

Deliverable 7.3: Beta version of digital handbook available within the project for review

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* R=Document, report; DEM=Demonstrator, pilot, prototype; DEC=website, patent filings, videos, etc.;

OTHER=other

** PU=Public, CO=Confidential, only for members of the consortium (including the Commission Services),
CI=Classified

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Executive Summary

The [beta version](#) of the ASPECT Digital Handbook, available for internal review in December 2025, focuses on the conceptual structure, editorial approach, and content direction, with functionality and full content development planned in subsequent phases. Designed to either inform, engage or support policymakers, businesses, and civil society, the handbook aims to translate ASPECT’s scientific outputs into an accessible, narrative-driven format, illustrating how seamless climate predictions can inform decision-making. This beta release captures the intended structure of the handbook, a first selection of content, and examples of Super User contributions and datasets, which will be progressively expanded in the final version as the project develops. Feedback from project partners during the internal review will help refine content, usability, and design, while ensuring the handbook aligns with the needs of its diverse audience.

1 Introduction

1.1 Context

As part of “Exploitation activities” (Task 7.6) of the project, the ASPECT Digital Handbook is conceived as an editorial product that guides diverse stakeholders through the emerging environment of seasonal-to-decadal climate predictions and projections developed within the project. Its purpose is to offer a clear, accessible, and engaging space where users can explore how climate information is produced, what it means for their decisions, and how it can be used to support adaptation across multiple sectors. Additionally, the Handbook and the project’s website are designed to complement each other, with the Handbook making the website’s resources more accessible.

Structured as a flexible digital platform, the handbook integrates multimedia formats - videos, interviews, maps, infographics, narratives, and simple data visualisations - to create an intuitive and customisable experience for audiences with varying levels of expertise.

Responding to the objectives defined in the project’s Grant Agreement, the handbook provides a non-technical overview of the transformation of climate data into useful information, insights and intelligence for potential users, related to the Super Users’ sectors of interest and beyond. It incorporates scientific explanations from the production chain of seamless predictions (WP1 and WP3) and practical examples drawn from co-developed case studies in WP4. Its mission is to translate complex prediction science into intelligible and actionable narratives, illustrating the value of climate insights for planning, anticipating risks, and enabling more adaptive decision-making.

User engagement is a foundational element of ASPECT and shapes the rationale of the Handbook. In this sense, the co-development with Super Users in WP4, broader interactions through the multi-sector user forums in WP5, and cross-cutting communication and exploitation activities in WP7 ensure that the handbook reflects real decision processes and practical needs.

A range of different audiences with varying levels of expertise in using climate information will engage with the Digital Handbook, each with distinct needs and expectations, as summarised in *Table 1*. The range reflects the diversity of ASPECT stakeholders, spanning multiple sectors and decision contexts, and informs the handbook’s design, navigation, and content choices. Within these groups, the project spans a number of key socio-economic sectors - including agriculture, finance, governance, energy and water - and addresses interests across multiple timescales (seasonal, decadal and longer term).

D	Digital Handbook to new data workflows (non-expert decision makers, adaptation practitioners)	A digital environment available through the project website to support stakeholders in applying the results of the project in diverse socio-economic sectors and contexts (<i>>200 unique visitors</i>)
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Table 1. Key target groups in the Digital Handbook (source Grant Agreement, pp.. 69)

In addition to supporting the project website, the Digital Handbook enhances transparency around the methods, workflows, and scientific developments in the project, offering the wider community and society a clearer understanding of how climate predictions are generated and used. By providing a

digital environment accessible through the ASPECT website, it aims to help stakeholders apply project results in different socio-economic contexts, with a target of at least 200 unique visitors.

