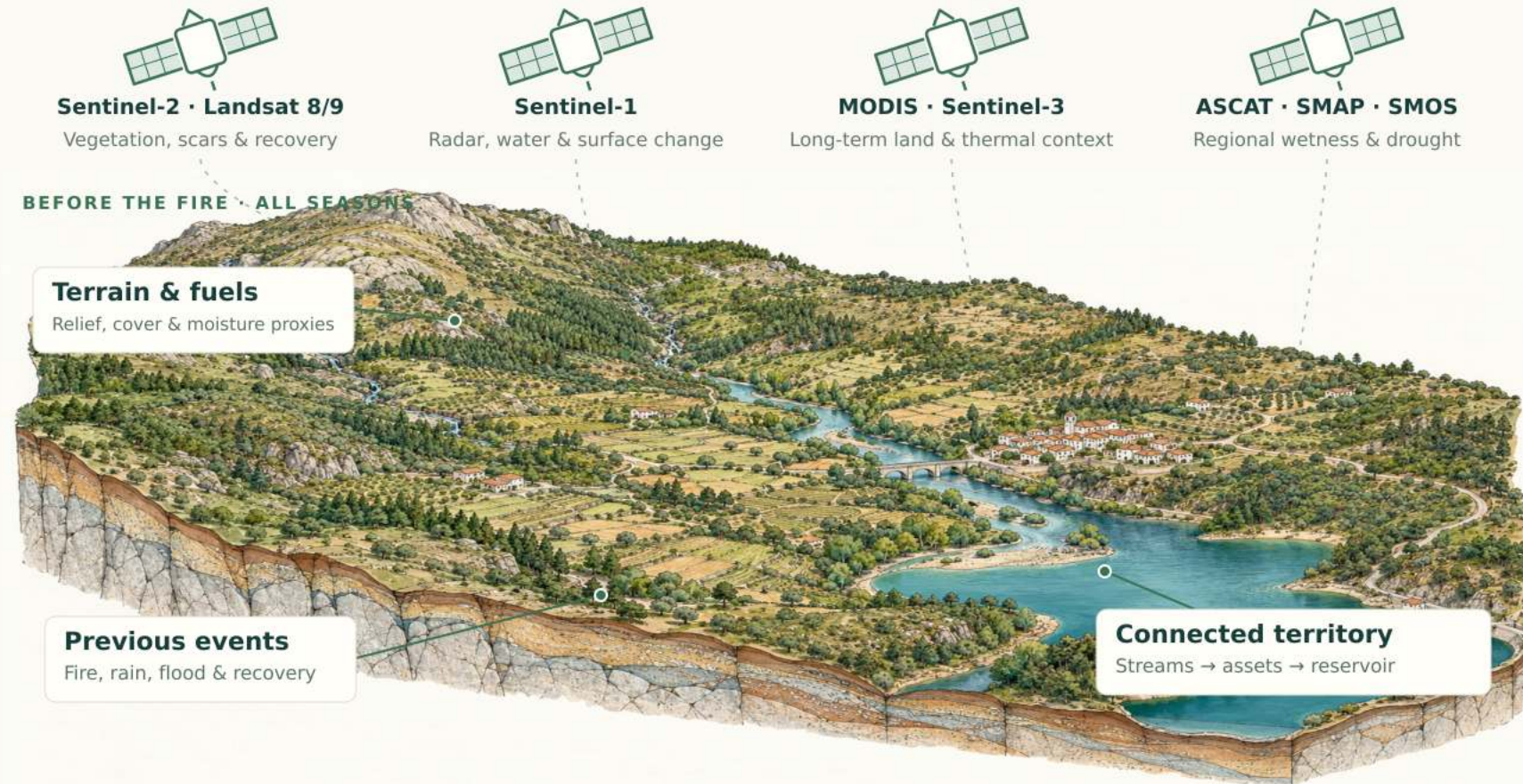


History becomes a living base map

Build a memory of the landscape — and update it as new evidence arrives.



