TENUTE DI BATTISTA

EXECUTIVE BRIEF 2026

Resilient agriculture, applied research, water, energy and integrated technology.



Public non-confidential version
November 2026

tenutedibattista.com

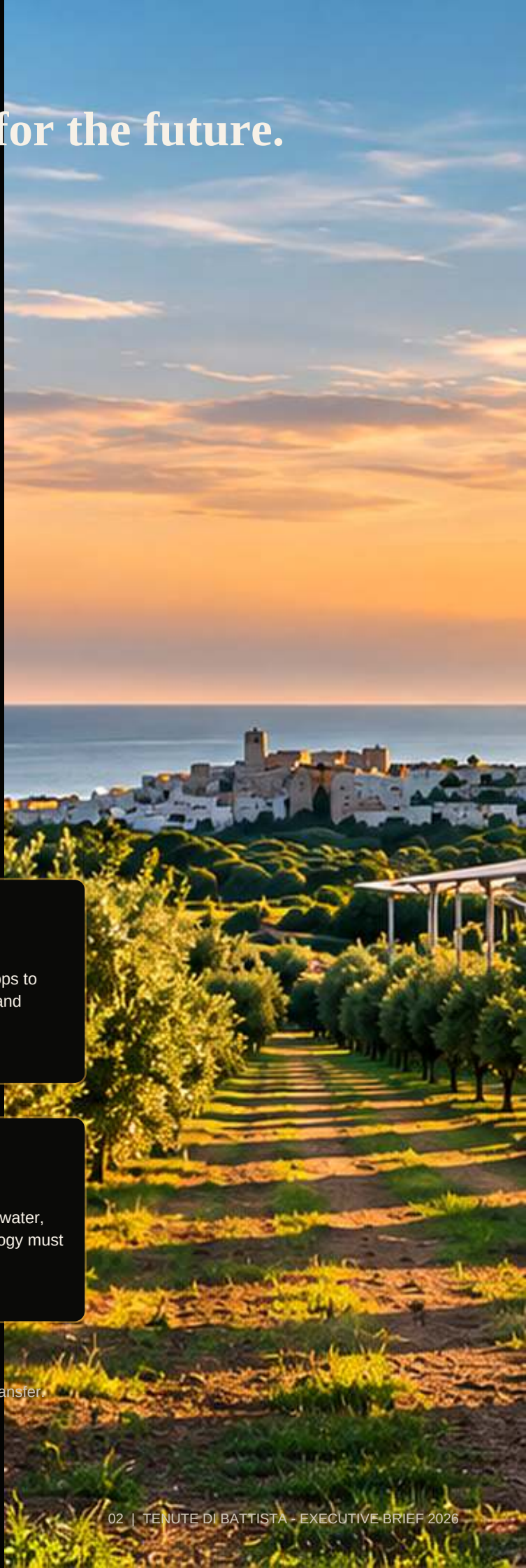
Summary document. Proprietary technical configurations, CAD files, experimental protocols, formulations, confidential data and detailed economic models are not included.

01 / VISION

From the land, a system for the future.

TENUTE DI BATTISTA is an entrepreneurial and research initiative under development in Puglia, Italy. It originates from Mediterranean olive growing and from the need to address water scarcity, climate stress, soil health, production quality and resource management through an integrated approach.

The first application reference is the olive tree - with Coratina as the reference cultivar - but the vision is broader: to build modular, transferable systems capable of connecting the field, research, infrastructure, water, energy and data.



01

Water

Collect, measure and use a resource that is becoming increasingly critical more efficiently.

02

Climate

Increase the ability of crops to cope with heat, drought and climate variability.

03

Knowledge

Turn observations and data into decisions, experiments and validation.

04

Integration

Avoid isolated solutions: water, energy, sensing and biology must work together.