The development of the Beta Version of the Digital Handbook began in January 2025. The final version is planned for release in the second half of 2026 and will serve as a long-lasting reference bringing together scientific outputs with user needs and experiences. It will be linked to the [ASPECT project's dataset](#) repository, which includes a catalog of climate prediction and projection data across multiple timescales, from seasonal forecast datasets (e.g. daily and sub-daily seasonal forecast variables and pressure-level data) to multi-annual and decadal prediction outputs. The Digital Handbook will be regularly updated and implemented to reflect the ongoing progress and advancements generated throughout the project's lifecycle. It will remain available online for five years after the end of the project. The purpose of D7.3 is to provide a beta version of the Digital Handbook that exhibits its structure and initial content. This deliverable is intended for internal review by project partners, who can provide feedback or contribute additional relevant information. The beta allows partners to explore the handbook and preview the layout, navigation, and initial materials, including early examples of scientific content, datasets, and Super User contributions, until the official release of the product.

1.2 Scope of the Beta Version

The Beta Version represents an initial iteration of the handbook. While the overall architecture, navigation, and initial content are in place, some components remain as placeholders and will be expanded in later iterations. Videos of Super Users, additional datasets, and narrative content, such as short case-study stories and contextual explanations, are examples of elements that will be progressively integrated. Temporary images, example plots, and draft sections illustrate the potential layout and user experience but are not definitive, ensuring that partners can provide input to guide the production of the final version of the Handbook.

The [Beta Version](#) shared with the consortium has been developed on the Figma platform, a widely used tool for web interface design due to its collaborative, cloud-based nature. Figma enables designers, developers, and stakeholders to work simultaneously on the same project, streamlining the transition from concept to interactive prototype. Through reusable components, shared libraries, and design systems, it ensures visual consistency and accelerates the workflow. Additionally, its code-inspection features simplify communication with development teams, supporting a smooth handoff from design to the final product.

2 Overall Structure of the Digital Handbook

2.1 Architecture and Navigation

The handbook is designed as a single scrollable page with a fixed background, creating a seamless browsing experience without conventional scrolling breaks. This layout allows users to navigate through the content smoothly while keeping key visual elements in view, enhancing engagement and readability. The structure provides clear pathways to all sections, ensuring that users can easily access introductory material, scientific explanations, production chain infographics, applications, and case studies.

The first section introduces the ASPECT project, its goals, and the intended audiences. Through short texts, images, and insights derived from Deliverable 5.3, [*“Analysis of how climate information and knowledge can help organisations prepare for the physical risks of a changing climate”*](#), it explains why subseasonal-to-decadal climate information matters and how the handbook fits within the broader ASPECT ecosystem. A brief glossary section will support users by clarifying key technical terms.

The second section focuses on the science behind climate predictions. Short videos, simplified explanations, and visual summaries guide users through core concepts such as initialization, prediction timescales, downscaling, and temporal combining methods (stitching, shadowing, merging). An infographic also illustrates the production chain of seamless predictions, showing how user needs, data selection, methodologies, and prototype development are interconnected to shape the scientific workflows.

The third block highlights the Super User case studies, demonstrating how ASPECT outputs translate into operational decision-making. Through concise narratives, quotes, and - where available - videos or tool demonstrations, these cases show how different sectors (agriculture, humanitarian response, regional governance) apply ASPECT information. This section serves as a legacy component, ensuring that future users can learn from these examples and understand the practical relevance of ASPECT tools for planning, risk management, and adaptation.

Together, these three blocks create a clear and intuitive journey: from understanding the project, to exploring its scientific core, to seeing how its insights are applied across sectors and geographies.

2.2 User-Focused Design Approach

The design emphasizes a user-centered experience that helps translate complex ideas into simplified ones for non-technical audiences, ensuring that policymakers, industry representatives, and civil society can understand climate information. This is achieved through intuitive navigation, simplified scientific explanations, and the use of multimedia elements - such as short videos, infographics, and example plots - that help break down complex concepts. Content is structured around real decision contexts drawn from Super Users, ensuring that policy makers, industry representatives, and civil society can understand how climate information translates into practical choices. Additional support elements, including a brief glossary and context-driven explanations, help users interpret technical terms and apply climate information.

2.3 Current Prototype

Screenshots of the beta prototype demonstrate the interface, layout, and preliminary content (Figure 1). Sections include introductory text on ASPECT, insights from organizational surveys (WP5), and previews of videos explaining scientific basis of climate predictions (WP1). Infographics illustrate the production chain of seamless climate predictions (WP6), while links to interactive tools developed within the project, such as the Codorníu Shiny App, ERA Explorer, Story-map components, and Jupyter notebooks, provide hands-on examples. Placeholders mark where future videos, datasets, and additional case study narratives will be inserted.

