

Physical Climate Risk at EnBW

How we assess the resilience of our assets to a changing climate

Sustainability | EnBW | July 2026

Anchored in recognised standards: ESRS E1 and EU Taxonomy

Climate risk can be a material financial risk. Our physical-risk methodology feeds three pillars of EnBW's climate disclosure - aligned with **ESRS E1 (CSRD)**.

Governance

Board oversight
(Group reporting)

Strategy

Scenario analysis
& resilience

Risk Management

Assets-level risks identified,
quantified,
prioritised and monitored

Metrics & Targets

Financial effects

Governance and net-zero targets: see [EnBW Annual Report 2025](#) (sustainability statement, ESRS E1) and [EnBW Climate Transition Plan](#). Methodology details: [EnBW ESG Factbook 2026](#) ("Managing Physical Climate Risks").

EU Taxonomy and assurance - Our climate risk and vulnerability assessment follows the EU Taxonomy requirements (Appendix A - DNSH criterion 'climate change adaptation'). Results feed EnBW's sustainability statement under ESRS E1, which - including the EU Taxonomy disclosures - is subject to external assurance.

How we assess physical climate risk: Hazard x Exposure x Vulnerability



Climate hazard

Identification of relevant climate hazards



Exposure

Localisation of physical assets
Data per individual site



Vulnerability

Link between hazard intensity and expected damage
Per asset type, location and protection



