



ASCENDI'S CLIMATE RESILIENCE PLAN

Find out how Ascendi is strengthening the climate resilience of its infrastructure.

Disclaimer

This Climate Resilience Plan has been developed based on the best assumptions and knowledge available at the time of publication. However, we recognise that these may evolve as a result of uncertain factors and contingencies beyond our control. Accordingly, we acknowledge that its implementation does not depend solely on Ascendi's actions, but is also contingent upon the strategic alignment of multiple stakeholders.

“These are challenging times. Climate change is an undeniable reality, with increasingly visible impacts on our lives, our communities and the infrastructure we manage. As a company operating in a climate-vulnerable sector, we have a responsibility to anticipate, innovate and act.

For more than two decades, we have been working to **create sustainable value for our stakeholders. The continuous improvement of our performance enabled us, in 2025, to achieve first place in the GRESB ranking**, with the maximum score, a clear sign of our **commitment to sustainability**.

Against this backdrop, we present a key milestone for the future of Ascendi and for the mobility infrastructure sector: our **Climate Resilience Plan**. The result of rigorous work carried out in partnership with the University of Aveiro, this plan sets out clear and demanding conclusions.

Bernardo Serafim

Chief Operating Officer (COO) of Ascendi



We are experiencing rising annual temperatures, an increased risk of wildfires, reduced precipitation and a growing intensity of extreme weather events. These phenomena result in significant challenges for the safety, operation and maintenance of the road network.

The Plan anticipates both physical risks and transition risks. We have integrated these challenges into our **risk management model, strengthening transparency and our ESG commitment towards our stakeholders.** However, this Plan goes beyond words. Through nine strategic measures grounded in **innovation, digitalisation and operational efficiency, we ensure that Ascendi is prepared to respond effectively to climate challenges.**

This Plan is not an end point, but a starting point. **It represents a commitment to the future, to the communities we serve and to the planet we seek to protect.** It is also an invitation to collaboration with partners, authorities, academia and civil society because only through collective engagement **can we turn climate challenges into tangible results."**

Bernardo Serafim

Chief Operating Officer (COO) of Ascendi

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01

Who we are



Comprehensive Vision



25 Years of Experience

Ascendi is recognised for its extensive expertise in the management, operation and maintenance of road infrastructure and tolling services, backed by 25 years of proven experience.



A European Reference

Ascendi covers the entire spectrum of traditional road O&M activities and is a European benchmark in the operation of fully electronic tolling systems.



Reliable and continuous customer support

Ascendi adopts a 360-degree approach to customer needs, delivering reliable and continuous customer support through a wide range of available contact channels.



A leading company in the sector

Ascendi is a leading asset management company, with majority stakes in six road concessions in Portugal and equity interests in two additional concessions in France and Spain.

Business Areas

Customer Service

- ▲ Interconnected channels
- ▲ Online and offline, combining digital solutions with human-assisted channels

Operation and Maintenance

- ▲ Road Operation and Maintenance
- ▲ Intelligent Transport Systems (ITS)
- ▲ Maintenance Management

Asset Management

- ▲ Control of six road concessions (Portugal)
- ▲ Equity interests in two concessions (France and Spain)
- ▲ Provider of O&M and toll collection services

Toll Collection

Know-how in the following collection systems:

- ▲ Exclusively electronic toll collection (AET – MLFF System)
- ▲ Traditional toll collection (open or closed systems)

Ascendi Network – Portugal

6

Road
Concessions

627 km

Operated by
Ascendi

2

Offices

6

Operational
Centres



02

Our **Climate Resilience Plan**





Why is it important?