SERVICES & GROUND EVIDENCE

HLS · EFFIS archives · CLMS Burnt Area · Copernicus DEM

Local soils, hydrography & assets · EOX / DGT imagery backdrops

01 Living base map

02 Active fire

03 Post-fire change

04 Winter learning

05 Recovery & prevention

RISKA · AI / ML + DOMAIN MODELS

Observe → compare → update

1 Collect & align

Terrain, vegetation, soils, waterways and past events.

2 Compare over time

Separate seasonal patterns from unusual changes.

3 Keep the evidence

Source, date, quality and uncertainty stay attached.

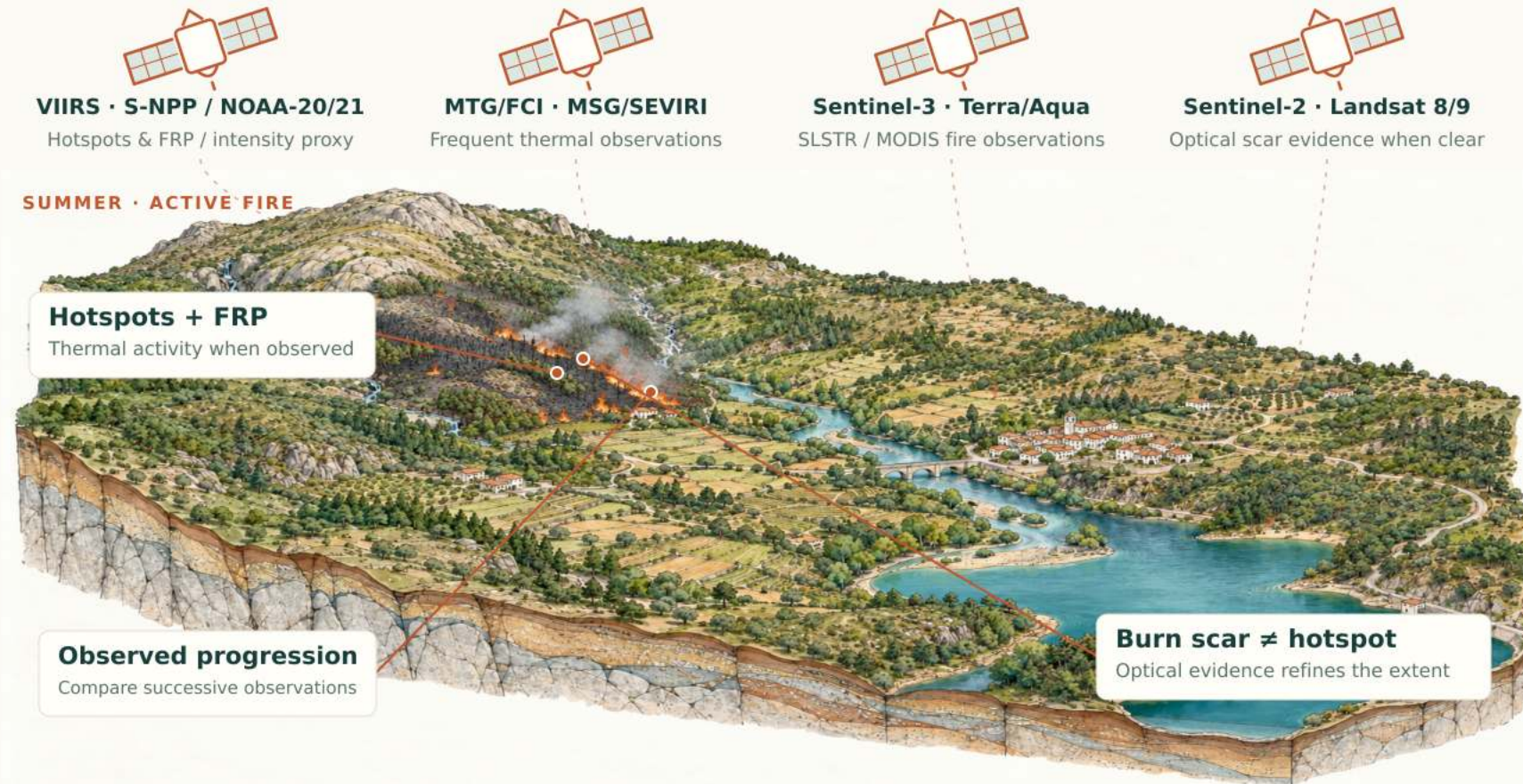
OUTPUT

A shared, evolving territory baseline

Updates follow valid observations.
Regional moisture is context, not a local soil measurement.

