

The impacts of climate change on tourism: Preparation and adaptation

Three scenarios for the changing operating environment of urban destination tourism in Southern Finland





Background

The impacts of climate change on tourism: Preparation and adaptation

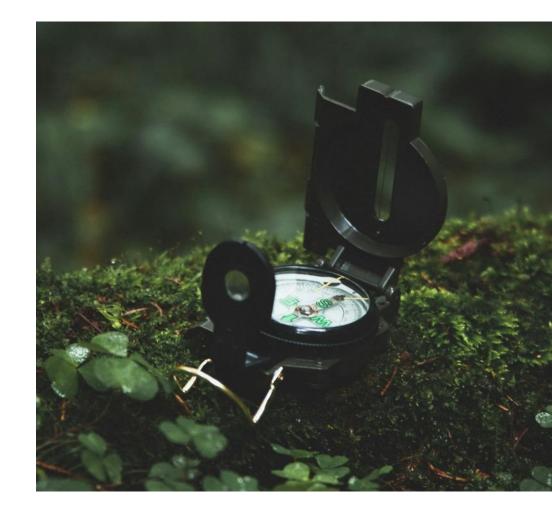
This reading material contains a part of the outputs from the scenario work on climate impact preparedness and adaptation for the tourism sector in Southern Finland. The main purpose of the scenario work, compiled and facilitated by Capful, is to provide strategic guidance for the Urban Climate Leaders in Tourism network in the development of sustainable urban destination tourism in Southern Finland.

The scenarios are designed to support the identification and consideration of key strategic issues in the context of climate change. They have enabled the examination of impacts related to, for example, emission reduction opportunities and sustainability measures relevant to the tourism sector, changes in consumer behavior and weather conditions in Southern Finland shaped by climate change.

The climate crisis is intertwined with various other developments affecting urban destination tourism in Southern Finland. Therefore, it has not been examined in isolation from major geopolitical or technological developments. Instead, the scenarios frame the climate as a core part of a complex and rapidly changing operating environment. The scenario work has sought to support cross-sectoral cooperation between city organisations and businesses in the search for solutions. The scenarios also provide a springboard for further analysis of the impacts of climate change on business in different parts of the tourism industry as well as in adjacent sectors: What will the future of transportation look like in the context of climate change? What challenges will the hospitality sector face? How should actors in the experience economy prepare for extreme weather events?

Key contents of the report have been developed by members of the Urban Climate Leaders in Tourism network with support from the Capful team. Excluded from this reading material is the scenario impact analysis section, which evaluates the impacts of the scenarios on urban destination tourism in Southern Finland. The views of the network members on how the scenarios will impact the industry have been crucial to this work; there is no substitute for the insight of industry professionals.

The scenario project has already sparked new ideas for a more sustainable future for the tourism sector. The Capful team wishes you further thought-provoking reading moments to boost the sustainability transition!



Picture: Pexels

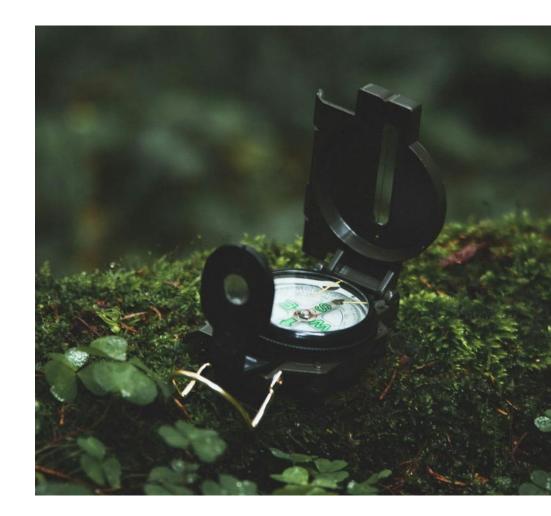


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The impacts of climate change on tourism: Preparation and adaptation

The study is divided into three parts:

- 1. Key uncertainties for urban destination tourism in Southern Finland
- 2. Scenarios: Three alternative trajectories for the operating environment
- 3. Making use of the scenarios: Identified paths forward