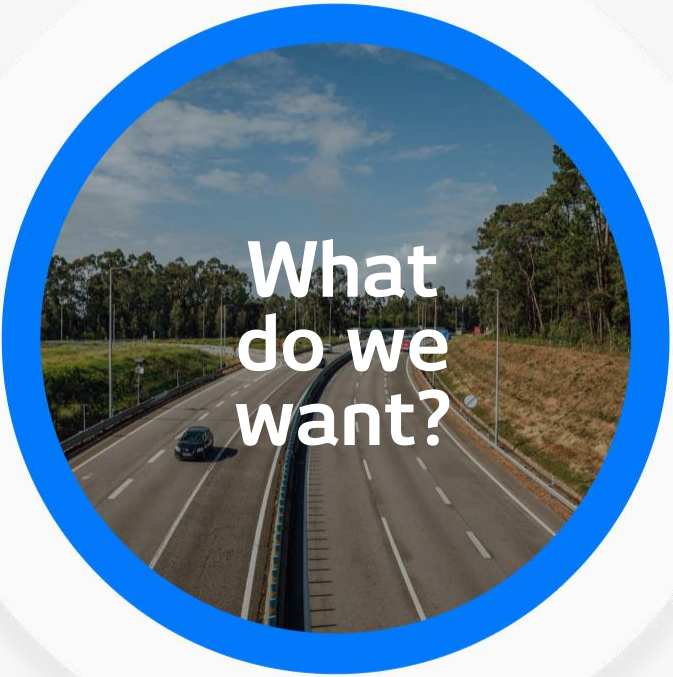
The **road infrastructure** sector is vulnerable to the impacts of **climate change**.



Climate resilience is essential to the financial **sustainability** and **competitiveness of organisations** that **depend on physical assets** and **deliver essential services**.



Ascendi needs to be prepared to respond to present and future climate **challenges, strengthening confidence in the infrastructure** it manages.

A circular inset image showing a multi-lane highway stretching into the distance under a blue sky with scattered clouds. A single car is visible on the road. The image is framed by a thick blue border.

What
do we
want?

To equip Ascendi with a **strategy** and the necessary mechanisms to strengthen the **climate resilience** of its infrastructure.

03

Climate **Risk** **Assessment**



01

Climate Risk Assessment

A detailed assessment of climate impacts on road mobility infrastructure

Climate characterisation

Identification
of vulnerabilities

Risk assessment

Reference climate period and future climate period
Future climate scenario RCP8.5 (IPCC), reflecting the most severe impacts

Climate simulation (current and future)
Cross-analysis of climate data with the geographical location of concessions
Integration of data into Ascendi's GIS platform

Data collection (2001–2024):

Climate events and occurrences across infrastructure

Integrated analysis with climate projections (current and future), on a per-concession basis

Physical risks
=
Impact magnitude
×
Probability

Climate data
(current and future)

Assessment of current
and future vulnerabilities

**Map of physical risks,
transition risks
and opportunities**

02

Climate Resilience Plan

Identify **climate change adaptation and mitigation** measures to enhance the efficiency, resilience and sustainability of operations