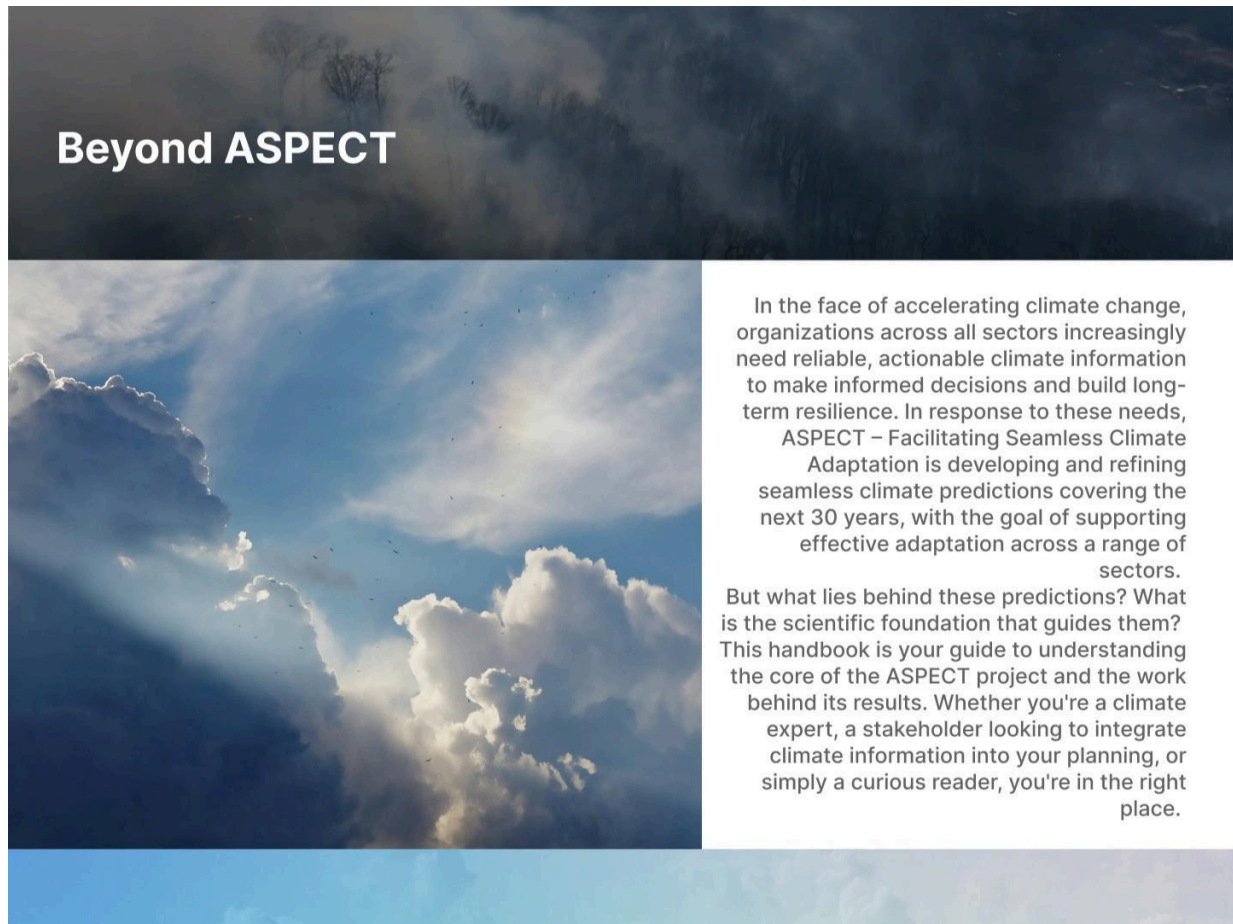


Fig. 1 *Digital Handbook Homepage*

3 Initial Content Overview

3.1 Preliminary Narratives

Initial narratives introduce the real-world relevance of climate information, presenting survey results on organizational climate risks, information needs, planning horizons, and barriers to using climate data. Case studies of Super Users, including Codorníu (from the grape and wine-producing sector) representatives from the selected 4–5 pilot regions enrolled in the EU Mission on Climate Adaptation, and the British Red Cross, illustrate practical applications.