Record the fire as it unfolds

Combine thermal observations, activity progression and emerging burn scars.



SUMMER • ACTIVE FIRE

Hotspots + FRP

Thermal activity when observed

Observed progression

Compare successive observations

Burn scar ≠ hotspot

Optical evidence refines the extent

SERVICES & GROUND EVIDENCE

NASA FIRMS · LSA SAF FRP · EFFIS · HLS

Regional smoke: Sentinel-5P + CAMS · EUMETView: display / access

RISKA • AI / ML + DOMAIN MODELS

Observe → compare → update

1 Build an event record

Time-stamped hotspots, FRP and available optical scenes.

2 Separate the products

Observed activity, burn scars and modelled spread scenarios.

3 Check the gaps

Cloud, revisit time and sensor differences affect the record.

OUTPUT

An evolving fire record with source confidence

FRP is a thermal-activity proxy. It is not spread speed, fireline intensity or an exact boundary.

01 Living base map

> 02 Active fire

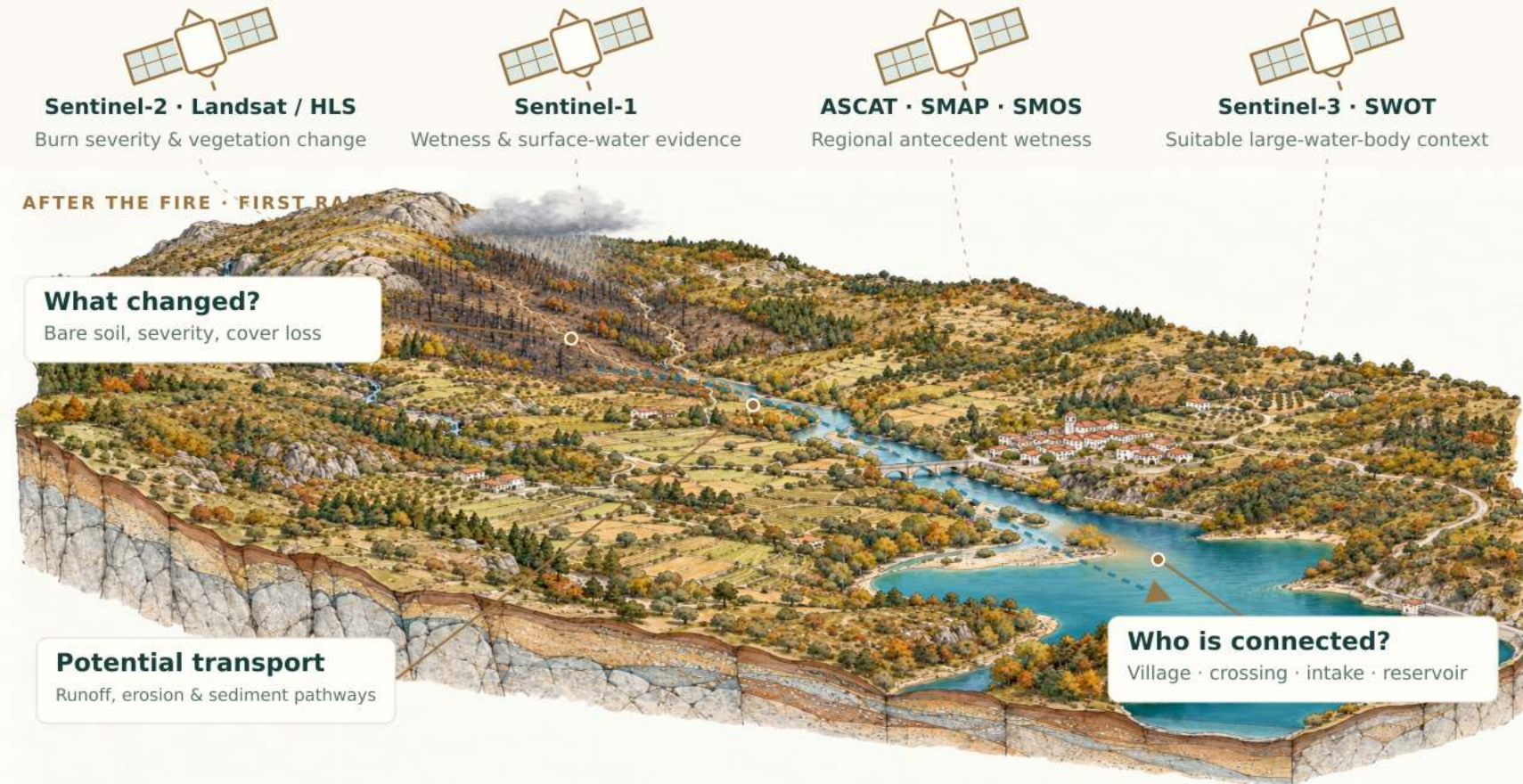
> 03 Post-fire change

> 04 Winter learning

> 05 Recovery & prevention

Read the changed catchment

Compare before and after the fire, then trace what connects to downstream places.



AFTER THE FIRE • FIRST RAIN

What changed?

Bare soil, severity, cover loss

Potential transport

Runoff, erosion & sediment pathways

Who is connected?

Village · crossing · intake · reservoir

SERVICES & GROUND EVIDENCE

HLS · EFFIS · CLMS Burnt Area · Copernicus DEM + hydrography
First rainfall + local surveys · Roads, villages, intakes & reservoir records

RISKA • AI / ML + DOMAIN MODELS

Observe → compare → update

1 Update the base map

Burn severity estimates,
bare ground and surviving cover.

2 Trace the connections

Terrain + drainage + soils
link scars to exposed receptors.

3 Target field checks

Inspect erosion signatures,
crossings and water intakes.

OUTPUT

A connected catchment and receptor watchlist

Spectral change is not a direct
measurement of soil damage.
Erosion and water quality need checks.