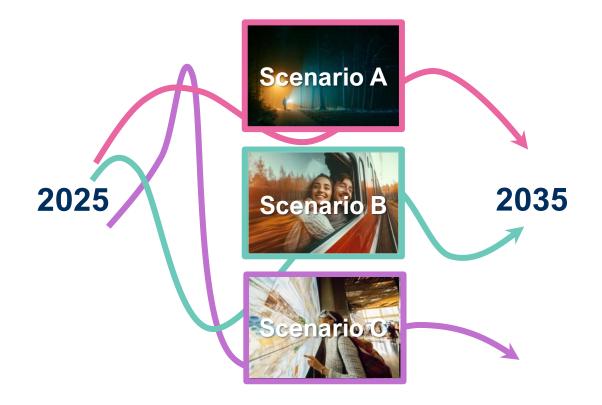




A quick guide to scenarios

Scenarios are alternative narratives between the present and a particular future. Their purpose is to stimulate thinking about different possible developments in the operating environment.

- 1. Scenarios depict alternative and possible future worlds, with a particular focus on the evolution of the external environment.
- 2. Scenarios are not predictions. They are depictions of different possible futures, a combination of fact and imagination. The aim is to help us understand current phenomena and their alternative courses of development.
- 3. Scenarios are not visions or strategies, although some may be more desirable than others. The scenarios aim to provide a multi-faceted basis for development work and planning for the future.





The working stages of the study process

The scenario work progressed in two main stages:

- Identifying the 10 most influential uncertainties shaping the operating environment of urban destination tourism in Southern Finland by 2035, arising from the context of the climate crisis. The uncertainties were identified by the project team with expert support from the City of Helsinki Climate Team.
- 2. Based on alternative developments of those uncertainties, **exploring possible trajectories for the operating environment** up to 2035 by crafting **three scenarios**:
 - A. "Safety first in a turbulent world"
 - B. "Trailblazing for the climate"
 - C. "The boundless boom of tourism"

The scenarios were inspired by the IPCC's SSP scenarios which highlight the socio-economic drivers and impacts of climate change.







10 identified uncertainties as a framework for the scenarios

Impactful but uncertain drivers of change shaping the future operating environment

To ground the scenario work, the project team identified 10 factors shaping the operating environment of urban destination tourism in Southern Finland whose development seemed the most

- a) impactful
- b) uncertain

Global climate cooperation:

- The state of international climate cooperation
- Main means of global climate action

International travel:

- Investments in the travel industry
- Emerging forms of international tourism
- Main actors, approaches and distribution channels in tourism

The development of Southern Finland:

- Aviation in Southern Finland
- The sustainability profile of Southern Finland
- Climate and weather conditions in Southern Finland
- Attitudes towards international tourism
- Emerging forms of domestic tourism









From key uncertainties to scenarios

Ten uncertainties and their possible alternative trajectories towards 2035 as scenario frames

	Global climate cooperation		International travel			The development of Southern Finland				
uncertainties	The state of international climate cooperation	Main means of global climate action	Investments in the travel industry	Emerging forms of international tourism	Main actors, approaches and distribution channels in tourism	Aviation in Southern Finland	The sustainability profile of Southern Finland	Climate and weather conditions in Southern Finland	Attitudes towards international tourism	Emerging forms of domestic tourism
Scenario A	Broken global cooperation	Sporadic restrictions and regulations	Declining investments	Group travel for the sense of safety and scalability	Traditional actors	A perceived decrease in aviation safety	Adaptation with limited resources	Significantly warmer conditions	Indifferent attitudes	Affordable local tourism
Scenario b	Consensus on the importance of the climate crisis, competition for the most ambitious measures	Regulated markets	Investments regulated on the basis of sustainability	Slow travel feels right	New forms of service	Regulated air travel	Leadership in ecological innovation	Warmer conditions despite local moderation measures	Critical attitudes	Shared purposes for travel
Scenario C	Declining interest in the climate	Technological solutions	Deregulated investments	Curiosity and enjoyment at the helm	Massive and distant platforms	Skyrocketing air travel	Political inertia	A broken climate with a Gulf Stream collapse on the horizon	Positive attitudes	Technology- enhanced local destinations

Scenario summaries



Three trajectories for the operating environment of urban destination tourism in Southern Finland

Scenario A "Safety first in a turbulent world"

Global climate cooperation International cooperation is broken and the global situation feels insecure; simpler short-term issues take precedent over coordinated responses to the climate crisis International travel Tourists seek security and consistency of service, especially through professionally organised group tours The development of Southern Finland Air travel feels less safe than before, both for security reasons and because of unstable weather conditions

