

A satellite image of Europe and the surrounding regions, showing cloud cover and landmasses. A white rectangular text box is overlaid on the top half of the image.

# IMPROVING METEOROLOGICAL SERVICES **TOGETHER**

Cover photo by ©EUMETSAT



**EUMETNET**

EUROPEAN METEOROLOGICAL  
SERVICES NETWORK

# WHY TRACK THE WEATHER?

## A DECISION-MAKING TOOL



### EVERYDAY WEATHER



Economic activity depends on weather forecasts



### BUSINESSES

Businesses of all types take into account forecasts to better plan and adapt their processes.



### TRANSPORT

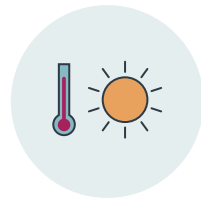
Air, sea or land-based transport rely on weather predictions to ensure the safety of passengers and freight and to anticipate potential delays.



### SEVERE WEATHER



Severe weather threatens property, health & safety



### HEATWAVES

Heatwaves are on the rise and can cause many deaths, forest fires and dramatic crop losses.



### STORMS AND FLOODS

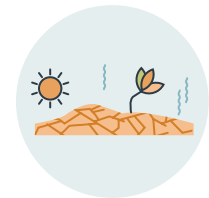
They can put lives at risk and cause huge disruption and damage to infrastructure and property.



### MONITORING A CHANGING CLIMATE

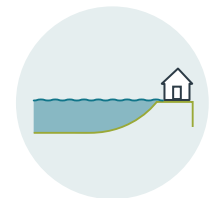


Identifying impacts



### DROUGHTS

Predicting their frequency and duration is essential to agriculture and water resource management in both rural and urban areas.



### RISING SEA LEVEL

One of the most challenging mid-to long-term effects of climate change. It is monitored very closely, especially in heavily urbanised coastal areas.

## WE ALL SHARE WEATHER



Whilst the borders of countries are well defined, the weather knows no borders and affects us all. Meteorologists know it's impossible to predict the weather over a country with just national observations. All countries, big and small, have much to add to the pool of relevant data. In return, every country can rely on a huge amount of useful measurements that help frame their observations, and thus their forecasts, into a bigger picture. That's why it's so important to work together. Weather forecasts are a complex product of science and technology that eventually improve and affect the life of everybody – both on a societal and a political landscape. From the simple fact of taking an umbrella when leaving for work to deciding how much power production will be needed on a given day, forecasts are tailored to specific uses.

**Tracking and predicting the weather – tools for decision and policy making**

**CITIZENS**

I am better prepared if adverse weather comes my way and I can even subscribe to warning services. Will there be snow on my skiing holiday? Shall I pack ear warmers for my night out? Will tomorrow's amount of pollen be lower than today's?

**WHO BENEFITS?**

**INDUSTRY AND BUSINESSES**

Industrial sites protect vulnerable equipment from thunderstorms. Farmers and gardeners plan for optimal irrigation. Transport companies tackle potential hazards and prepare for delays. Ice cream vendors restock when warm days lie ahead.

**POLICY & DECISION MAKERS**

A mayor might decide to cancel an outdoor festival based on weather warnings received. A city with hot summers might come up with a plan to plant more trees or change urbanisation and traffic rules. Authorities can prepare safeguarding the homeless in case of a cold spell.

### ACADEMIA AND RESEARCHERS



The science behind weather and climate is enormously complex. The challenge of this century is to get a better understanding, leading to improved modelling of what we call the 'Earth System': the atmosphere that interacts with the oceans, land and sea ice. Strong collaboration with academia is paramount to better forecasts at all ranges.