01 Living base map

> 02 Active fire

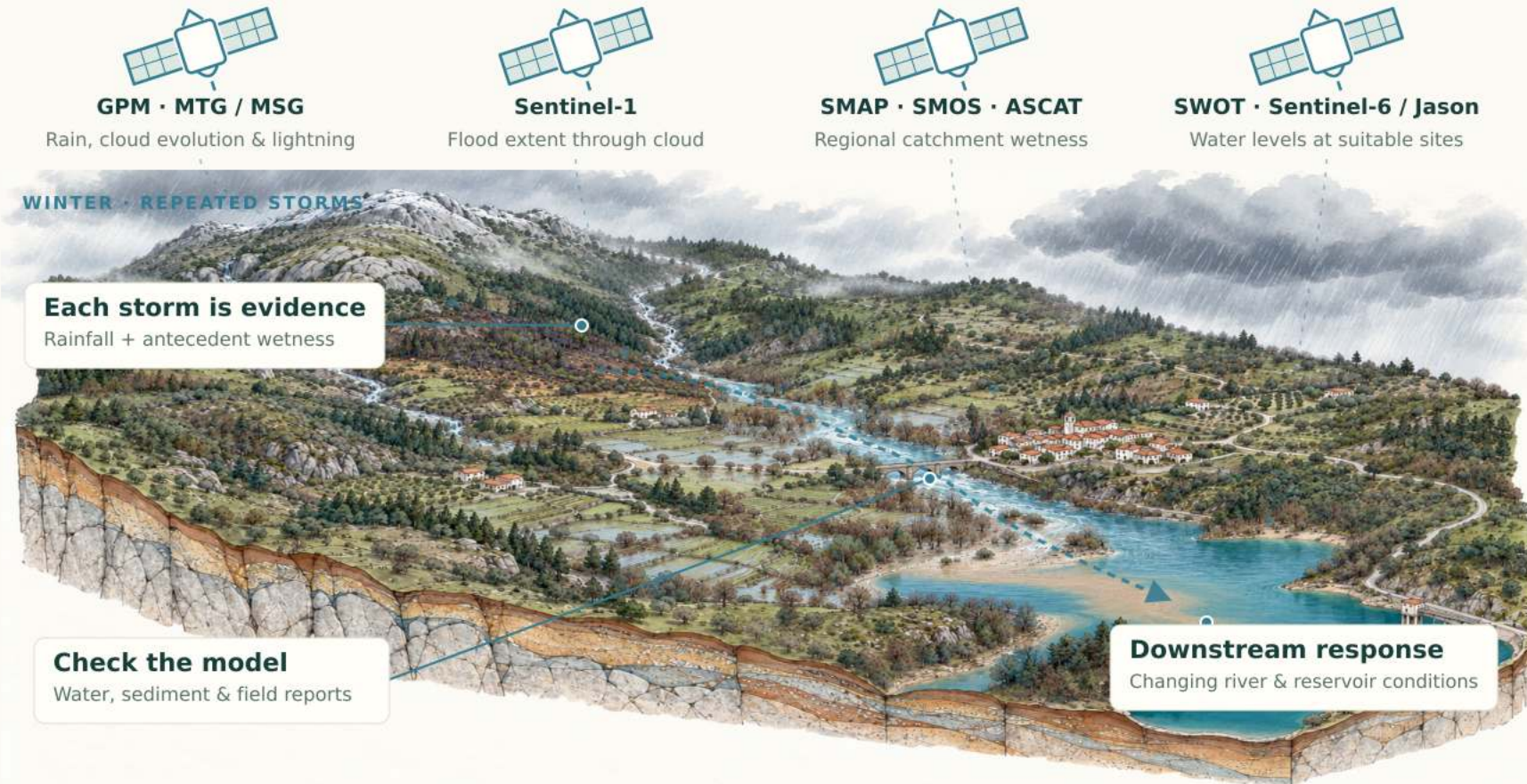
> 03 Post-fire change

> 04 Winter learning

> 05 Recovery & prevention

Learn from every rain event

Follow rainfall, wetness, flow and downstream effects through the winter.



SERVICES & GROUND EVIDENCE

IMERG • H SAF • Global Flood Monitoring • EFAS / GloFAS*

Sentinel-2 / Landsat / HLS updates • Local radar, gauges & reservoir operators

RISKA • AI / ML + DOMAIN MODELS

Observe → compare → update

1 Observe the event

Rain, ground wetness, flood extent and available water levels.

2 Model the response

Estimate runoff and sediment; track uncertainty at receptors.

3 Compare & update

Use gauges, imagery and reports to revise state and assess errors.

OUTPUT

An event-by-event catchment history

Satellites do not see every flood peak. Water levels need suitable passes; local gauges provide continuity.

