

ClimateFlex Assets

Modular solar-climate nodes for integrated regional energy systems

A single scalable ecosystem to address interconnected climate–energy challenges

High energy prices, grid stress / blackout risk, heat waves, thermal stress, clean-energy transition, renewable integration and the expansion of e-mobility are not separate problems. Climate Assets treats them as one spatial, energy and service-system challenge.



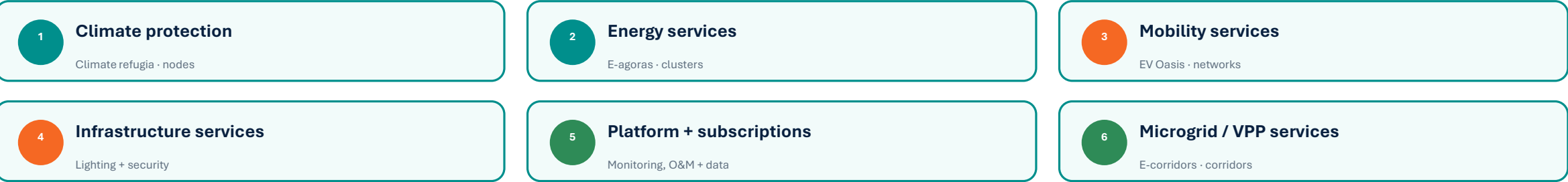
From passive outdoor space to distributed climate–energy asset

Climate Assets response
Transform passive objects into technological and digital skins for the local generation, storage and circulation of clean energy — supporting climate protection, energy exchange, clean mobility, infrastructure services, platform/subscriptions and regional flexibility.

Solar Patio = researchable MVP platform

- lightweight / flexible PV skin
- shade, cooling support + lighting
- sensors, monitoring + digital control
- storage-ready power architecture
- e-bike / small EV charging
- local energy-service potential

One ecosystem · interconnected service layers



R&I ambition

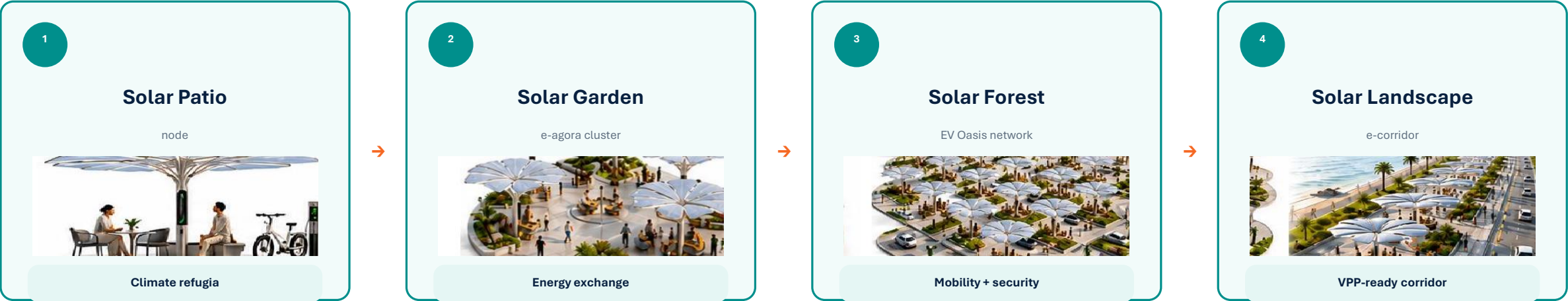
move from concept / TRL 3–4 toward prototype, measured pilot and replicable regional deployment package

Concept / TRL 3–4 → Prototype / MVP → Measured pilot KPIs → Regional replication package

From Solar Patio to regional flexibility platform

The innovation is not only the object; it is the aggregation logic.

Solar Patio → Solar Garden → Solar Forest → Solar Landscape



At scale, assets become a distributed energy-resource and service ecosystem

- local generation + storage nodes
- EV Oasis networks: charging, lighting + security
- platform/subscriptions: monitoring, O&M + data

- e-agora clusters for local energy exchange
- infrastructure services: public-space support
- microgrid-ready spaces + VPP-ready corridors

CM08 R&I questions

Measure	energy, comfort, use, charging, O&M and local demand
Model	generation, storage, loads, local exchange and flexibility potential
Operate	charging logic, storage dispatch, DSO/VPP interface and control
Validate	pilot KPIs, unit economics, replication package and regional scalability

Partners sought

Universities/RTOs · DSOs · VPP aggregators · storage/BMS · flexible PV · digital twin/sensors · mobility + infrastructure operators · municipalities/pilot sites · energy-service / platform operators

Matchmaking ask: co-develop and validate the Solar Patio as the first unit of a scalable distributed energy-resource and service system — from climate refugia to e-agoras, EV Oases, infrastructure services, platform/subscriptions and microgrid/VPP-ready e-corridors.