# WHY NETWORK?

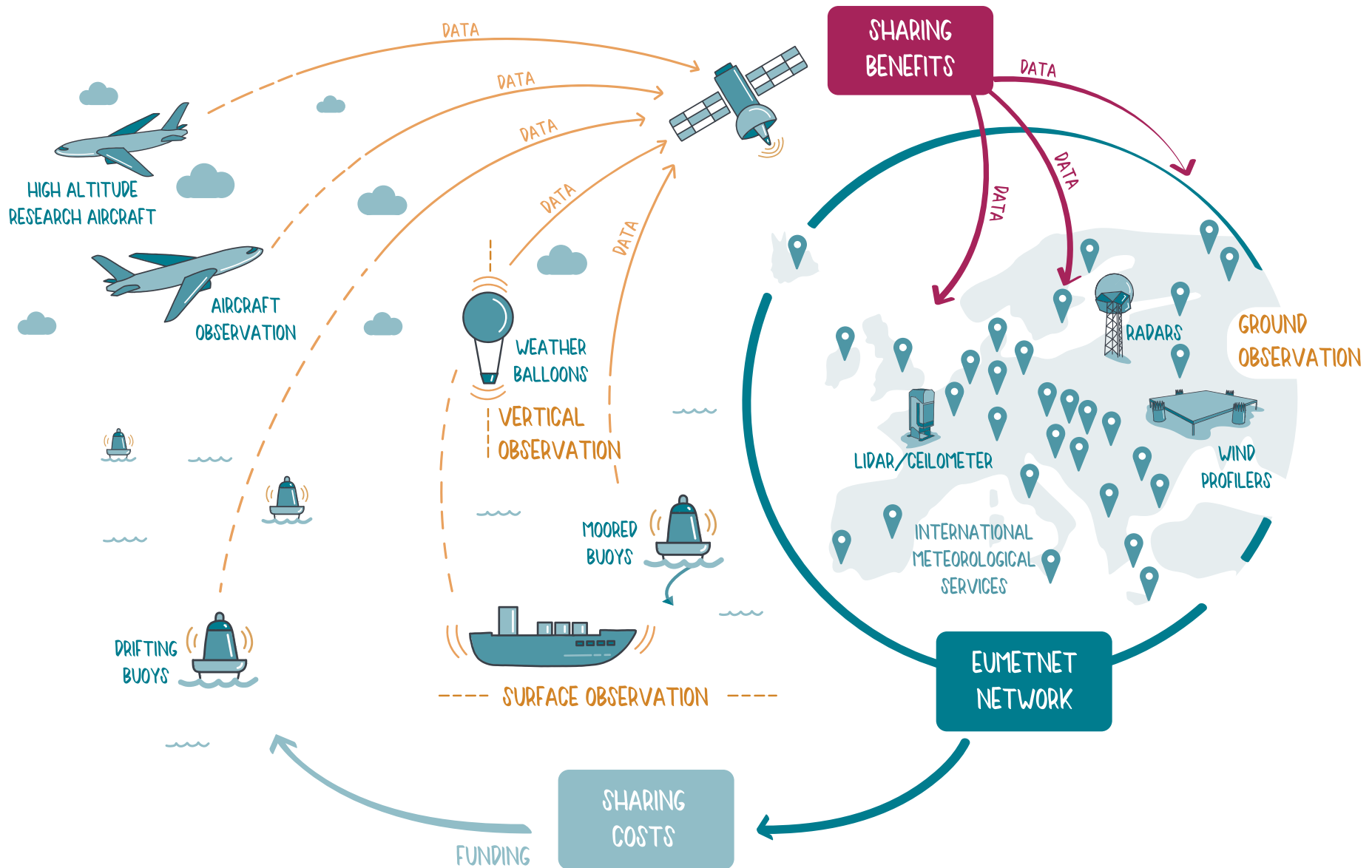
## SHARING A COMMON FRAMEWORK

Across Europe, every country has its own NMS (National Meteorological Service) satisfying the national need for weather services, including the provision of observations. In the mid-1990s a group of these NMSs recognised the benefits of working more closely together to meet some of their shared observational needs over Europe and the North Atlantic. This led to the creation of EUMETNET and the first set of observations programmes which demonstrated the efficiency of this regional approach, and made it possible to invest in capabilities no one NMS could do on its own. Today this has grown and matured into a flexible setup of 31 NMSs that other parts of the world aspire to. By joining forces, NMSs are strengthened.

### AN EXAMPLE OF COLLABORATION

A large amount of European weather comes from the west, but who actually observes it in the North Atlantic Ocean? The 31 Members of EUMETNET share the costs of a system that monitors the atmosphere over the North Atlantic and the Arctic (along with the USA and Canada). EUMETNET funds container ships that release weather balloons that provide vertical profiles of the atmosphere with an accuracy that satellites cannot reach. Additionally, buoys with pressure and temperature sensors are deployed and provide high-quality sea surface data. The Members receive a return on their investment in such an infrastructure in the form of reliable data that can be used directly for weather prediction systems worldwide.

### HOW DO MEMBERS BENEFIT?



#### A COLLABORATIVE FRAMEWORK

EUMETNET is a place where Members discuss and eventually agree on topics where costs (and benefits) will be shared. It also has the advantage of providing a single access point to the EUMETNET community of NMSs.



#### OPTIMISING COSTS

Running expensive infrastructure is beyond the means of a single NMS. EUMETNET observations programmes are tuned to cater to the needs of all participants. A cost-sharing mechanism and the adoption of efficient regional management arrangements make it affordable even for smaller countries.



#### GATHERING & SHARING INFORMATION

EUMETNET makes it possible for experts in various scientific and technical fields to meet and share information and best practices and identify ways to work together on shared opportunities and challenges.