Scenario B "Trailblazing for the climate"

Global climate cooperation	International consensus on the importance of tackling the climate crisis is solid as regions compete for the prestige associated with ambitious climate action
International travel	Investments in tourism are increasingly sustainability-driven; Proven and verified emission reductions and sustainability impacts are key drivers for investment and innovation
The development of Southern Finland	Regulation of air travel is particularly stringent, several airports in Southern Finland close for tourism use

Scenario C "The boundless boom of tourism"

Global climate cooperation	Hunger for growth and emission- intensive lifestyles overshadow climate concerns
International travel	Massive digital platforms reroute and redefine travel experiences and consumer choices, also determining what is perceived as sustainable tourism
The development of Southern Finland	The climate is particularly volatile, with a Gulf Stream collapse on the distant horizon

Scenario comparison



Three trajectories for the operating environment of urban destination tourism in Southern Finland

	Scenario A	Scenario B	Scenario C
Global climate cooperation	 International cooperation weakens as conflicts escalate, making climate action more difficult Climate regulation remains local, reactive and piecemeal in the absence of international consensus 	 Global challenges unite actors across borders and the fight against climate change becomes a shared priority Climate action and ambition become a domain of international competition; Resources are being channelled into clean energy and the circular economy as fossil fuel use is reduced 	 The international community prioritises fast growth and emissions-intensive lifestyles over fighting climate change Solutions to climate change are largely expected to come from innovation, as regulation and wider mobilisation for climate action remain limited
International travel	 Investment in the tourism sector declines due to an unstable international environment and consumer austerity Tour operators' support, group tours and promotional prices are attracting tourists, even though safety concerns are casting dark clouds over tourism Traditional travel operators are consolidating and the development of new innovations is slowed down by lack of investment 	 Investments in tourism are assessed on a sustainability basis, with an emphasis on emission reductions and sustainability transition effects Low-emission modes of transport and slow travel gain popularity in tourism The tourism sector responds to regulatory and market changes with more sustainable service concepts 	 Investments in tourism are not comprehensively assessed from a sustainability perspective A growing middle class in emerging global economies is seeking new travel experiences, while those who have travelled in the past continue to do so Digital platforms of large companies are driving consumer choices and shaping the tourism industry
The development of Southern Finland	 Security concerns drive up the cost of air travel and reduce air travel in certain contexts, but otherwise air traffic is growing Cost-effective climate solutions using local resources and emphasising resilience dominate in Southern Finland instead of big sustainable investments The climate in Southern Finland becomes significantly warmer and winters become clearly less snowy; extreme weather events will cause significant damage Finns turn their attention away from tourism despite the muchneeded additional income it generates Economic and climate considerations increase the popularity of local and domestic destinations 	 Systematic policy measures replace air travel (e.g. with rail travel) and the closure of some Sourthern Finnish airports for tourism Southern Finland profiles itself as a leader in sustainable development, investment and innovation Despite strong action, the climate is warming and the number of extreme weather events increases; local impacts have been tempered with climate-conscious urban design Tourism, especially air travel, is being scrutinised from a climate perspective Domestic tourism becomes more diversified by combining work, housing and culture with tourism 	 Air traffic is booming due to globalisation, low-emission solutions are being developed with uncertain results Political inertia slows down sustainable development efforts in Southern Finland Accumulating research suggests that the Gulf Stream is likely to collapse in the more distant future, threatening to cool Northern Europe severely; extreme weather events are already causing record levels of damage Tourism is seen as a delight of modern life and a as form of self-expression Digital solutions are transforming the travel experience in Finland, but domestic tourism is declining

Scenario A Safety first in a turbulent world

Global climate cooperation

Broken global cooperation

International cooperation is unravelling. Regional implications of the climate crisis are further exacerbating this development. Conflicts over resources such as water and land are increasing. International climate action suffers from a lack of cooperation, with the more concrete and direct threat of violence receiving more attention than the climate crisis. International climate action is reactive and sporadic, not global or consistent across different sectors of society.

Sporadic restrictions and regulations

There is no international consensus on climate regulation, so states and especially regions and cities compensate with sporadic regulation arising from local circumstances. Reactive restrictions (e.g. on the use of symbolically important local resources) play a large role.

