



19 October 2020

with

## Sub-seasonal forecasts

for the weeks of 19 - 25 October, 26 October - 1 November, 2 - 8 November, and 9 - 15 November 2020

## &

## **Seasonal forecasts**

for the months of November and December 2020, and January 2021

The S2S4E Decision Support Tool (DST) v1.6.0 is an operational climate service that integrates, for the first time, sub-seasonal to seasonal climate predictions with renewable energy production and electricity demand.

Find examples of how the DST forecasts can inform the energy sector in the

**Case Studies Factsheets** 

available at:



SUMMARY

### Unusually warm autumn in the Mediterranean and Scandinavia

High temperatures are expected in eastern Mediterranean for the rest of October, particularly in Greece, Cyprus, Turkey and the Black Sea, with a risk of extremes. Until January 2021, mild temperatures that are above the normal for the season are expected throughout the Mediterranean, as well as in parts of central Europe and Scandinavia. Temperature extremes are predicted for Norway in December 2020 and for Finland in January 2021.

This outlook presents forecasts available on the DST on the 19th of October 2020 for the

coming four weeks and next three months. These S2S4E forecasts were made by postprocessing the climate prediction systems ECMWF-Ext-ENS (sub-seasonal) and ECMWF

SEAS5 (seasonal), following the methodology described in the advanced help of the DST.

### Strong winds in late October, but mild winds from November

Unusually strong winds for the season are expected throughout most of Europe during the week 19-25 October, with a risk of extremes in Spain, France, Germany, Poland, Belarus, the Baltic countries and southern Scandinavia. However, below normal wind speeds are predicted in several parts of Europe from November to January, with the exception of high extremes in parts of Italy in November.

### Rainy October and November in the Baltic Sea

Unusually high precipitation is expected in the Baltic Sea region, parts of the Iberian Peninsula, UK and Scandinavia during the week 19-25 October. Above normal precipitation is also predicted in Poland, Lithuania and Latvia in November.

### November with little sun in central Europe

Below normal solar radiation will be seen in France, Germany, Belgium and the Netherlands in November, with a risk of extremes. By contrast, central Mediterranean will see high solar radiation until the end of October.

The S2S4E partners shall not be liable to any user for any loss or damage, whether in contract, tort (including negligence), breach of statutory duty or otherwise, even if foreseeable, arising under or in connection with use of, or inability to use, this outlook.



If you have queries or feedback you can contact us at:

s2s4e@bsc.es



The DST outlooks are released once per month and are available at:



s2s4e.eu/climate-services/outlooks

www.s2s4e.eu/dst



This project has received funding from the Horizon 2020 programme under grant agreement n°776787. The content of this report reflects only the author's view. The European Commission is not responsible for any use that may be made of the information it contains.



**Probability terms** Enhanced : 34% - 49% High: 50% - 70%:

Very High: Greater than 70%

19 - 25 October



# **Temperature forecasts**



Legend

### SUB-SEASONAL

Prediction system used: ECMWF-Ext-ENS



**High** probability of below normal temperatures over the Atlantic, affecting Scandinavia and the UK. High probability of above normal temperature in eastern Mediterranean and Spain, with risk of extremes (50% skill).

# 26 October - 1 November 1..... . . . . . . . . . . . . . . . . Em

High probability of below normal temperature over the Atlantic, affecting Portugal and the Canary Islands. High probability of above normal temperature and extremes in northern Europe, particularly Scandinavia (20-30% skill).



**High** probability of below normal temperatures in the Iberian Peninsula and France. High probability of above normal temperatures in central and eastern Mediterranean, as well as in the Scandinavian countries (<20% skill).

January 2021

### 9 - 15 November



Enhanced probability of above normal temperature in eastern Mediterranean and the Baltic Sea. Enhanced probability of below normal temperatures in central Europe (<10% skill).

### SEASONAL

ECMWF SEAS5

Prediction system used:

1 . ..

### November 2020

**High** probability of above normal temperatures

in parts of Spain, Italy and Germany (>5% skill).

£.....





**High** probability of above normal temperatures around the Alps and in Norway (up to 10% skill).



High probability of above normal temperatures

in Finland (~5% skill).

Browse the global forecasts in the DST:

www.S2S4E.eu/dst

The S2S4E partners shall not be liable to any user for any loss or damage, whether in contract, tort (including negligence), breach of statutory duty or otherwise, even if foreseeable, arising under or in connection with use of, or inability to use, this outlook.



### **Probability terms Enhanced** : 34% - 49% High: 50% - 70%:

Very High: Greater than 70%

19 - 25 October



# Wind speed forecasts



### SUB-SEASONAL

Prediction system used: ECMWF-Ext-ENS



High probability of above normal wind speed over most of Europe, particularly towards the east (e.g. in Poland and Belarus), and in the Iberian Peninsula, with risk of extremes (20% skill).

