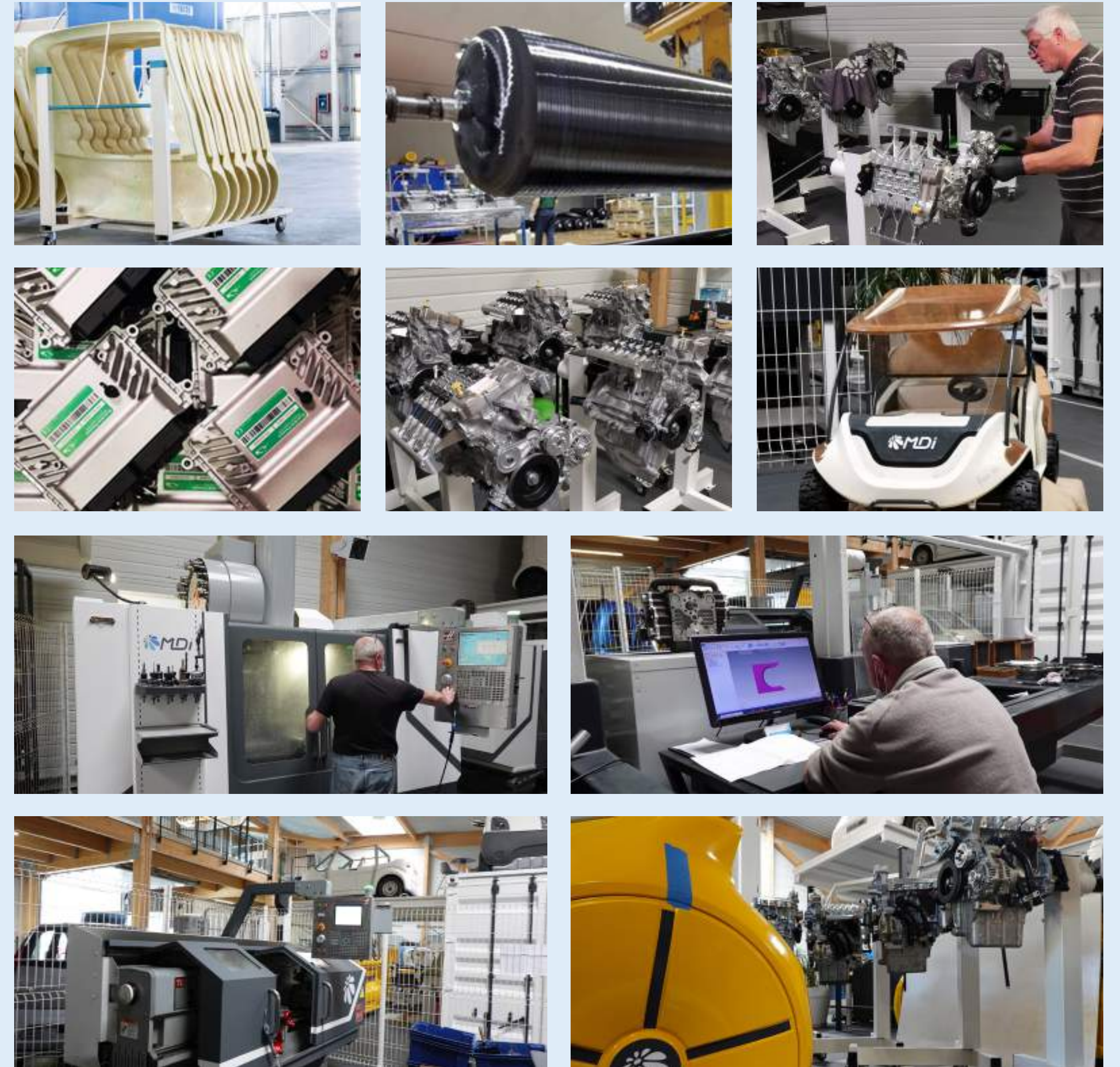




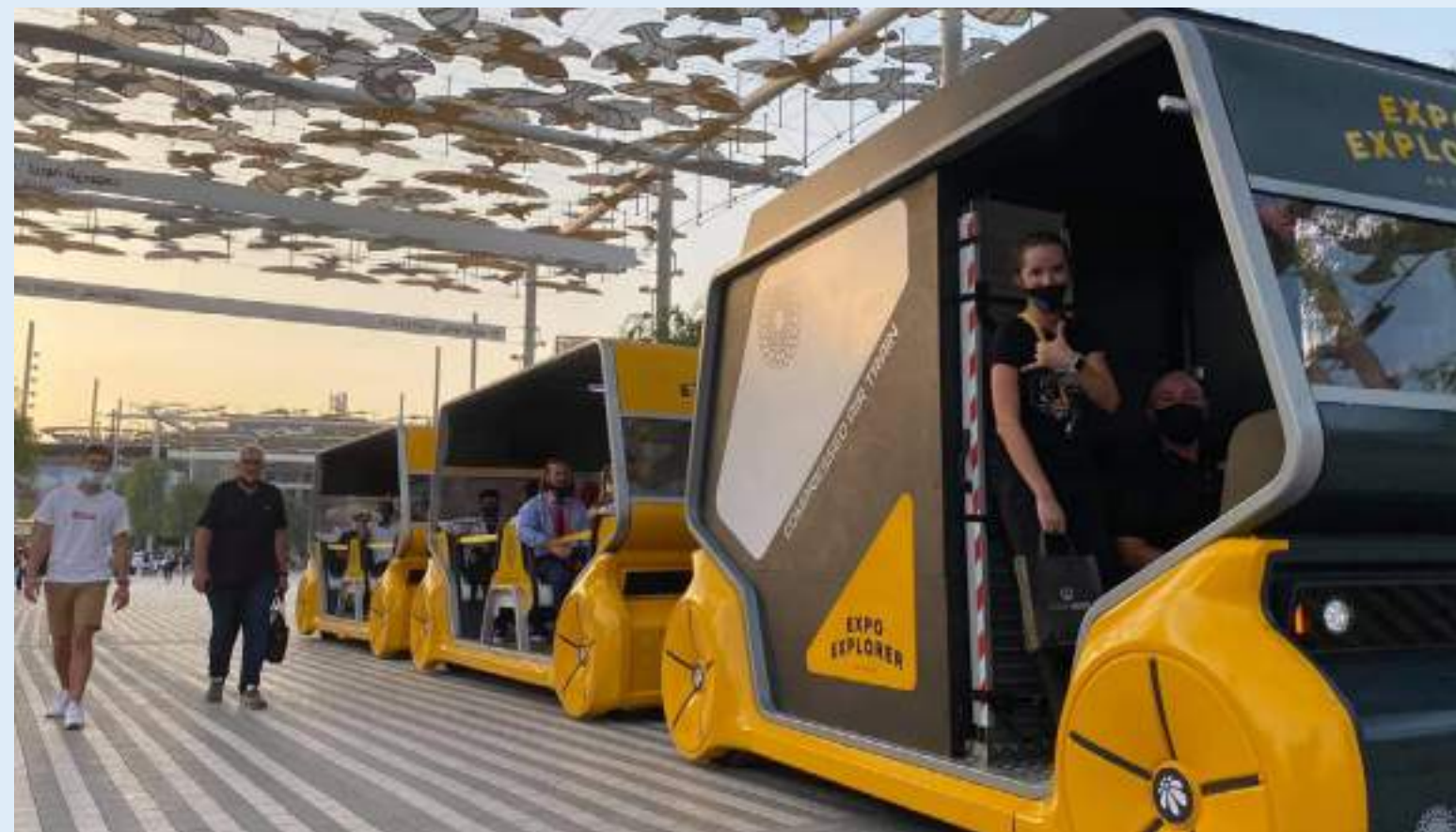
## 5. DISTRIBUTED & REGIONAL MANUFACTURE

- Control & benefits to the regions

- Outsourcing manufacture
- Factory manufacture
- Regional industry



We can either outsource the manufacturing and assembly, or we can build a dedicated turnkey micro factory as part of regional growth. Above shows the outsourcing for the AirTrain.