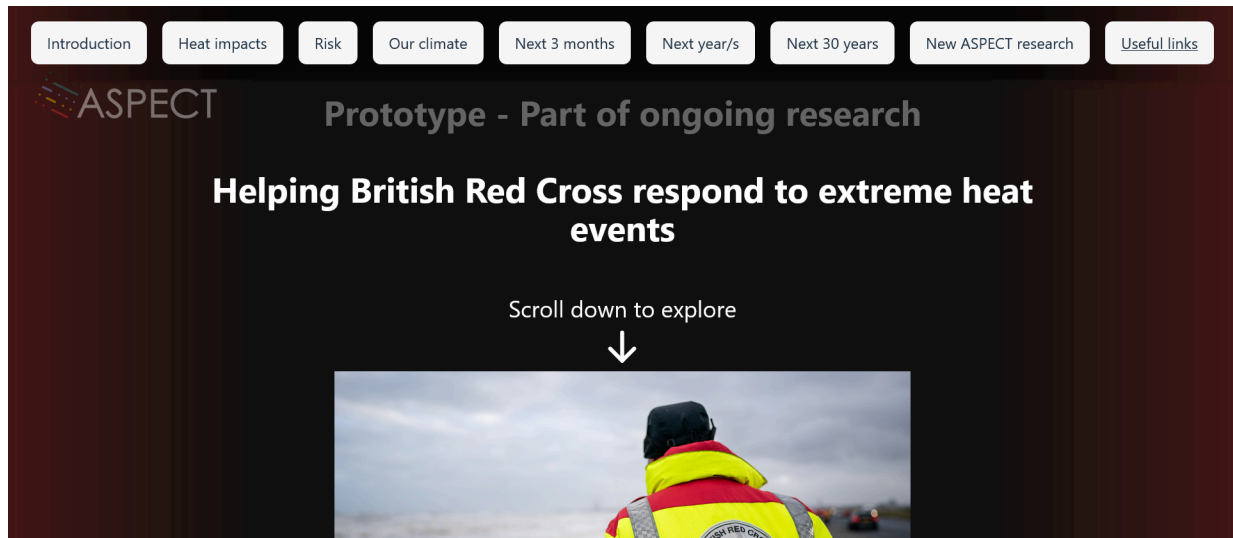


Fig. 2 An example of Super Users case study prototype

For example, Codorníu relies on ASPECT forecasts to manage spring frost and water availability, integrating these predictions into operational decisions. Similarly, the British Red Cross prototype created by ASPECT helps support the growth of climate-informed decision-making across the organisation, including risk assessment and operational logistics under climate uncertainty (Figure 2).

Short videos produced by WP1 researchers complement these narratives by explaining the scientific foundations of ASPECT's climate predictions, including initialization methods, prediction types and time scales, combining techniques, and downscaling methods, providing users with accessible insights into the methodology behind the seamless forecasts.