09

Mitigation and adaptation measures

Physical Risks



Wildfires



Heavy
precipitation



Rising
temperatures



High
winds

Transition Risks



Increases in
energy prices



Climate policy
constraints



Advances in
low-carbon technologies



Insurance and
financing



Changes in
market preferences



Emerging
legal risks

Opportunities



Self-generation of electricity
from renewable sources



Energy Efficiency



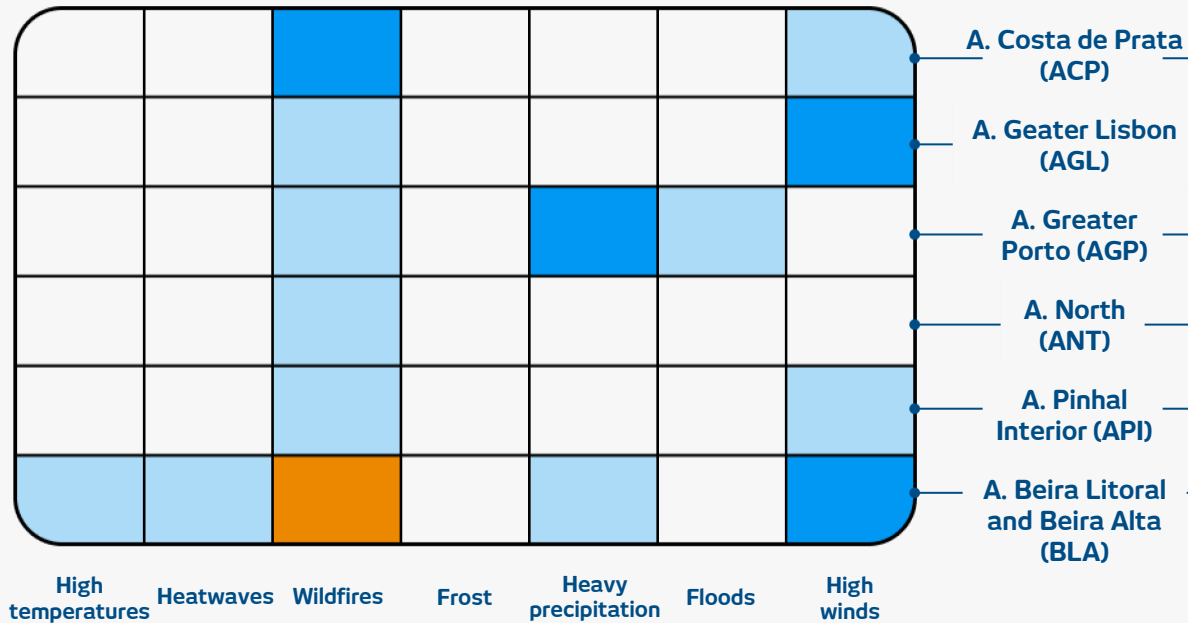
Access to investment

Overview of current and future physical risks, on a per-concession basis

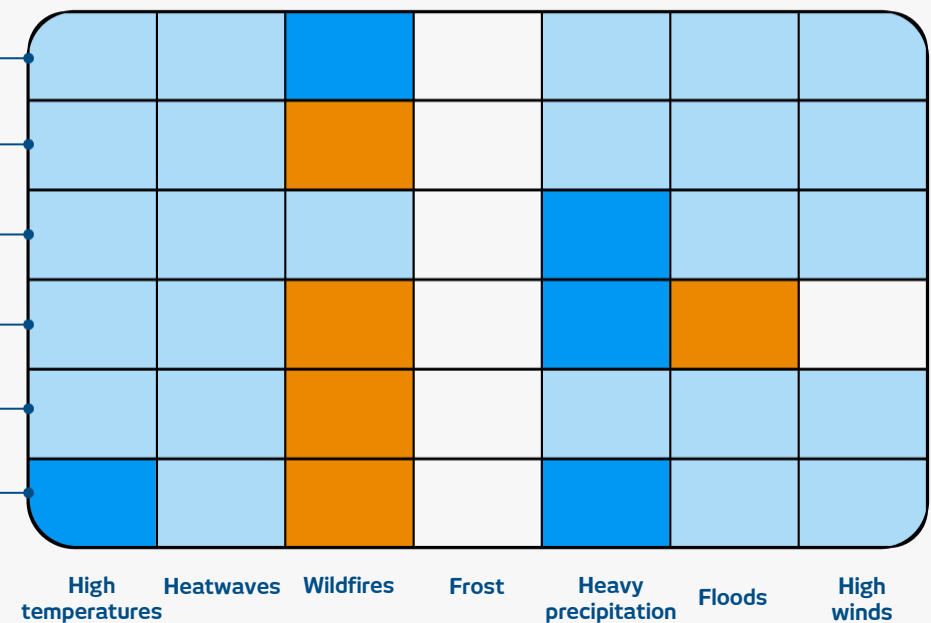
Risk Level



Current Climate Risks



Future Climate Risks



Key conclusions

Worsening of climate risks in the future compared to the current situation, with the exception of frost risk;