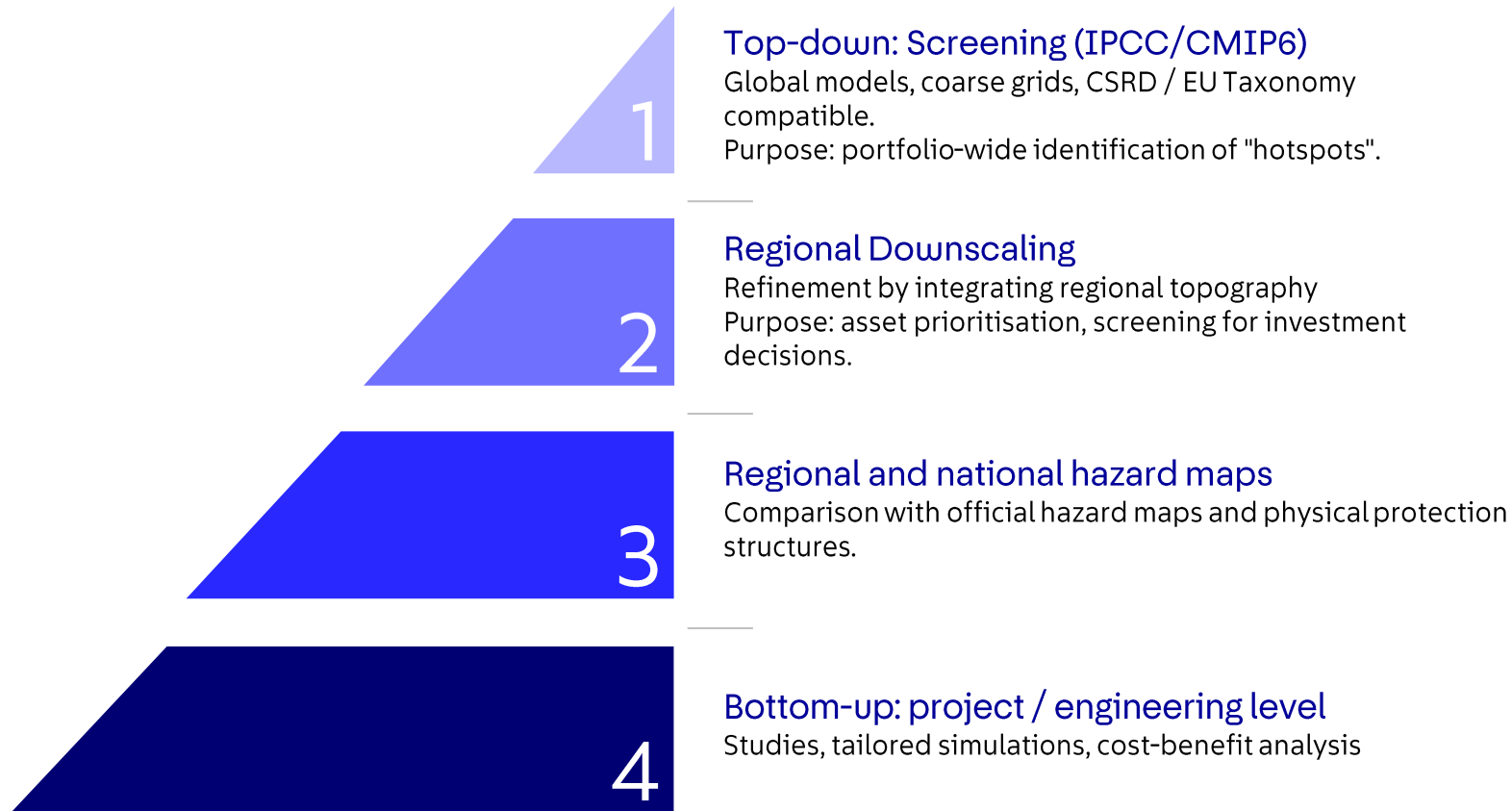
Risk

Direct physical damage and business interruption

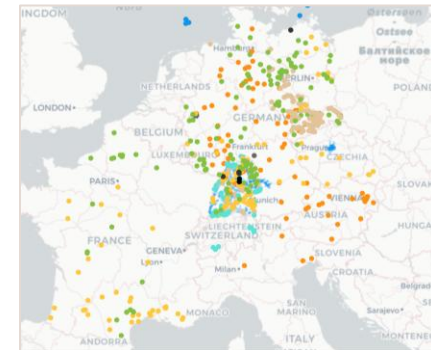
$$\text{Hazard} \times \text{Exposure} \times \text{Vulnerability} = \text{Risk}$$

Every site screened individually - depth of analysis scaled to materiality. We act first where heat, heavy rain or low water become critical.

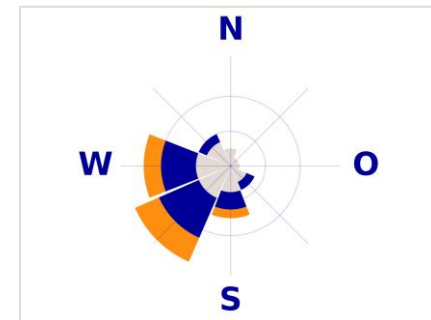
Top-down approach for strategy – Bottom-up for concrete adaptation measures