Above: Examples of commissioned mCAES vehicles

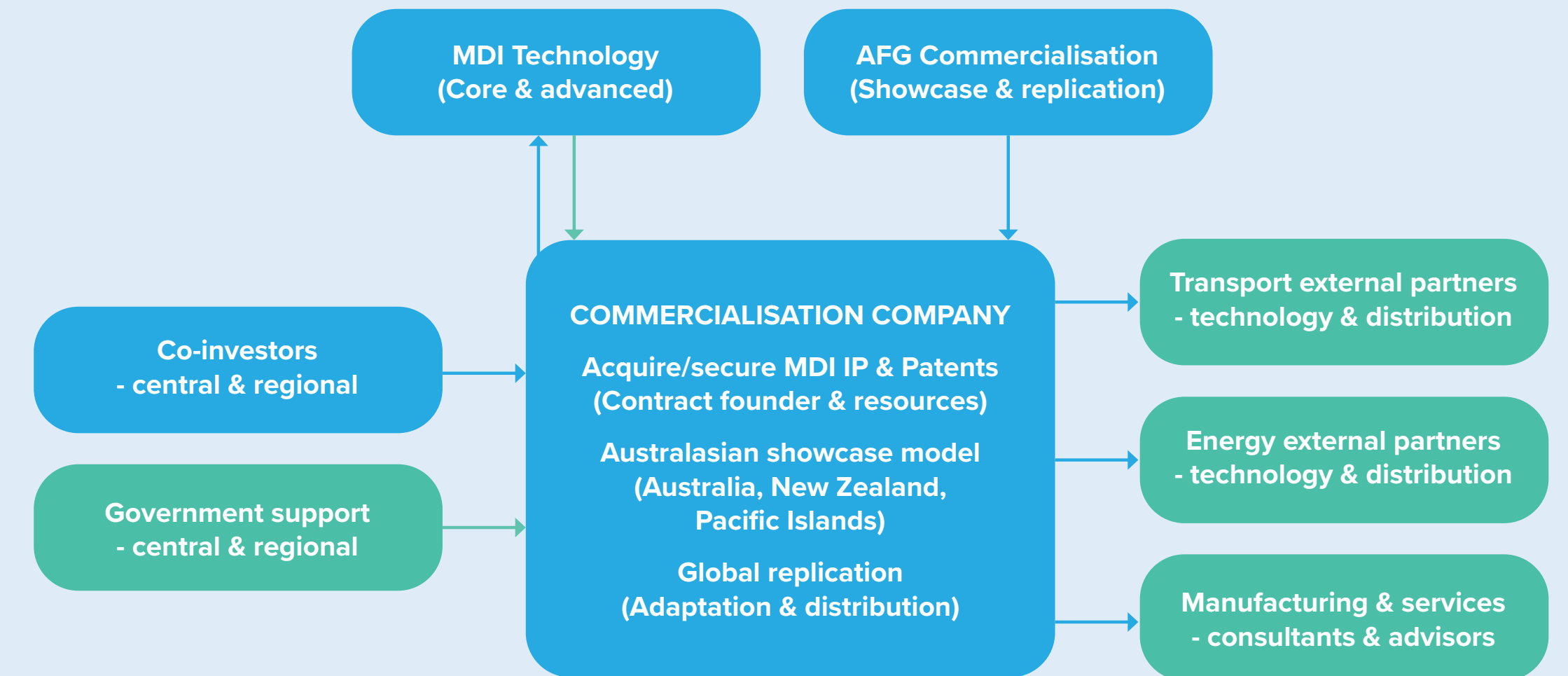
Above: Modularity demonstrated across many vehicle models