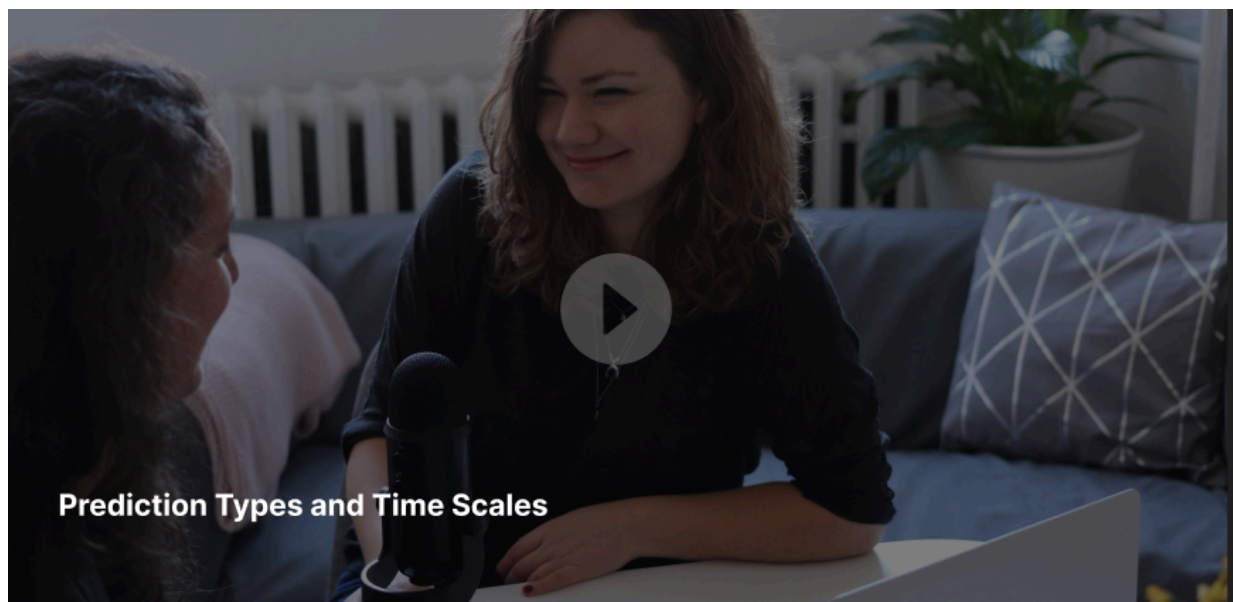


Fig. 3 Handbook Video placeholder

3.2 Example Plots and Data Visualisations

Visualizations highlight key survey findings, such as the prevalence of extreme heat and heavy rainfall events as organizational concerns, the planning horizons for critical decisions, and the types of climate information desired. These visual outputs include simple plots - such as frost-risk visualizations with guidance on interpretation - to ensure users can apply insights effectively. Some visualizations derive from targeted analyses for pilot users, including bulletins developed for Codorníu, while others are based on broader survey results and user feedback. Together, these figures provide a clear and accessible overview of complex climate risks and demonstrate how ASPECT data supports decision-making across sectors.

3.3 Super User Videos / Stories

Video clips and narratives featuring Super Users illustrate how seamless climate information will be used more in practice using solutions developed in the ASPECT project. These placeholders will later host content capturing users' experiences, challenges, and the solutions enabled by ASPECT. The narrative format follows a structured approach:

- organizational challenge
- ASPECT solution
- results

Each narrative will be enriched with supporting materials such as videos, quotes or screenshots.

3.4 Development in Progress

The draft sections included in this beta version define the conceptual and editorial framework of the Digital Handbook. They outline the scientific foundations of ASPECT, the high-level production chain of seamless climate predictions, and the types of tools and resources developed within the project.

At this stage, these sections mainly consist of descriptive text, structural placeholders, and illustrative examples (e.g. indicative sections for Super User contributions, example data plots, and initial infographics). Their purpose is to support internal review and discussion, rather than to present fully developed content or functionalities.

Subsequent phases will progressively expand these sections by integrating validated datasets, and multimedia materials, with the aim of enriching the handbook and improving user engagement in the final version.

4 Next Steps and Progressive Content Integration

4.1 Featured Super Users for the Digital Handbook

Super Users are practitioner stakeholders selected jointly with the case study leads to ensure sectoral relevance, diversity, and coverage across ASPECT application areas. The selection was carried out through discussions with WP leads, prioritising operational relevance, sectoral diversity, and the ability to articulate concrete decision-making needs under climate-related risks, rather than technical or climate expertise.

For the Digital Handbook, the initial confirmed Super Users include Codorníu from the grape and wine sector and the British Red Cross from the humanitarian sector, providing examples of how climate predictions relate to everyday operational constraints, risk management, and practical decision-making in these sectors. A third Super User, from the governance and regional planning sector (the Emilia-Romagna Region), will be added later to provide a complementary perspective on long-term climate risk assessment, strategic investment planning, and institutional decision-making.