Wildfire risk shows the **greatest increase across all concessions**;

Future critical risks are concentrated, in most concessions, **around two climate hazards: wildfires and flooding. These risks are followed by the risk of heavy precipitation**;

Although high wind risk is classified as moderate in the future, **projections indicate an increase in the severity of extreme storms, suggesting that this risk cannot be disregarded**;

The Beira Litoral and Beira Alta (BLA) concession is the Ascendi asset most exposed to multiple risks, followed by North (ANT) and Greater Lisbon (AGL);

The Greater Porto (AGP) concession (primarily exposed to heavy precipitation), as well as Costa de Prata (ACP) and Pinhal Interior (API) (mainly exposed to wildfires), also show **greater geographical susceptibility to future climate risks**.

04

Mitigation and Adaptation Measures



We have defined priority climate resilience measures in line with international best practices. The following actions are outlined:

Measure 01

Prioritise resilient materials

Performance requirements: definition of material characteristics to withstand high temperatures and the implementation of resilient design strategies

Materials assessment: prioritisation of options that are resilient to temperature variations and incorporate recycled materials



Measure 02

Early warnings for users

Sensors and real-time monitoring: deployment of AI and IoT solutions for early detection

User notifications: integration with navigation platforms and other alert systems

Emergency response: ensuring effective coordination with relevant authorities in critical situations



Measure 03

Monitoring of drainage systems

Integration of advanced monitoring technologies: use of AI and IoT systems to monitor water levels in real time

Enhanced inspection and maintenance: implementation of routine inspection and cleaning procedures for drainage systems in areas with a higher risk of heavy precipitation



Measure 04 Forestry Management

Minimising wildfire risk: automated issuance of daily fire risk alerts, enabling adjustments to operational planning

Road safety: implementation of measures to reduce the risk of falling trees

Adoption of predictive wildfire evolution models



Measure 05 Protection against Wind

Assessment of impacts on assets and safety: verification of structural integrity and the condition of signage

Technological solutions: deployment of real-time monitoring sensors to detect wind variations and support alerts and operational adjustments



Measure 06 Decarbonisation

Efficient lighting: replacement of existing lighting with LED systems

Renewable electricity: use of electricity from renewable sources

In-house fleet: transition to electric or low-emission vehicles across operation and maintenance activities



Measure 07

Adaptation of Maintenance Plans

Adjusted maintenance plans: considering climate risks

Team safety: adaptation of working schedules during extreme heat, adequate hydration, and appropriate use of PPE

Emergency response: preparedness of teams to manage extreme events



Measure 08

Climate Risk GIS Platform

Georeferenced recording of affected infrastructure: precise location data supporting analysis and operational response

Climate monitoring: continuous monitoring of extreme events

Team capacity building: enhancement of risk identification and management capabilities

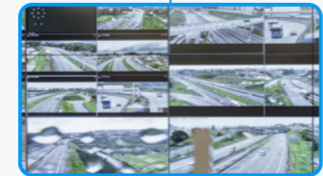


Measure 09

Vulnerability Monitoring

Continuous monitoring of vulnerabilities: ongoing assessment of vulnerabilities to climate risks

Dashboard development: ongoing assessment of climate exposures and risks



05

Final Message



Ascendi's Climate Resilience Plan...

...is not merely a response to risk; it represents a strategic **opportunity for innovation, efficiency and sustainable leadership**

Conclusions



Climate resilience is a strategic priority, essential to ensuring operational continuity, safety and sustainability of transport infrastructure



Investing today in adaptation and mitigation reduces future costs, helps prevent operational losses and strengthens long-term competitiveness



Action reinforces leadership – it demonstrates robust climate governance and a strong commitment, positioning Ascendi as an active agent in the transition



Driving the Future