## 6. AUSTRALASIAN SHOWCASE & GLOBAL REPLICATION

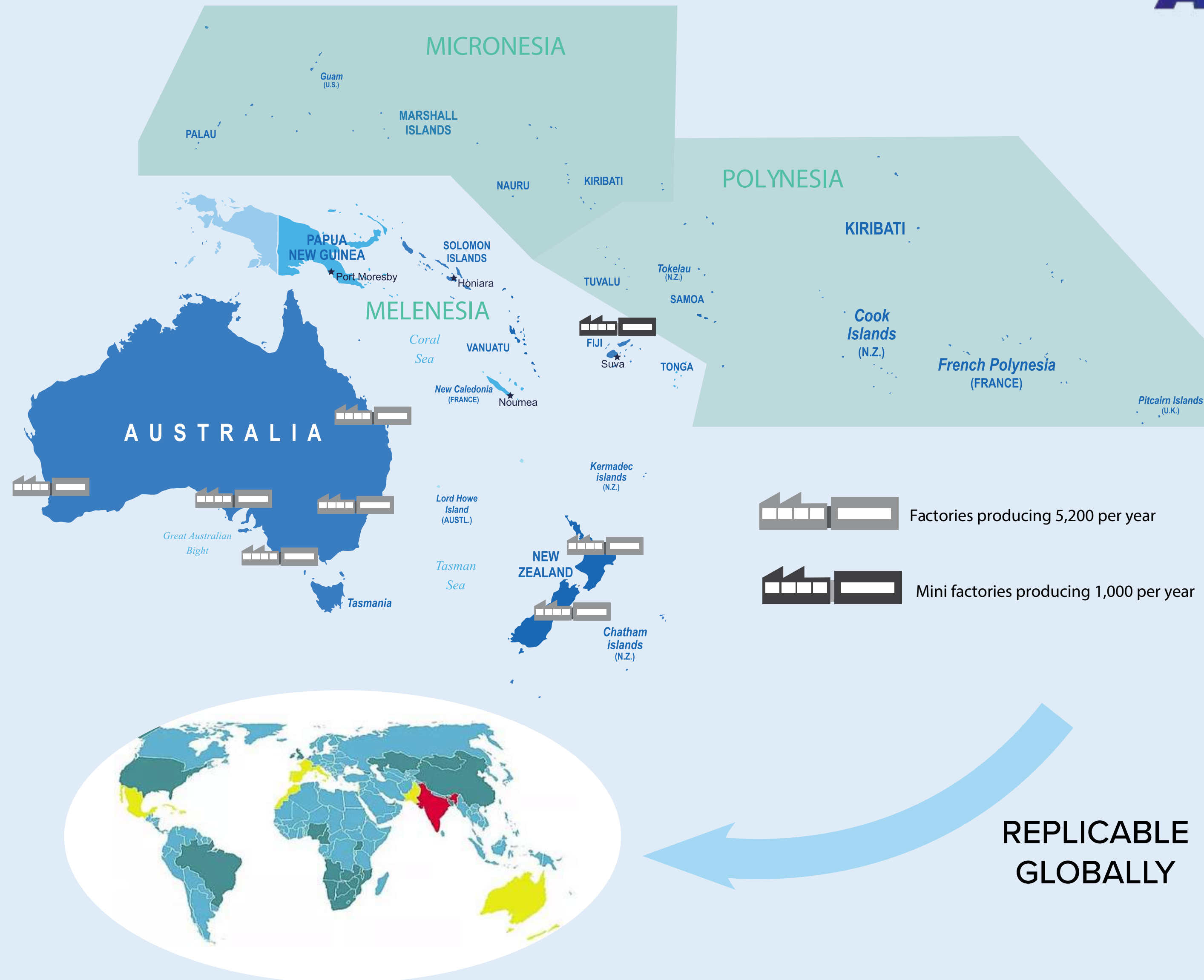
- Sponsoring new renewables industries

- Resources & projects
- Replicability & adaptability
- Distributed regional resources

Business resources structure for speedy traction



mCAES serves the COP requirement of Justice for All UN Award for "Powering the Future we Want"



The huge opportunity for Australasia as a global showcase

## THE AIR FUTURE & MDI EXECUTIVES IN THEIR EUROPEAN COMMERCIAL WORKSHOPS.



Above: Australian AFG & European MDI in France planning the Australasian showcase.



Above: Chairman Russell Fitts at the wheel of the later CAEV development model AirPod 2.0



Above: CEO John Mennega driving early CAEV on MDI test track in France