International travel

Declining investments

The tourism sector in particular has been hit by the loss of international cooperation and the tightening of consumers' and investors' purse strings. The little new public investment that contributes to tourism (e.g. mobility infrastructure) is mainly expected to serve sectors and purposes other than tourism.

Group travel for the sense of safety and scalability

As the security and climate conditions worsen, group travel organised by professionals encourage people to embark on international trips. For example, affordable last minute offers attract people to weekend excursions.

Traditional actors

Traditional travel operators are consolidating. Given the low level of investment in the tourism sector, there is little incentive for new service innovation or market entries from new players.

The development of Southern Finland

A perceived decrease in aviation safety

Security concerns increase the cost of air travel and reduce consumer appetite for it. Flights are affected by GPS jamming, disruptions from the use of drones around airports and unstable weather conditions.

Adaptation with limited resources

Instead of big investments, cost saving emission reductions will dominate climate action in Southern Finland. Resources such as energy are being saved and local ones are being exploited, e.g. through the circular economy. Southern Finland is adapting to climate change by emphasising local resilience.

Significantly warmer conditions

The climate has heated up significantly in and around southern Finland. To many, four seasons seem like a thing of the past. Snowy winters are becoming a relatively rare occurrence. Extreme weather events such as floods will increase significantly.

Indifferent attitudes

More pressing concerns steal the limelight from tourism. However, summer tourism from the hotter Southern Europe, for example, bring much-needed extra income in the midst of economic woes.

Affordable local tourism

Economic factors and climate change have shaped travel habits. Cost-effectiveness is driving choices: local and domestic destinations have gained popularity as cheaper alternatives.





Concrete scenario dimensions

Scenario A: "Safety first in a turbulent world"

Global climate cooperation

- International cooperation weakens as conflicts escalate, making climate action more difficult
- Climate regulation remains local, reactive and piecemeal in the absence of international consensus

International travel

- Investment in the tourism sector declines due to an unstable international environment and consumer austerity
- Tour operators' support, group tours and promotional prices are attracting tourists, even though safety concerns are casting dark clouds over tourism
- Traditional travel operators are consolidating and the development of new innovations is slowed down by lack of investment

The development of Southern Finland

- Security concerns drive up the cost of air travel and reduce air travel in certain contexts, but otherwise air traffic is growing
- Cost-effective climate solutions using local resources and emphasising resilience dominate in Southern Finland instead of big sustainable investments
- The climate in Southern Finland becomes significantly warmer and winters become clearly less snowy; extreme weather events will cause significant damage
- Finns turn their attention away from tourism despite the much-needed additional income it generates
- Economic and climate considerations increase the popularity of local and domestic destinations







Unpredictability of traveling conditions	••••
Volume of tourism	
Autonomy of tourists	
Relevance of local tourism	••••

A weekend trip from Helsinki to Tampere

- Taking a weekend trip to a sauna festival in the sauna capital of Finland – Tampere! Our minibus left Helsinki filled to the brim with sauna enthusiasts. We managed pick up a couple of international visitors too despite the suspension of air traffic this week at Helsinki-Vantaa. A sauna-tour around Tampere in the December sleet feels quite refreshing under the current tense geopolitical situation!
- 5 stars: The familiar sauna heating master at Rajaportti Sauna continues to cultivate the sauna etiquette!



Scenario B

Trailblazing for the climate

Global climate cooperation

Consensus on the importance of the climate crisis, competition for the most Regulated air travel ambitious measures

The climate crisis and other global challenges are bringing actors together across borders. Tackling climate change is seen as a priority that serves the interests of all. Effective climate commitments are being made and regions such as the EU or China are competing for the most ambitious measures. Regions are using climate commitments and market regulation to attract sustainable investment and improve local quality of life.

Regulated markets

Internationally, markets are regulated towards lower emissions. The use of fossil fuels is being curbed and emission-based taxation introduced as clean energy production and the circular economy boom. Green innovation is the engine of economic growth.

International travel

Investments regulated on the basis of sustainability

Investment in tourism is scrtutinised on the basis of sustainability criteria. Proven and verified emission reductions and sustainability transition effects are key attractors of investment.

Slow travel feels right

Rail travel and other low-emission modes of transport have gained in popularity. Tourists stay longer in destinations, immersing themselves in the local culture and way of life. The slow travel philosophy emphasises quality over quantity. Remote working and business travel are combined with leisure travel. There is an increasing desire to make travel more meaningful through authentic everyday experiences and participation in local communities.