01 Living base map

> 02 Active fire

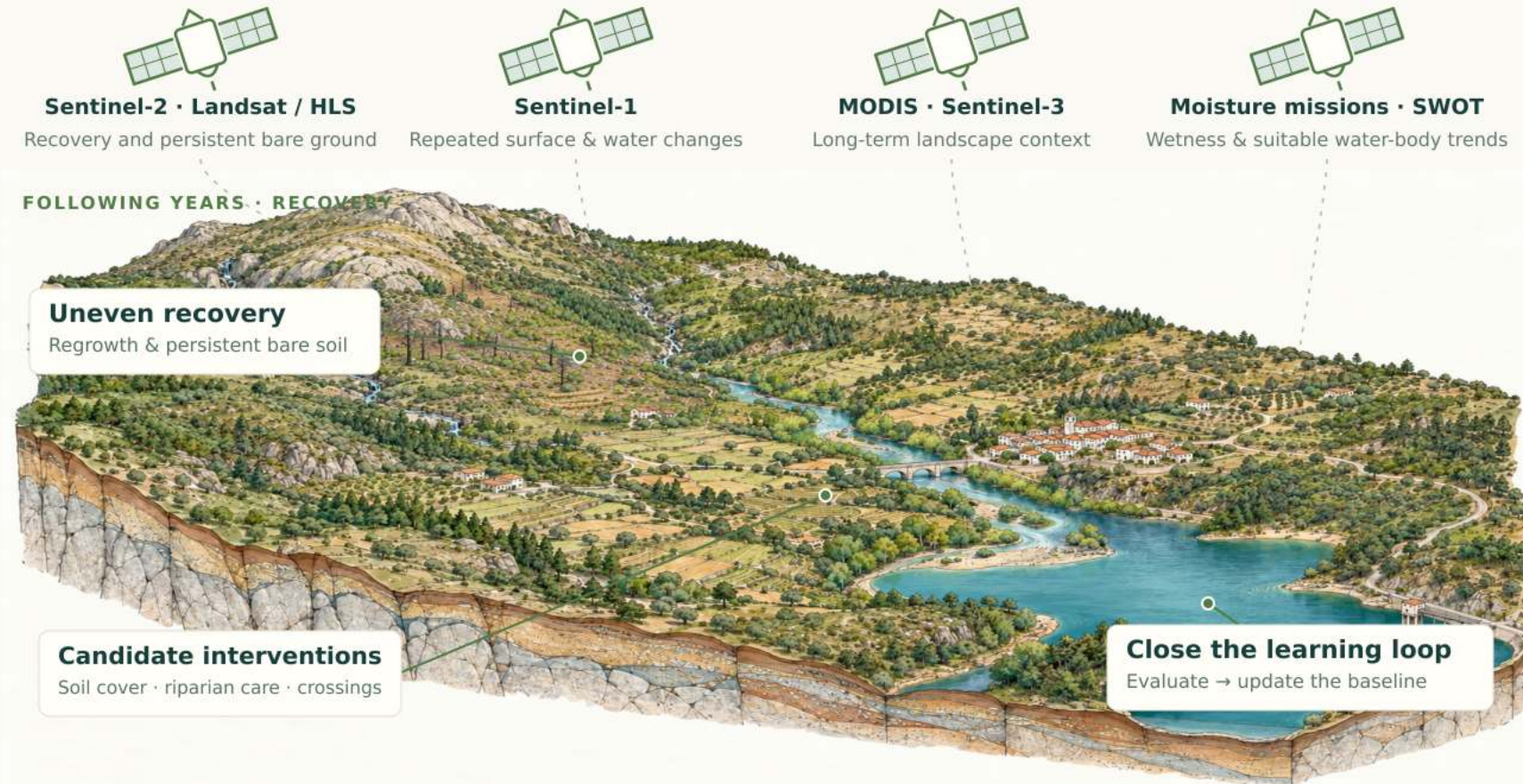
> 03 Post-fire change

> **04 Winter learning**

> 05 Recovery & prevention

Turn recovery into better prevention

Use multi-year evidence to test interventions and improve the next season's decisions.



SERVICES & GROUND EVIDENCE

Multi-year EFFIS / CLMS / HLS records • Rain & flood archives

Ground surveys • Intervention records • Community & operator observations

01 Living base map

> 02 Active fire

> 03 Post-fire change

> 04 Winter learning

> 05 Recovery & prevention

RISKA • AI / ML + DOMAIN MODELS

Observe → compare → update

1 Measure trajectories

Track vegetation indicators, repeated erosion and exposure.

2 Calibrate & evaluate

Test against independent events and documented interventions.

3 Plan with local experts

Compare feasible actions, costs, uncertainty and outcomes.

OUTPUT

Evidence-led prevention and intervention priorities

Greening is not full ecosystem recovery. Suggested actions require local review; benefits must be tested and measured.