Strategic prioritisation



Technical design

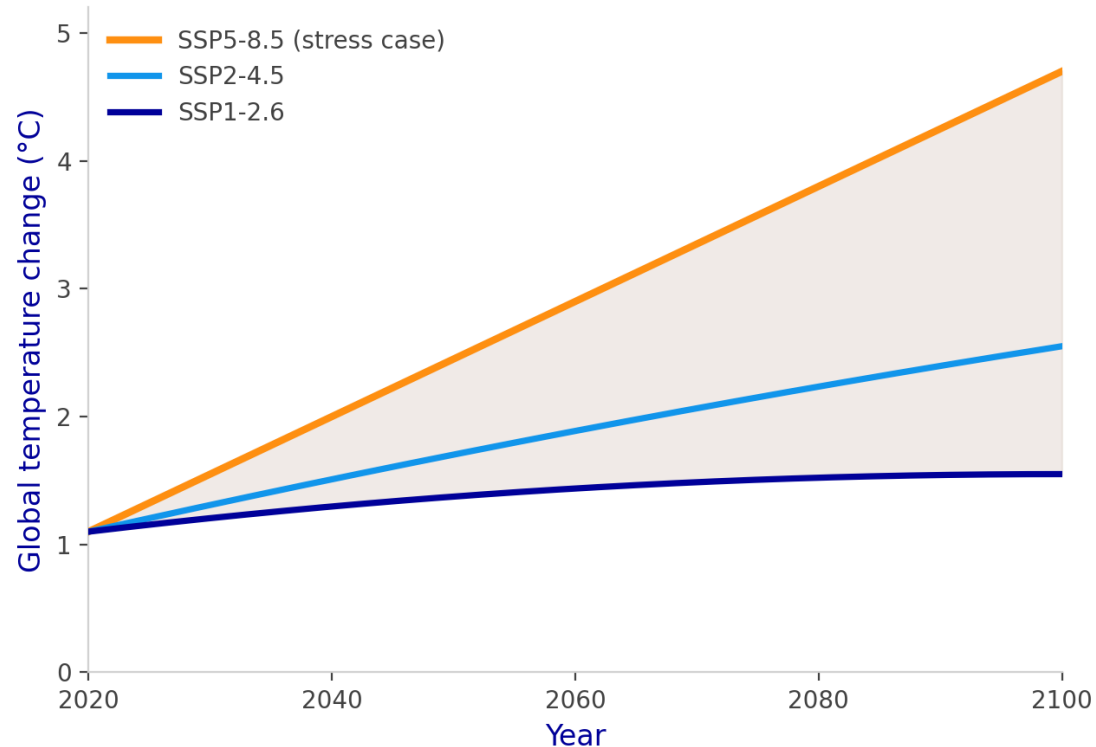


e.g.: wind rose diagram for wind farm



Climate risk starts with scenarios: We test against the stress case

Emission pathways drive climate scenarios



Schematic illustration (IPCC SSP / RCP, CMIP6).



We use IPCC scenarios (SSP / RCP) from CMIP6 climate models, spanning optimistic to pessimistic emission pathways.

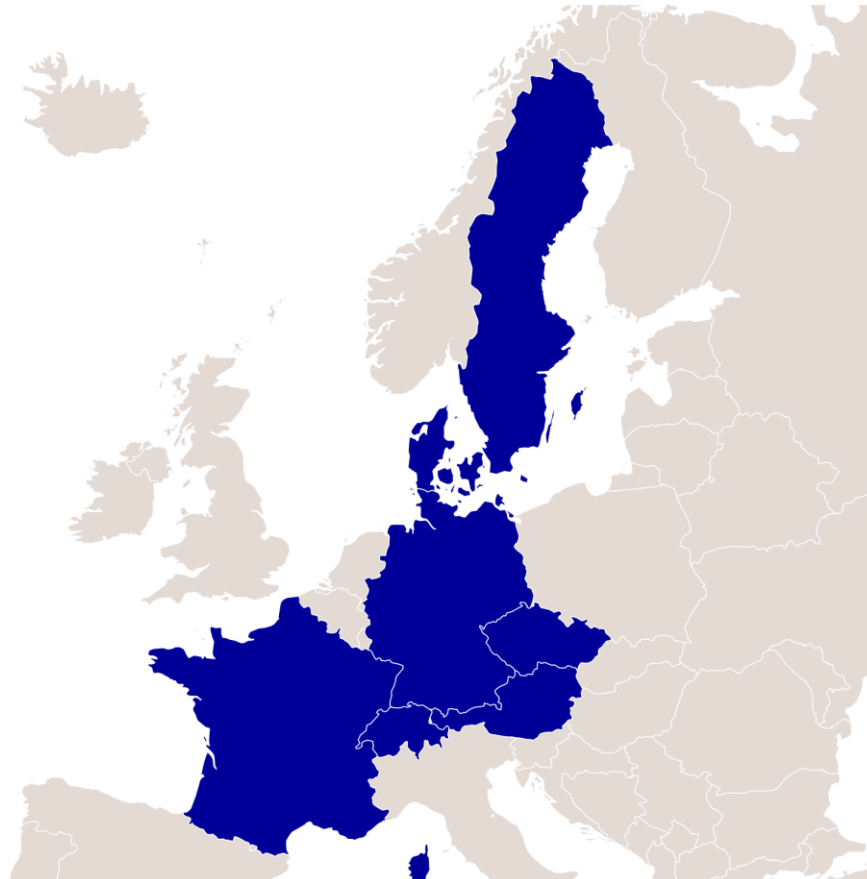


For asset-level risk assessment we take a conservative view and stress-test against the high-emission pathway; investment analysis draws on a scenario mix.

Scenario-based modelling - not forecasts.

Scope: EnBW's own assets.

Applied across the portfolio: more than 2,000 sites assessed to date



Source: EnBW internal portfolio analysis, as of June 2026

Key Facts



> 2,000 sites (from power plants to grid substations and charging locations)



45,000 data points processed



15 asset categories (generation, grid, e-mobility)



