

REGIONAL GREEN AIRPORTS SEMINAR

Hosted by the Ministry of Transport of the Republic of
Uzbekistan



Airport Resilience and Guidance





Presenter name

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EUROCONTROL

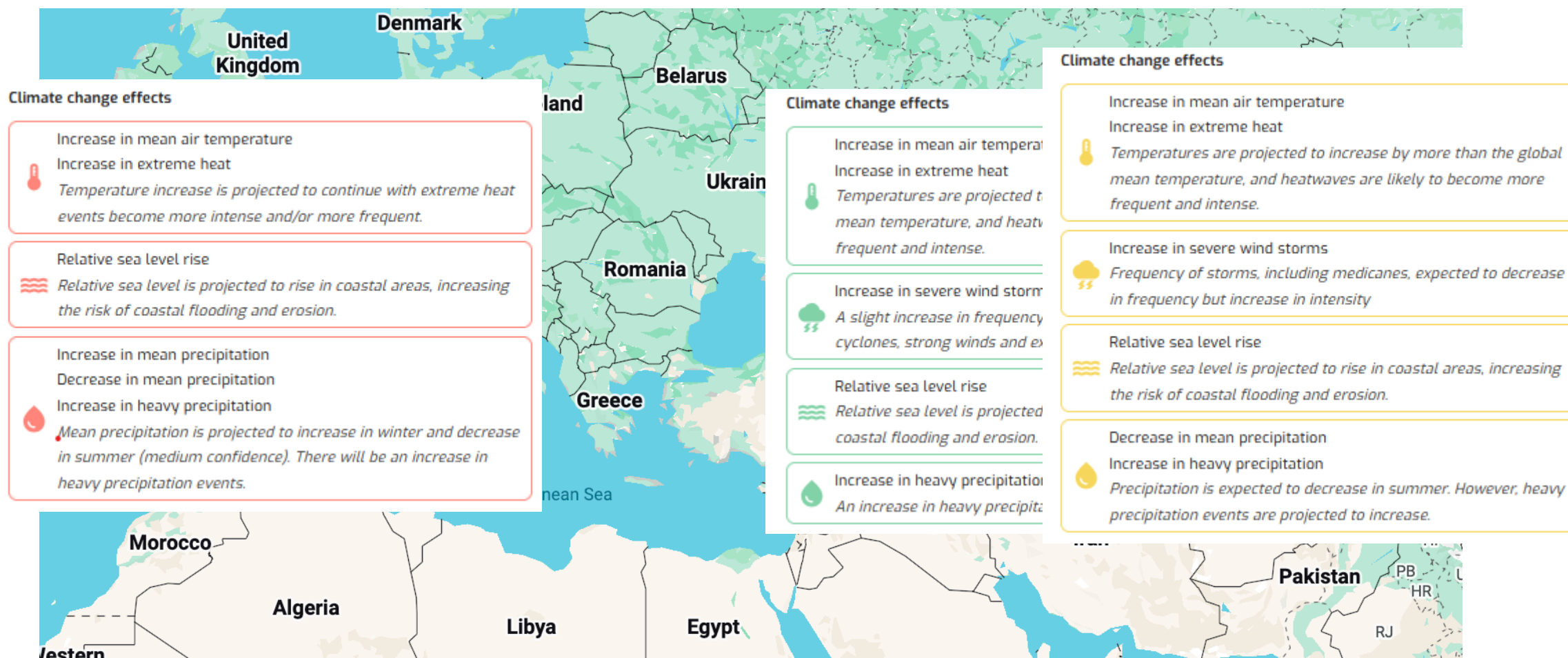
Agenda

- Overview of climate change effects and impacts for aviation infrastructure and operations
- The EACCA Guidance on Climate Change Risk Assessment and Adaptation
- An update on how to use FlyingGreen ClimAdapt to support climate change risk assessment and adaptation

Climate Change impacts for aviation are wide-ranging



Climate effects in the EUR/NAT region



Aviation faces a changing multi-hazard environment

INTENSE STORMS

Convective disruption:
operational disruption
Lightning and heavy
rain

01

EXTREME HEAT

Aircraft performance
Pavements and
equipment
Cooling requirements

02

FLOODING

Runway inundation
Infrastructure
inundation
Drainage and access

03

CHANGING WINDS

Routing and crosswinds
Capacity implications
Flight times

04

TURBULENCE

In-flight safety
Operational constraints

05

The challenge is not one hazard in isolation, but interacting risks across a connected system.

European Aviation Climate Change Adaptation Working Group



**Adapting European Aviation
to a Changing Climate:**
Guidance on Risk Assessment
and Adaptation



European Aviation by Climate Zone



Arctic region

Atlantic region

Mountain region

Coastal zones

Boreal region

Continental region

Mediterranean region

A Framework to Strengthen Climate Resilience



- **Regulatory** context
- Regional climate **projections**
- Practical steps for **assessing climate vulnerabilities**
- Approach to develop a climate change **preparedness strategy**
- Case studies & **good practices**
- Compendium of climate impacts
- Compendium of adaptation measures

How the Guidance Works?