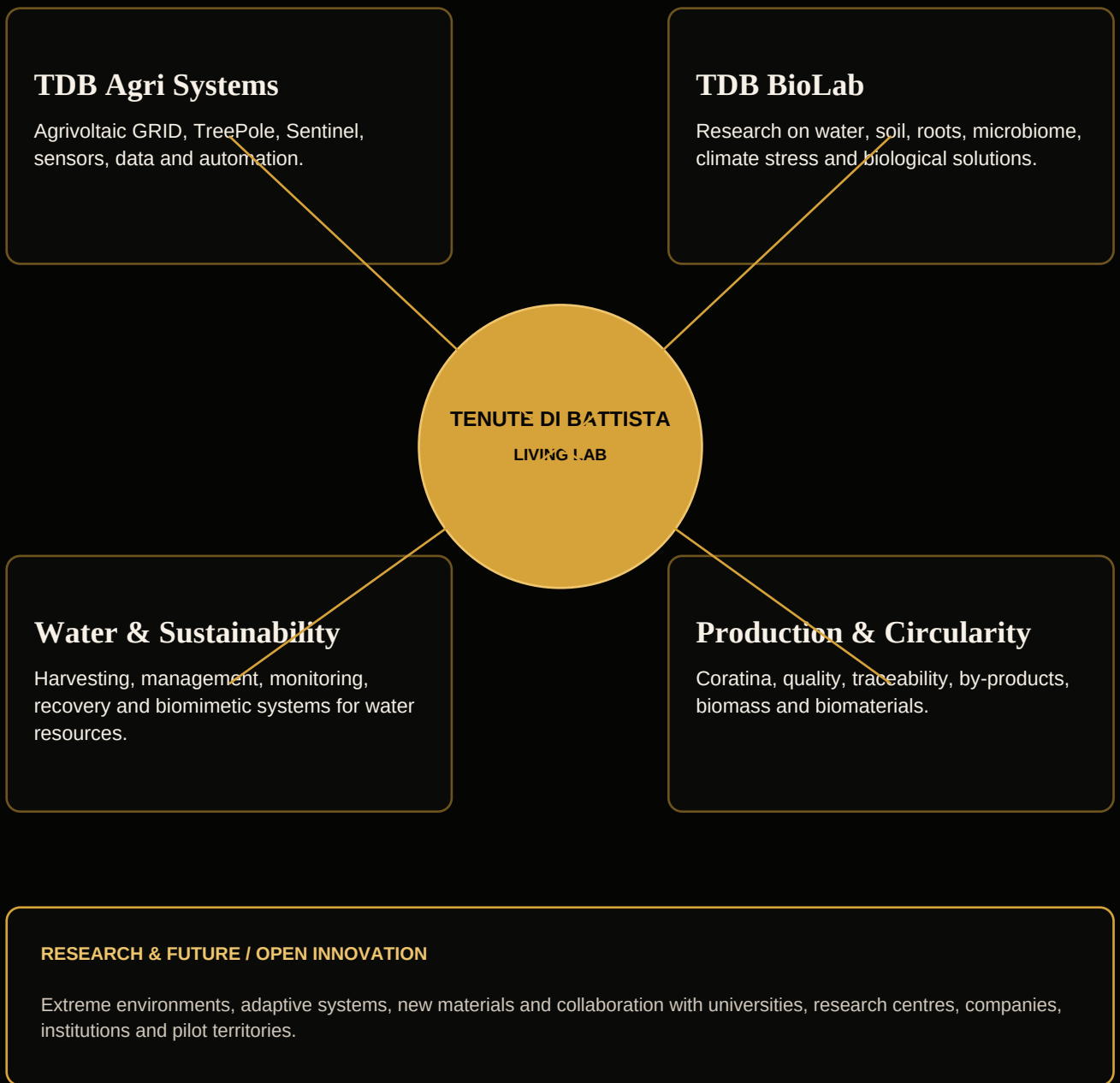
Method: observe -> measure -> design -> prototype -> test -> validate -> transfer

02 / ARCHITECTURE

One ecosystem, multiple systems.

The project is conceived as a modular, integrated Living Lab.

TENUTE DI BATTISTA is not conceived as a single product. The objective is to build a research and development platform in which agricultural infrastructure, biology, water management, production and data operate as parts of the same system.



RESEARCH & FUTURE / OPEN INNOVATION

Extreme environments, adaptive systems, new materials and collaboration with universities, research centres, companies, institutions and pilot territories.

Status: entrepreneurial initiative under development; corporate structure, partnerships and operating arrangements are being defined.

03 / TDB AGRI SYSTEMS

Technology serving the field.

A modular architecture designed to integrate energy generation, water management, monitoring, safety, service distribution and data.



01

TDB GRID

Agrivoltaic primary infrastructure under development: energy, rainfall harvesting and agricultural services integrated into the same structure.