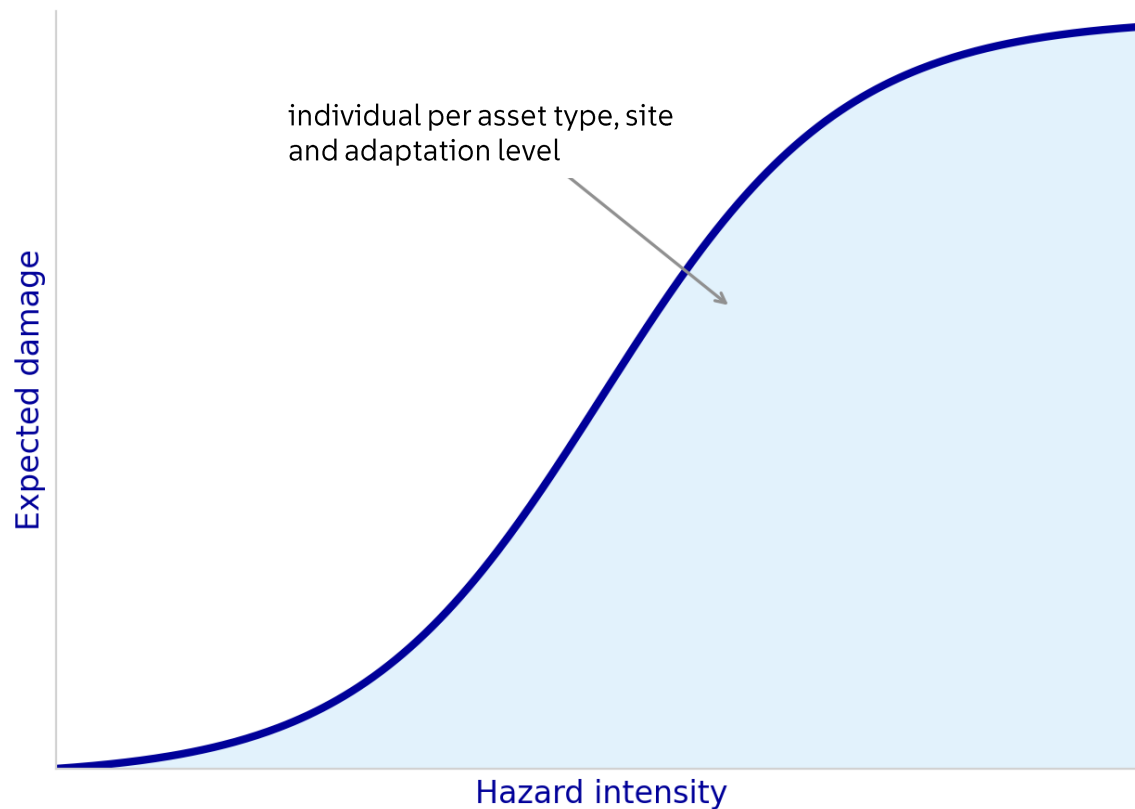
2020 – 2100 time horizon



3 climate scenarios modelled

From physical damage to an annual loss figure

Damage function (illustrative)



Illustrative - no real values.

Damage function - Relationship between hazard intensity and expected damage - individual per asset, site and adaptation level.