New forms of service

Service providers seek to develop new, more sustainable service concepts in response to regulatory and market changes. New, innovative players are entering the tourism sector.

The development of Southern Finland

Regulatory measures such as the tightened EU ETS and CORSIA have significantly increased the cost of flying. In Europe, short-haul flights have largely been replaced by rail, but the geography of Southern Finland does not allow this in the same way. In southern Finland, airports have been closed to tourism and Helsinki Airport is trying to find new more sustainable opportunities outside of its traditional operations.

Leadership in ecological innovation

Southern Finland has established itself as a bold innovation leader in sustainable development, combining green technology with nature-based solutions. The region is transforming its urban environments with extensive green and blue infrastructure, creating a living lab for sustainable everyday life and eco-tourism. Mobility relies on public transport and micromobility, allowing the space reserved for cars to be reallocated and made greener. The region's approach attracts more sustainable business.

Warmer conditions despite local moderation measures

Despite vigorous climate action, global warming has continued and extreme weather events have increased. Efforts have been made to manage the impacts of climate change locally with urban design. For example, depaying efforts have kept urban heat islands and floods in check.

Critical attitudes

Different sectors of the economy are being scrutinised from a climate perspective. The tourism sector is a subject of critical discussions and evaluations. Consumer and investor boycotts are particularly focused on flight-based tourism in Finland.

Shared purposes for travel

Work and leisure are increasingly being combined as reasons for traveling. People can spend months in different parts of Finland visiting attractions, meeting their loved ones, working (remotely) and taking part in local activities and events. Overall, local authenticity has gained in importance. Not only are homes being rented for tourism uses but also purpose-built tourism infrastructure is being used for multiple other purposes.







Scenario B: "Trailblazing for the climate"

Global climate cooperation

- Global challenges unite actors across borders and the fight against climate change becomes a shared priority
- Climate action and ambition become a domain of international competition; Resources are being channelled into clean energy and the circular economy as fossil fuel use is reduced

International travel

- Investments in tourism are assessed on a sustainability basis, with an emphasis on emission reductions and sustainability transition effects
- Low-emission modes of transport and slow travel gain popularity in tourism
- The tourism sector responds to regulatory and market changes with more sustainable service concepts

The development of Southern Finland

- Systematic policy measures replace air travel (e.g. with rail travel) and the closure of some Sourthern Finnish airports for tourism
- Southern Finland profiles itself as a leader in sustainable development, investment and innovation
- Despite strong action, the climate is warming and the number of extreme weather events increases; local impacts have been tempered with climate-conscious urban design
- Tourism, especially air travel, is being scrutinised from a climate perspective
- Domestic tourism becomes more diversified by combining work, housing and culture with tourism







••••

A workcation in Finland

- The first week of the Finland trip was a success! I got to meet quite a few professionals in my field in Tampere, but today I'm off to Helsinki to take some time off! The whole trip, by the way, succeeded without flights; first via the north to Finland by train and back to Stockholm by boat!
- **5 stars:** An exciting new restaurant concept in Tampere's circular restaurant zone, where restaurants use each others' side streams to create miraculous meals!



Pictures: Pexels: AS Photography

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CENARIO C

Scenario C The boundless boom of tourism

Global climate cooperation

Declining interest in the climate

The international community has good opportunities for cooperation, but its attention is not focused on the fight against climate change. The hunger for growth and emissions-intensive lifestyles are dominant on the international stage.

Technological solutions

Societal mobilisation for climate action is lacking. Regulation and market-reorientation play a relatively minor role in the fight against climate change. Technology companies with massive resources are developing effective climate solutions based on their own interests. However, this development work is fragmented and opaque to the larger public.

International travel

Deregulated investments

The willingness to invest in tourism is relatively high. Investment is not strictly scrutinised from a sustainability perspective. Scalablility and technology-driven solutions are key to attracting investment.

Curiosity and enjoyment at the helm

The rapidly growing middle class in emerging economies (e.g. in Asia and Africa) has given international tourism a significant boost. Tourists are eagerly seeking new experiences even over long distances. While previously exclusive experiences are now more widely available, those already accustomed to international toursim do not want to limit their travel.

Massive and distant platforms

Consumers' choices and experiences are routed through the digital platforms of major international companies. The platforms' interests are shaping tourism and their preferred ways of handling the climate crisis are becoming the industry standard in tourism.