02

TreePole

Field node for sensors, local management and connection between plant, soil, water and the monitoring network.

03

Sentinel

Environmental and territorial monitoring: weather conditions, smoke, security and alert functions that can be integrated.

04

Data Layer

Data, analytics and automation as a cross-cutting layer for interpreting conditions and supporting decisions.

Modularity enables phased development, avoiding dependence on a single configuration or scale.

04 / TDB BIOLAB

Research that generates applications.

TDB BioLab is conceived as an R&D; centre under development: not an auxiliary laboratory, but an autonomous component of the project capable of generating knowledge, prototypes, intellectual property and potential application lines.

WATER

Water efficiency, stress and plant interactions.

SOIL & ROOTS

Soil conditions, nutrition, root systems and plant health.

MICROBIOME

Microbial communities and plant-soil biological interactions.

CLIMATE STRESS

Heat, drought and physiological response.

BIOLOGICAL SOLUTIONS

Biostimulants and microorganisms to be scientifically assessed.

BIOMASS & MATERIALS

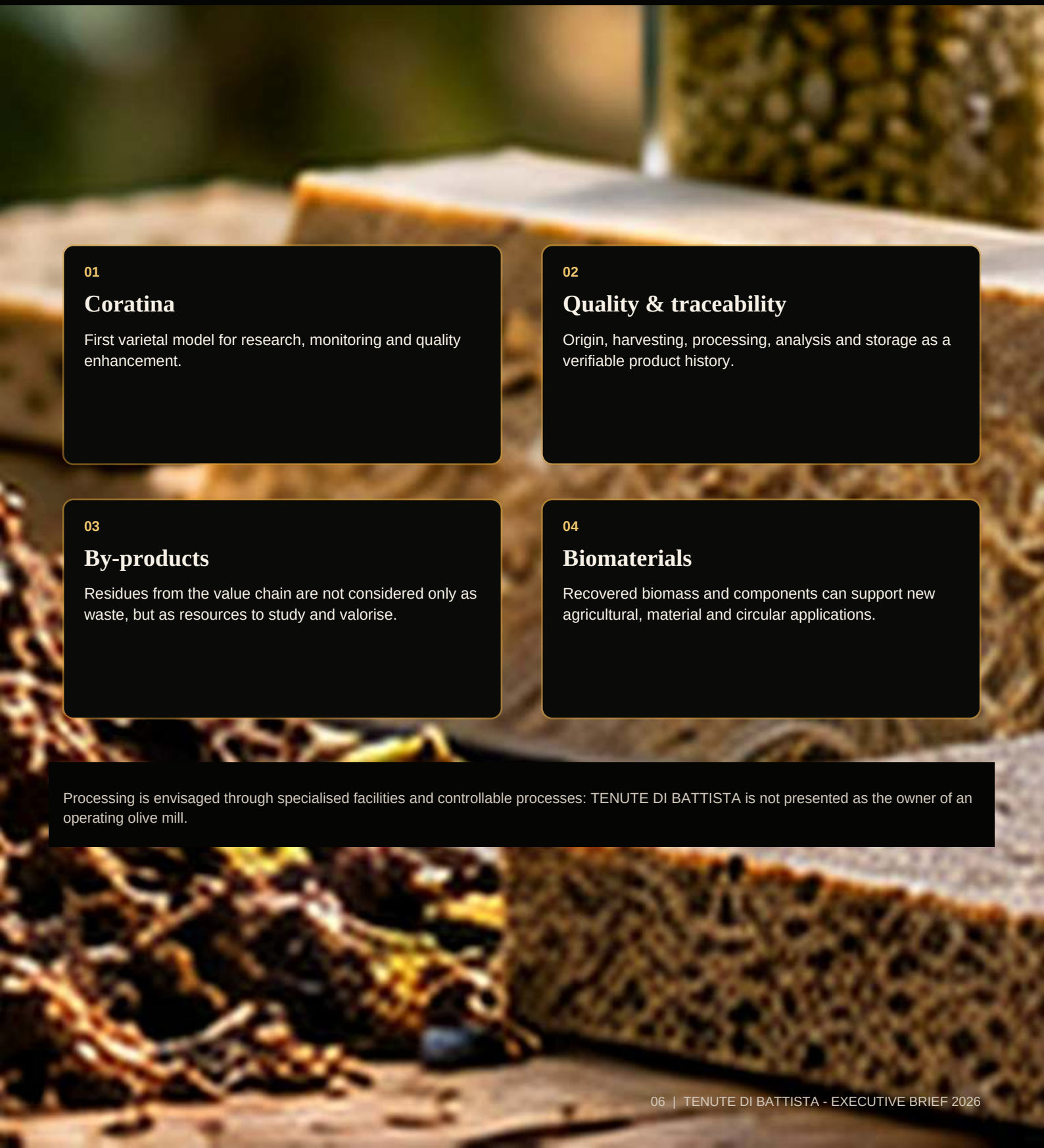
Valorisation of agricultural resources and research into new biomaterials.