4.2 Planned Datasets / Information for Beta Content

Datasets for figures included in the beta version are selected to be simple yet informative, demonstrating core functionalities without overwhelming users. These may include example plots for frost risk, water management, or other relevant indicators (WP4). Additional datasets will be progressively integrated as they become available through the ongoing work of the relevant WPs, reflecting the project's progress. Embedded links or widgets showcasing applications that share datasets in a user-friendly way are also a possibility (e.g. [ERA Explorer](#), [Thermal Trace](#)). The decision to include such elements will be taken during the upcoming development phases, based on their technical relevance for the selected Super Users and availability within the project lifespan.

As an example, the British Red Cross case study will include infographics about risk from heatwaves, a key climate information service for the user with implications for emergency response (see below). Another option is to feature ASPECT applications like the [ERA Explorer tool](#), which is a part of the climate information provided to the British Red Cross, helping emergency responders find information about the climate of the recent past in the local area where they work and understand the risk of extreme heat. Another application that can be included is the [Thermal Trace application](#), which also highlights heat stress likelihood globally.

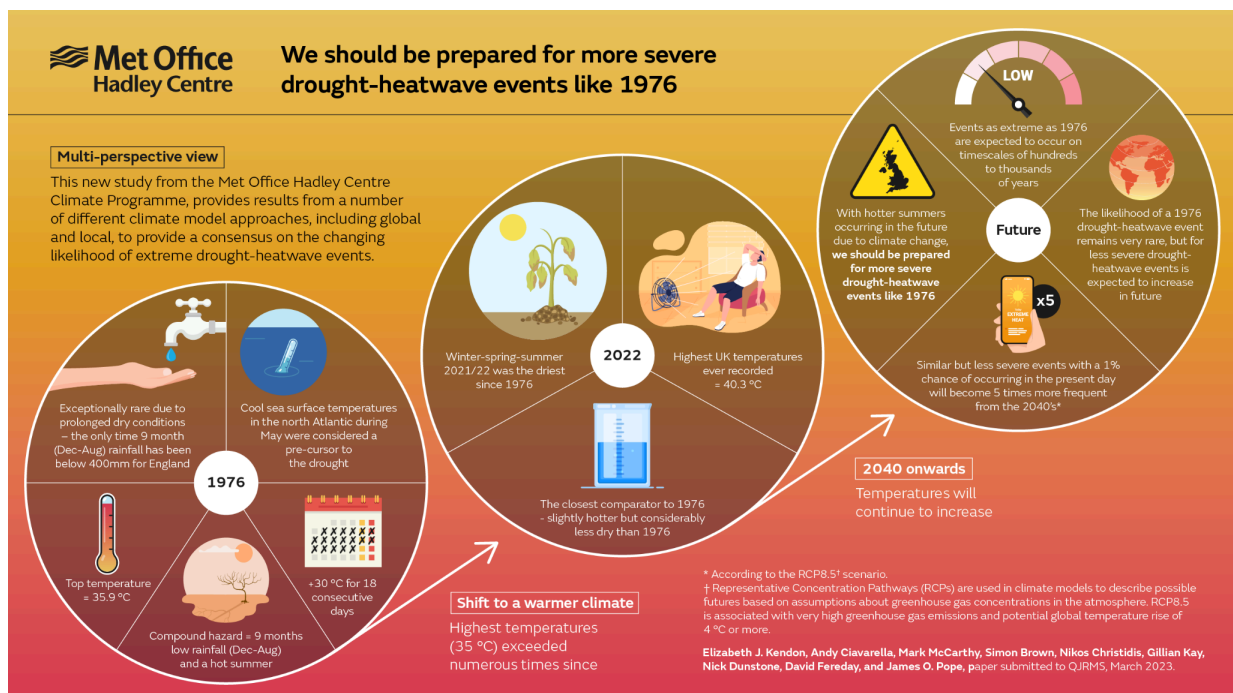


Fig. 4 Infographic on preparedness severe heatwaves (source: Met Office)