#### AVOIDING ISOLATION & WORKING TOGETHER

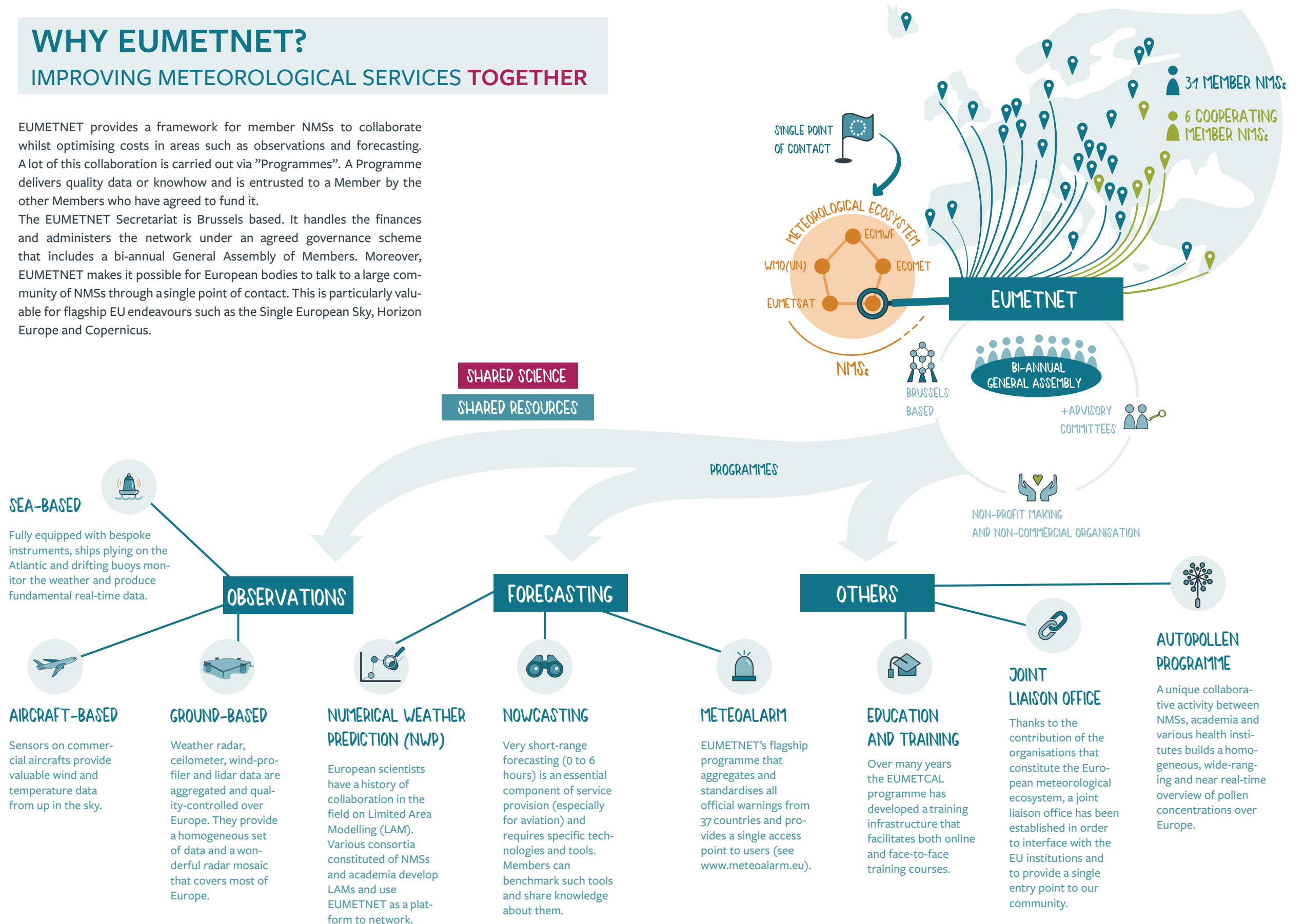
Knowing what your neighbours are doing (or not doing) is an invaluable source of information for Members that is vital to many different fields. We work together to elaborate regional network development plans and common performance goals.

# WHY EUMETNET?

## IMPROVING METEOROLOGICAL SERVICES TOGETHER

EUMETNET provides a framework for member NMSs to collaborate whilst optimising costs in areas such as observations and forecasting. A lot of this collaboration is carried out via "Programmes". A Programme delivers quality data or knowhow and is entrusted to a Member by the other Members who have agreed to fund it.

The EUMETNET Secretariat is Brussels based. It handles the finances and administers the network under an agreed governance scheme that includes a bi-annual General Assembly of Members. Moreover, EUMETNET makes it possible for European bodies to talk to a large community of NMSs through a single point of contact. This is particularly valuable for flagship EU endeavours such as the Single European Sky, Horizon Europe and Copernicus.



**EUMETNET MEMBERS:**



**COOPERATING MEMBERS:**



**STRATEGIC EUROPEAN AND GLOBAL PARTNERS:**



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