Climate zone



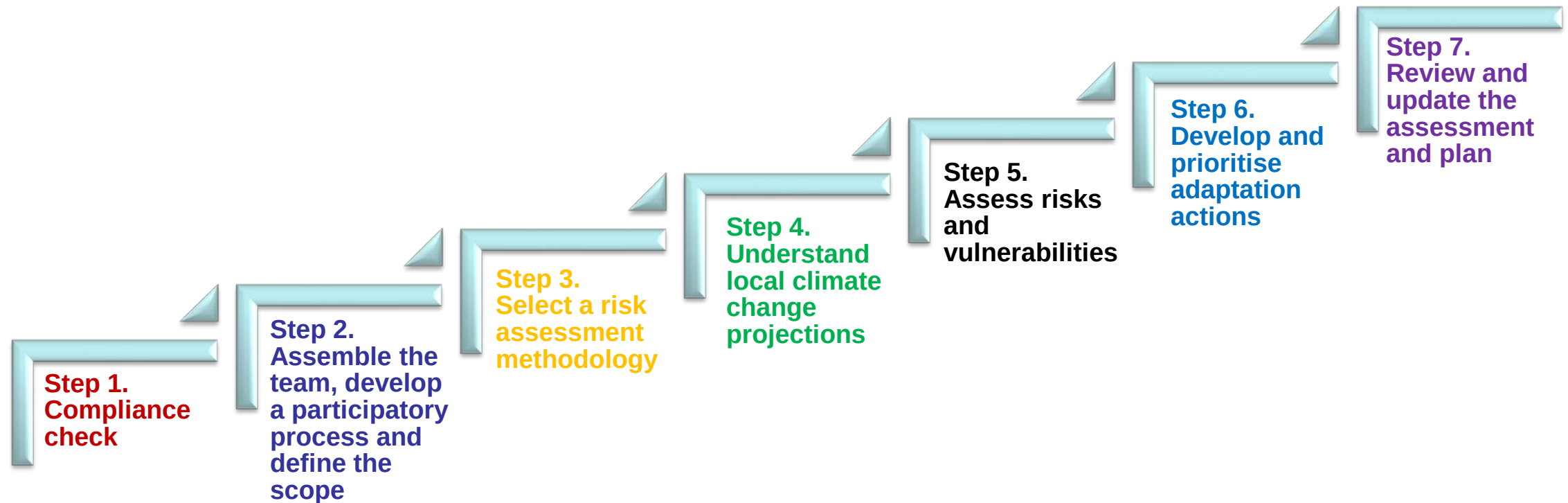
Expected
climate
scenarios

Understanding climate
change impacts on
aviation

Atlantic region

- **Increase in heavy precipitation events**
 - Increase in river flow
 - Increasing risk of river and coastal flooding
 - Increasing damage risk from winter storms
- **Changes in precipitation**
 - Details of impacts, impacted actors and expected consequences
 - Potential adaptation measures

An Approach to Develop a Climate Change Preparedness Strategy



Key Messages from the Guidance



- Climate risks are escalating and pose **greater threat for aviation**
- Adaptation is a **strategic and regulatory priority**
- **Collaboration** among stakeholders in the aviation sector is key



Toolkit for Climate Change adaptation: an update

A **centralised source** of information for Climate Change impacts and adaptation measures

High level screening tool

Is your operation climate-proof? Run a quick assessment to evaluate whether you know how climate change impacts could affect your aviation operations. Find out if further detailed analysis is advised.

Evaluate impacts



Economic Assessment tool

Plan for the financial implications of climate change impacts. Assess the likelihood of climate change events and evaluate potential impacts across key financial criteria. View a tailored cost projection to guide your strategic decision-making.

Run cost assessment



Repository of Climate Change Impacts and Adaptation Measures

Effectively manage the risks of climate change by identifying potential impacts and adaptation measures. This database helps you identify targeted solutions based on your stakeholder group, the climate effects you're facing, and the specific risks to your organisation.

Explore risks & solutions



Climate Change Adaptation Planning Checklist

Use our checklist to identify the key steps to evaluate the impacts of climate change on aviation infrastructure and operations and develop an adaptation plan, ensuring that your national aviation sector is prepared for potential climate impacts.

Review checklist





<https://flying-green.eurocontrol.int/#/clim-adapt>

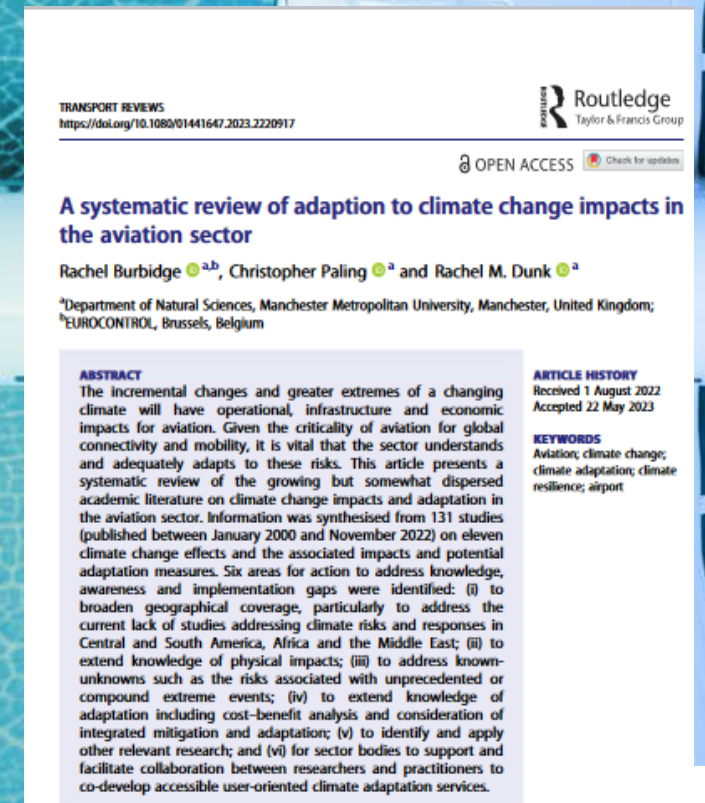
Thank you for your attention

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