The development of Southern Finland

Skyrocketing air travel

Air travel is booming as the world becomes more globalised and the middle classes of emerging economies grow more prosperous. At the same time, the world's wealthiest regions are reluctant to give up air travel. The weight of regulation aimed at making air transport more sustainable has declined. New low-carbon solutions for air transport attract investments, but are not enough to address the increasing climate burden.

Political inertia

Political divides and economic challenges have led to a slowdown in sustainable development efforts. Although some progress is being made, it is inconsistent. Southern Finland cannot distinguish itself in the field of sustainable developments.

A broken climate with a Gulf Stream collapse on the horizon

The predictions are piling up: Rapidly accelerating climate change will weaken the Gulf Stream in the more distant future. Temperatures in northern Europe are still rising, but future winters are forecast to be freezing and the living conditions of many species are expected to deteriorate. Meanwhile, extreme weather events such as storms are exceptionally impactful.

Positive attitudes

Tourism is accepted as one of the pleasures of modern life. A pleasure-seeking atmosphere characterises tourism as a form of self-expression and status.

Technology-enhanced local destinations

Digital solutions have transformed the travel experience in Finland. Smart devices provide real-time, personalised information on destinations and activities. Virtual guides and 3D-modelled historical reconstructions enliven local destinations. However, interest in international tourism is greater than domestic tourism.



Concrete scenario dimensions

Scenario C: "The boundless boom of tourism"

Global climate cooperation

- The international community prioritises fast growth and emissions-intensive lifestyles over fighting climate change
- Solutions to climate change are largely expected to come from innovation, as regulation and wider mobilisation for climate action remain limited

International travel

- Investments in tourism are not comprehensively assessed from a sustainability perspective
- A growing middle class in emerging global economies is seeking new travel experiences, while those who have travelled in the past continue to do so
- Digital platforms of large companies are driving consumer choices and shaping the tourism industry

The development of Southern Finland

- Air traffic is booming due to globalisation, low-emission solutions are being developed with uncertain results
- Political inertia slows down sustainable development efforts in Southern Finland
- Accumulating research suggests that the Gulf Stream is likely to collapse in the more distant future, threatening to cool Northern Europe severely; extreme weather events are already causing record levels of damage
- Tourism is seen as a delight of modern life and a as form of self-expression
- Digital solutions are transforming the travel experience in Finland, but domestic tourism is declining







Unpredictability of traveling conditions	••••
Volume of tourism	••••
Autonomy of tourists	
Relevance of local tourism	•0000

The first time in Europe

- The kids' first trip to Europe just started! The kids are pretty excited, even though it's windy and flooding instead of snowing... Originally we hadn't planned to come to Helsinki, but the partner hotels on the booking platform had no room in other cities in the region.
- 5 stars: A surprise visit to the hotel by Santa Claus! He'd made quite a long journey himself, apparently the snow has disappeared from his neck of the woods as well...



Pictures: Pexels: Kevin Ku, Maria Tyutina

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Current day news signals supporting the scenarios



Scenario A

"Copenhagen recruits tourists to work for the local environment"

Copenhagen has launched a programme to reward foreign visitors for behavior that supports local sustainability ambitions.

The programme, called "CopenPay", rewards ecological behaviour with benefits such as free lunches and museum admissions.

The aim is to create meaningful and memorable experiences that support the local community in a responsible way. For example, tourists get to borrow a kayak for free by committing to pick up litter at the port. In this way, visitors can contribute to cleaning up the city's waterways.

The programme's interactive map shows where visitors can help with climate-friendly activities.

Source: The Mayor. EU

Scenario B

"Fast asleep: Night train testing becomes an established profession across Europe"

Overnight travel has regained popularity in Europe with the introduction of new routes. The increased demand has created a need to ensure a high quality of service and a good night's sleep for passengers. After all, time flies when soundly snoozing on the go.

Radical Storage, a luggage storage company, is hiring an overnight train tester to travel on European overnight trains and assess their services and comfort.

Several companies, such as European Sleeper and Nightjet, have started or expanded their night train services across Europe, suggesting that there will be plenty of work for testers in the future.

Source: TheMayor.EU

Scenario C

"Startup integrates weather insurances into booking systems"

Swiss startup Poncho has launched a weatherbased insurance platform. The company aims to change the way the travel and hospitality industry deal with unpredictable weather.