Global warming and future high-impact weather in the UK

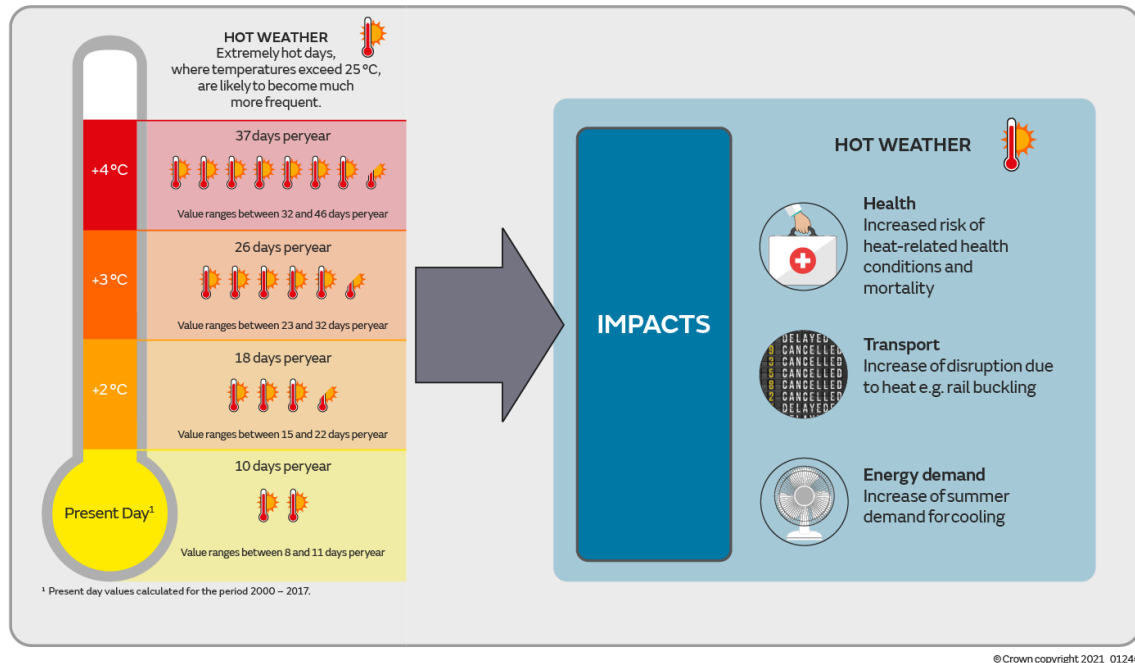


Fig. 5 Infographic - As global temperatures rise, the number of days the UK observes 25 °C or more will increase

4.3 Timeline for Internal Revision

The beta version is designed to provide a coherent initial experience while enabling progressive integration of content. Feedback from internal review will guide updates and additions, culminating in the final handbook, where various case studies and videos will be fully incorporated and the links to datasets and interactive tools developed within ASPECT will be provided. Monthly meetings with the other involved WPs are scheduled in 2026 to gather content for the Handbook and receive feedback on its development. The first “surfing” release is planned for March 2026, coinciding with the next User Forum, where the handbook’s structure will be shared and discussed with the Super Users. In line with the project’s progress, the first public release is expected at the beginning of the second half of 2026, in order to share it and collect feedback. Over the coming months, the Digital Handbook will continue to be developed and updated until the end of the project’s lifespan.

5 Outlook and future developments

The D7.3 Beta Handbook provides an initial, user-centred platform presenting a first selection of content, including draft scientific explanations, case study examples, and previews of interactive elements. Through the integration of multimedia, infographics, example plots, and Super User narratives, it offers stakeholders an engaging and accessible environment to explore ASPECT’s seamless

climate predictions. The continuous review by project partners ensures that the content is accurate, actionable, and aligned with user needs.

The online prototype is under development and will be publicly released once the domain name is finalized. This platform allows partners to explore the structure, navigation, and initial content, providing feedback that will inform the final version.

In the first half of 2026, a test version will be shared with additional Super Users. Their input on usability, clarity, and content relevance will be collected and analysed, guiding further refinements and improvements. This iterative process will enhance the handbook's functionality, ensuring it remains a practical, user-friendly, and evolving editorial resource that effectively supports the application of ASPECT climate predictions in real-world decision-making.