RESEARCH -> PROTOTYPE -> VALIDATION -> IP / TRANSFER



More value from the olive tree.

Coratina is the project's first reference cultivar. The olive value chain becomes an experimental field in which plant health, fruit quality, processing, traceability and resource recovery can be connected.



01

Coratina

First varietal model for research, monitoring and quality enhancement.

02

Quality & traceability

Origin, harvesting, processing, analysis and storage as a verifiable product history.

03

By-products

Residues from the value chain are not considered only as waste, but as resources to study and valorise.

04

Biomaterials

Recovered biomass and components can support new agricultural, material and circular applications.

Processing is envisaged through specialised facilities and controllable processes: TENUTE DI BATTISTA is not presented as the owner of an operating olive mill.

06 / RESEARCH & FUTURE

From the Mediterranean to more complex scenario

Puglia and the Mediterranean are the starting point: territories where water stress, heat, difficult soils and environmental pressures already make visible some of the challenges that agriculture will increasingly face.



EXPLORATION LINES

- Extreme environments and water scarcity
- Biomimetic systems for water management
- Coastal agriculture and saline conditions
- Modular and adaptive systems
- New materials and lightweight infrastructure

OPEN INNOVATION

UNIVERSITIES
Research and scientific validation

RESEARCH CENTRES
Specialist expertise and experimentation

COMPANIES & INDUSTRY
Engineering, prototyping and transfer

INSTITUTIONS
Territories, programmes and demonstrators

PILOT TERRITORIES
Testing in real conditions and scalability

Collaborations are being sought and developed: this document does not present relationships as formalised where they are not.

07 / STATUS & ROADMAP

Where we are. Where we want to go.

In 2026 the project consolidated its architecture, expanded its research lines and initiated technical, scientific and institutional discussions. The priority now is to turn concepts into prototypes and validated data.

CONCEPT | ENGINEERING | PROTOTYPE | TEST | VALIDATION | TRANSFER

1

Structure

Define the corporate vehicle, governance and operating structure.

2

Engineering

Complete technical design and integration of the subsystems.

3

Prototypes

Build physical modules and prototypes for the priority development lines.

4

Testing

Run field and laboratory trials with qualified partners.

5

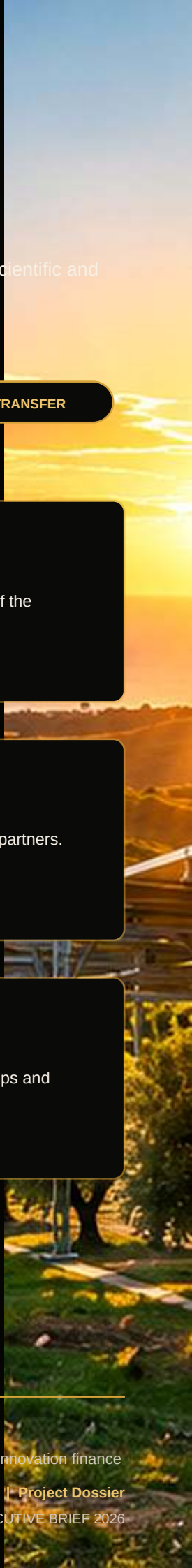
Validation & IP

Measure results, protect solutions and define what can be transferred.

6

Scale

Activate demonstrators, industrial partnerships and growth finance.



COLLABORATIONS SOUGHT

Universities and research | engineering and prototyping | industry and materials | pilot territories | institutions | investors and innovation finance

Ancient roots. Future vision.