The company uses real-time weather data and algorithms to predict conditions and calculate insurance prices.

Poncho's technology integrates with booking systems, allowing customers to purchase weather protection at the time of booking. If bad weather affects a booked event or trip, a refund is automatically processed without any additional claims.

Poncho is expanding its activities in the European travel market and building partnerships with insurance companies.

Source: The Next Web



Scenario independent changes in the operating environment (1/2)

Elements common to more than one scenario

In order to support comprehensive preparation for different possible developments, the scenarios have deliberately been made different from each other. However, there are also similarities between the scenarios. Key similarities can be found on this and the next page.



Scenarios A and C: Highly volatile conditions for tourism

In all three scenarios, intensifying extreme weather events are expected to lead to more unpredictable conditions for tourism in Southern Finland. However, scenarios A and C feature particularly unstable conditions. The causes for instability in these two scenarios are partly different. In scenario C, extreme weather events exacerbated by climate change are the dominant cause for instability. In scenario A, extreme weather events are accompanied by a deteriorating security situation related to geopolitical tensions.



Scenarios A and C: The declining autonomy of tourists

In scenario A, safety, reliability and affordability have become major selling points in tourism, increasing the demand for group travel organised by tourism professionals. In scenario C, tourists are guided by platforms and algorithms delivering services relevant to travelling. Such platforms are taking an increasing control over practices like destination booking, navigation and translation but also get to define how local culture or sustainable tourism are perceived.



Scenarios A and B: The increasing role of local visitors

In this context, local tourism refers to tourism from neighbouring European regions. Due to the urgent need for climate action, local tourism has gained a more positive image. In scenario B, local tourism is boosted mainly as a means to avoid emissions from air travel. In scenario A, the increase in short-haul tourism is also driven by an unstable geopolitical environment which may lead to security threats and travel restrictions. However, sustainability concerns and the state of the economy also play a role.



Scenario independent changes in the operating environment (2/2)

Elements common to all scenarios

Urgency for effective climate action

Climate change requires rapid and effective action in every scenario. Although the public interest in the climate crisis declines and many key actors turn their attention away in scenario C, climate change itself is not going away. In scenario C, inadequate climate action will ultimately exacerbate climate change. Irrespective of the scenario, the tourism sector therefore has a responsibility to take decisive action.

The geography of Southern Finland poses a particular challenge for tourism in the region: A large share of the emissions from urban tourism in Southern Finland relies on emission-intensive air travel. Unless this equation is a) changed (e.g., by reducing emissions from travel) and/or b) compensated by other sustainability impacts and emission reductions at destinations, Southern Finland will be at a competitive disadvantage in terms of climate impacts compared to nearby destinations (such as Stockholm and <u>Tallinn</u>, <u>where night train connections to Central Europe are also planned</u>).

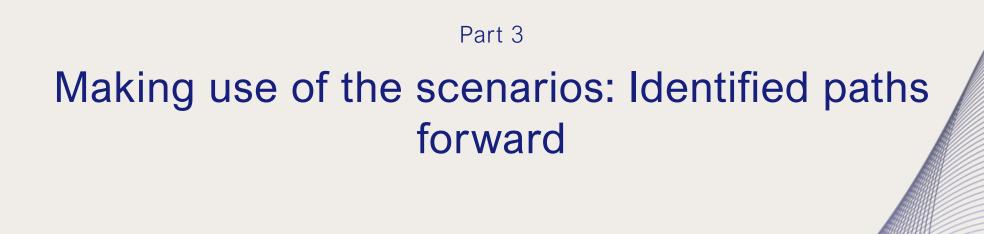
Changing weather conditions and increasing extreme weather events

Weather changes do not differ significantly by scenario, as different macro-level climate measures will not have time to have significant weather impacts by 2035. In all three scenarios, extreme weather events are assumed to become more frequent in Southern Finland. These extreme events raise concerns for the safety of tourists and put pressure on infrastructure maintenance. In addition to unpredictable extreme weather events, climate change in Southern Finland may mean, for example, wetter and less snowy winters, longer autumns and generally rising temperatures in different seasons (including more intense heat waves).^{1, 2} The lack of snow, darkness and humidity can pose challenges for winter season tourism, for example in terms of experiences and perceptions as well as the origanisation of outdoor activities. It might also trigger increased local criticism of air travel. Summer temperatures in southern Finland, on the other hand, could provide temporary relief for those living in hotter regions and have the opportunity to travel away from their sweltering homes during the summer. However, by relying on emissions-intensive forms of travel, such tourism would further accelerate climate change.