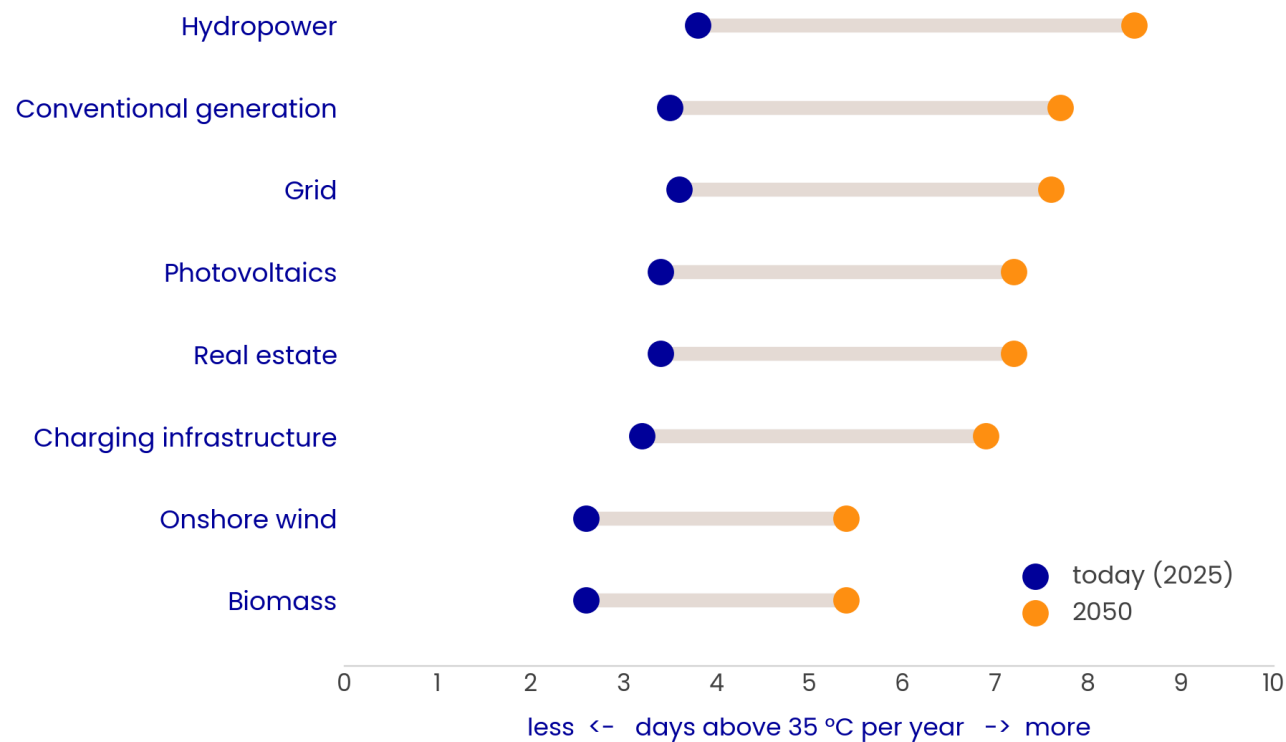
Return periods - e.g. HQ100 for flood.

Outputs - Expected Loss (EL) and Value at Risk (VaR), translated into financial terms.

Integrating site-specific asset attributes into damage functions enables a precise, ESRS-E1-aligned quantification of financial climate risk at portfolio level.

What comes out of it: heat days rise across all sites

Days above 35 °C in the stress case – today vs. 2050



Schematic illustration. "Stress case" = upper bound of climate models (95th percentile, CMIP6), median across sites per category. Scenario SSP5-8.5.



Trend:

Multiplication of thermal load across the portfolio.



Differences:

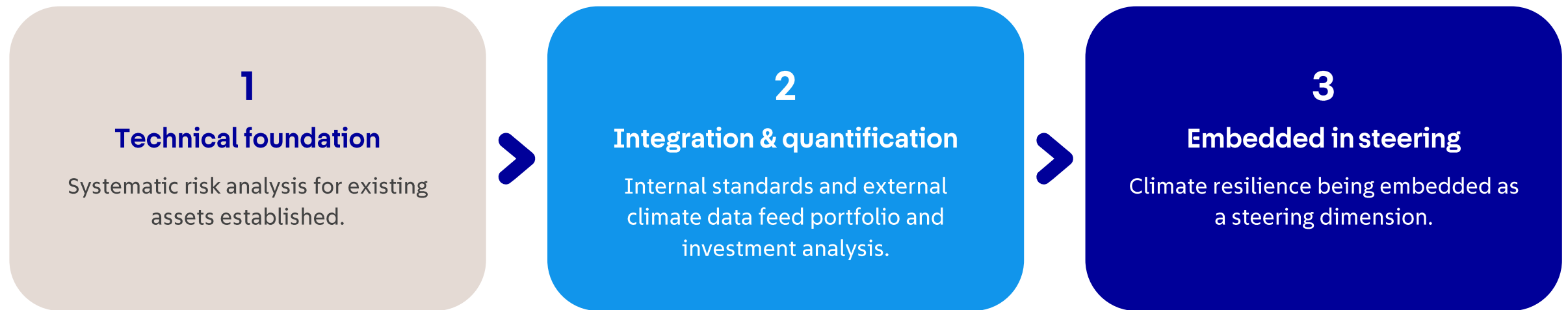
Asset types react with differing sensitivity - depending on location and technology.



Consequence:

We prioritize adaptation where exposure and sensitivity converge.

From technical analysis to financial steering



We turn climate science into decisions - prioritising resilience where it matters most.

Unless stated otherwise, figures in this presentation are based on scenario analyses and internal assessments; they are model-based illustrations and do not represent audited or assured reporting metrics.

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Climate Risk Management at EnBW

EnBW Energie Baden-Württemberg AG

More on sustainability at EnBW:

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Sustainability

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