### 26 October - 1 November

# 

Enhanced probability of above normal wind speed in the Iberian peninsula and south of France (<10% skill).

2 - 8 November f . . . . . . . . . . . . . . . ..... ....

Enhanced probability of below normal wind

speed in the North Sea, and in central and

eastern Europe (<5% skill).

9 - 15 November



Forecasts show no clear signals.

### SEASONAL

### Prediction system used: ECMWF SEAS5

Maps show areas where



Browse the global forecasts in the DST:

www.S2S4E.eu/dst



### **Probability terms** Enhanced : 34% - 49% High: 50% - 70%:

Very High: Greater than 70%

# **Precipitation forecasts**



### SUB-SEASONAL

Prediction system used: ECMWF-Ext-ENS

SEASONAL

ECMWF SEAS5



The S2S4E partners shall not be liable to any user for any loss or damage, whether in contract, tort (including negligence), breach of statutory duty or otherwise, even if foreseeable, arising under or in connection with use of, or inability to use, this outlook.



Probability terms Enhanced : 34% - 49% High: 50% - 70%: Very High: Greater than 70%



# Solar radiation forecasts

### SUB-SEASONAL

Prediction system used: ECMWF-Ext-ENS

Maps show areas where skill (fRPSS) > 0



**Very high** probability of below normal solar radiation in the Iberian Peninsula, the UK and northern Sweden. **Very high** probability of above normal solar radiation in the north of Africa, Italy and the Balkans (40-50% skill).

### 26 October - 1 November

# Non Se

**Enhanced** probability of **below normal** solar radiation in the Iberian Peninsula. **High** probability of above normal solar radiation in Africa, Italy, the Balkans, Ukraine and Germany (30% skill).

December 2020



Forecasts show no clear signals.

9 - 15 November



Forecasts show no clear signals.

### SEASONAL

### November 2020

### 

Prediction system used: ECMWF SEAS5

Maps show areas where skill (fRPSS) > 0

# sed:

High probability of below normal solar radiation in France, Germany and Benelux (up to 10% skill), with a risk of extremes.

Forecasts for skillful areas show no clear signals.



Forecasts for skillful areas show no clear

January 2021

Browse the global forecasts in the DST:

www.S2S4E.eu/dst

signals.

Above Normal

Below

The forecast information provided is probabilistic. Instead of one single model realisation, several realisations are considered (ensemble members), providing a set of several possible outcomes (51 for both ECMWF-Ext-ENS and ECMWF SEAS5). This information is summarised and transmitted in the form of probabilities. Three equiprobable categories (terciles) have been used: below normal, normal and above normal. Each one of these tercile categories contains one third (33.3%) of the events over the reference period. The forecasted probability corresponds to the percentage of ensemble members predicting below normal, normal or above normal conditions, based on the past climatology.



50% to 10	00%	As seen in the DST, regions where the predicted probability of the most likely tercile equals or is higher
• 34% to 49	9%	than 50% are represented with a bigger symbol, to highlight areas of larger probability. Users can customise the exact percentage of predicted probability (from 0 to 100%) in the DST.
EXTREME	ES	
A Max (p90)		To provide information about the probability of having very high or very low climate conditions, the DST
🐺 Min (p10)		displays the percentage of members under the 10th percentile and the percentage of members exceeding the 90th percentile. These 10th and 90th percentiles have been computed from the dimatological period.
		Extreme events are shown with a triangle symbol when the probability of an extreme event occurring is
SKILL SCO	DRES	over 25%.
Fair :	>0% to <15%	In the maps presented in this outlook, only regions with positive skill are shown. Skill scores below 0 are
Good	15-30% >30%	defined as unskilful, those equal to 0 are equal to the climatology forecast, and anything above 0 is an
Very good		improvement upon climatology, up to 1, which indicates a "perfect" forecast. In the DST, these values
		have been expressed as percentages, where a skill of 1 would equal to 100% skill. FairRPSS for terciles

If you have queries or feedback you can contact us at:

s2s4e@bsc.es



and Brier Skill Scores for extremes are used.

The DST outlooks are released once per month and are available at:



www.s2s4e.eu/dst





The S2S4E Decision Support Tool (DST) v1.6.0 is an operational climate service that integrates, for the first time, sub-seasonal to seasonal climate predictions with renewable energy production and electricity demand.

Find examples of how the DST forecasts can inform the energy sector in the

**Case Studies Factsheets** 

available at:



This project has received funding from the Horizon 2020 programme under grant agreement n°776787. The content of this report reflects only the author's view. The European Commission is not responsible for any use that may be made of the information it contains.

s2s4e.eu/climate-services/outlooks