Indirect impacts of climate change

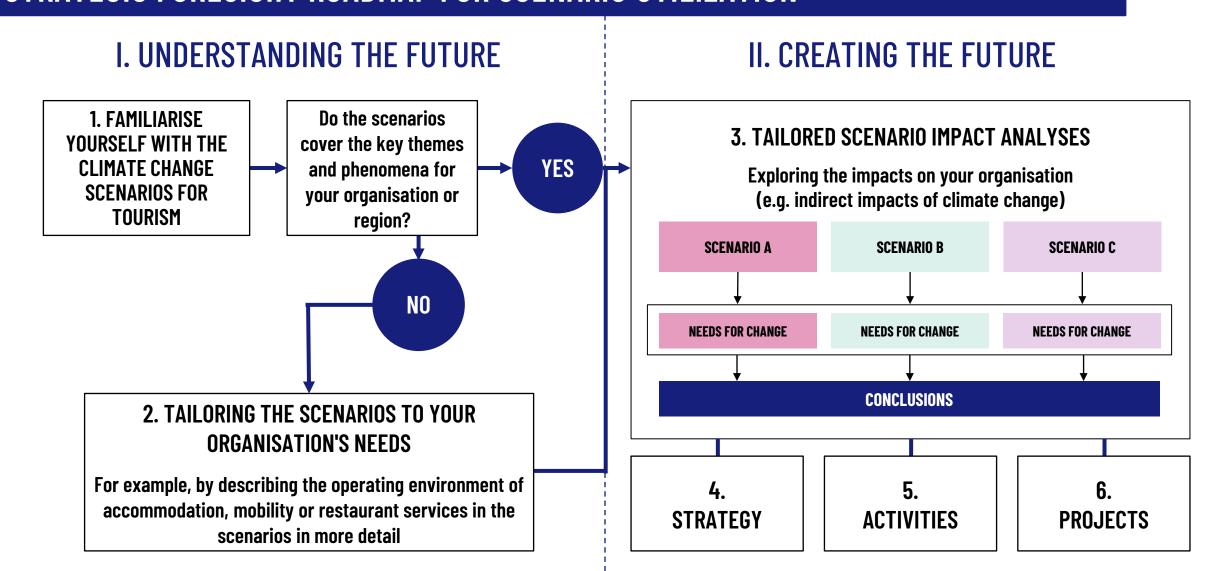
Although the study focuses on the tourism experiences in Southern Finnish urban destinations the context of a changing climate, much of the impact of climate change will hit the tourism sector indirectly. For example, international supply chains essential to the tourism industry may be disrupted by extreme weather events far away from Southern Finland. The impacts may vary depending on the specific sub-sector of the tourism industry.







STRATEGIC FORESIGHT ROADMAP FOR SCENARIO UTILIZATION





Beyond the scenarios for urban tourism in Southern Finland

Opportunities for further strategic foresight

Foresight activities have been identified as a joint interest for the Urban Climate Leaders in Tourism network. Multiple approaches to foresight can be explored together as a network or as individual organisations. Below are some of those approaches that have been identified in the joint discussions between the network and Capful:

Follow-ups and monitoring of key phenomena

The scenario work has identified ten key uncertainties affecting urban tourism in Southern Finland. The development of these or other uncertainties of interest such as supply chain regulation or emissions trading can be monitored systematically, e.g., by curating and structuring news signals or other information sources. How are key uncertainties developing? Will assumptions about the operating environment need to be modified or updated? Should new uncertainties or black swans affecting the tourism sector be analysed? Different timeframes and methods can be applied for further monitoring steps. Some applicable approaches include:

Follow-up workhops

Signal reports

Real-time monitoring tools

Tailored scenario content or impact analysis

This scenario work has focused on the changing operating environment of Southern Finnish urban tourism in general. This work could be complemented by additional, more targeted content. For instance, additional scenario and impact analysis content could focus on another region or address the needs of a specific organisation in more detail (e.g., by charting the indirect impacts of climate change on accommodation services in a particular region). Such additional foresight services can include:

- Workshops for tailored impact analysis
- Additional scenario content (e.g., to focus on a specific economic activity)
- Additional impact assessment content tailored to organisational or regional needs

