

# OUTLOOK

17 August 2020

with

## Sub-seasonal forecasts

for the weeks of

17 - 23 August, 24 - 30 August,  
31 August - 6 September, and 7 - 13 September  
2020

&

## Seasonal forecasts

for the months of

September, October and November 2020

The S2S4E Decision Support Tool (DST) v1.4.0 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:

[www.S2S4E.eu](http://www.S2S4E.eu)

This outlook presents forecasts available on the DST on the 16<sup>th</sup> of July 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.



## SUMMARY

### Temperature extremes in Europe in August

Heat extremes expected next week in many parts of north-eastern Europe, the Atlantic coast and Mediterranean basin. The hot temperatures are likely to persist during the following weeks particularly in eastern Europe and the Mediterranean region.

### Precipitation and wind anomalies expected next week

Lower than normal winds and precipitation expected next week in Scandinavia and eastern countries. Higher than normal precipitation expected next week in the Balkans, with risk of extremes.

### Windy Atlantic with risk of extremes in the Canary Islands

For the week of 24 to 30 of August there is high probability of above normal wind speed in the Atlantic, affecting the Canary Islands, Moroccan coast and south-west Iberia. A risk of high extremes in the Canary Islands is predicted.

### Autumn insights

Mostly warm September, cool October and warm November are expected in Europe. October is likely to present below average wind speeds over mainland Europe. In November higher than normal wind speeds are expected in the Mediterranean region.

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

[s2s4e@bsc.es](mailto:s2s4e@bsc.es)



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

[s2s4e.eu/climate-services/outlooks](http://s2s4e.eu/climate-services/outlooks)



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*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.*



# Temperature forecasts

## Predicted tercile

- Above
- Normal
- Below

## Probability range

- 50% to 100%
- 34% to 49%

## Extremes

- ▲ Max (p90)
- ▼ Min (p10)

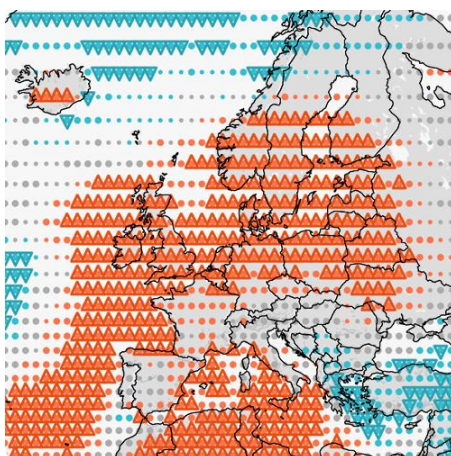
## Legend

## SUB-SEASONAL

Prediction system used:  
ECMWF-Ext-ENS

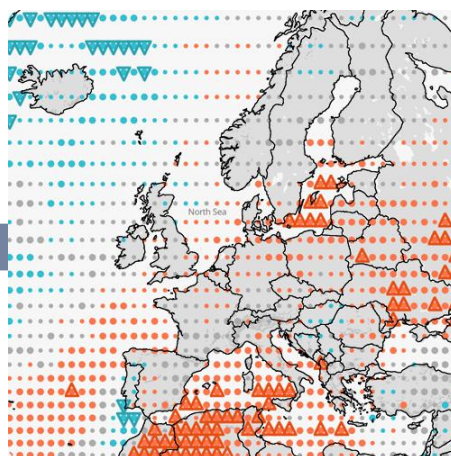
Maps show areas where  
skill (fRPSS) > 0

### 17 - 23 August



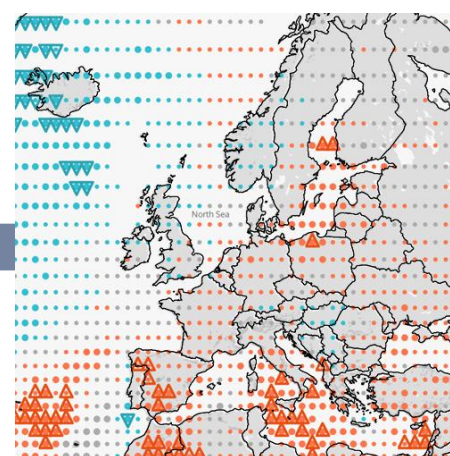
**Very high** probability of **above normal** temperature in the north-east of Europe, Atlantic coast and the Mediterranean Sea, with extended risk of extremes in the UK, Benelux countries, Germany, Poland and southern Scandinavia (40% skill).

### 24 - 30 August



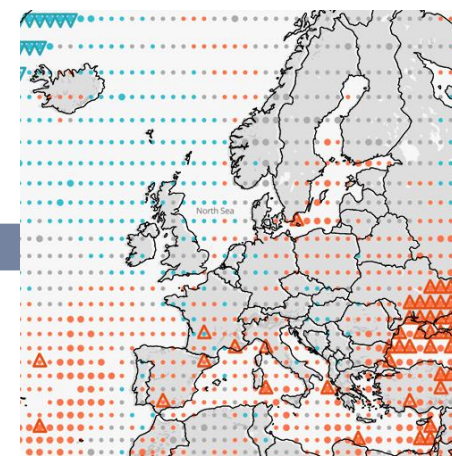
**Enhanced to high** probability of **above normal** temperatures in north-east Europe and the Mediterranean Sea, with risk of extremes in the Baltic Sea, south of the Mediterranean Sea and some points in eastern Europe (20% skill).

### 31 August - 6 September



**High** probability of **above normal** temperature persisting in the Baltic Sea and Mediterranean countries, with some risk of extremes in the Iberian Peninsula and Italy (10% skill).

### 7 - 13 September



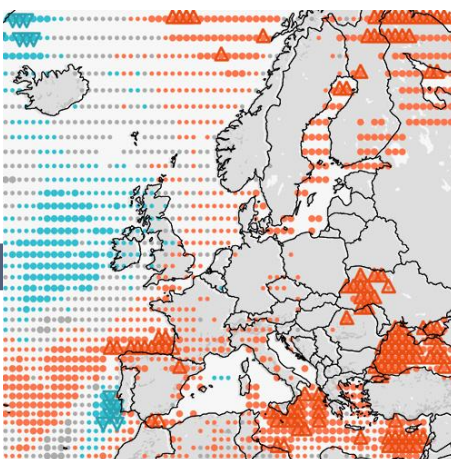
**High** probability of **above normal** temperatures in eastern Europe, the Baltic Sea and the Mediterranean (10-30% skill).

## SEASONAL

Prediction system used:  
ECMWF SEAS5

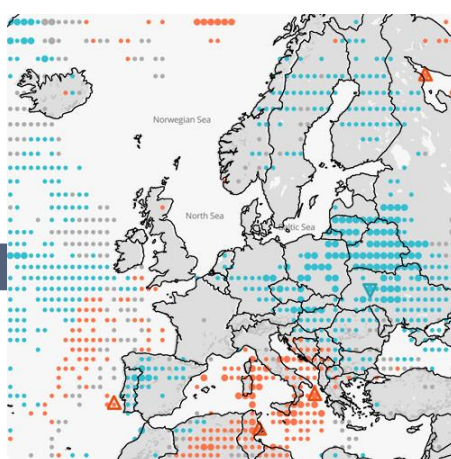
Maps show areas where  
skill (fRPSS) > 0

### September 2020



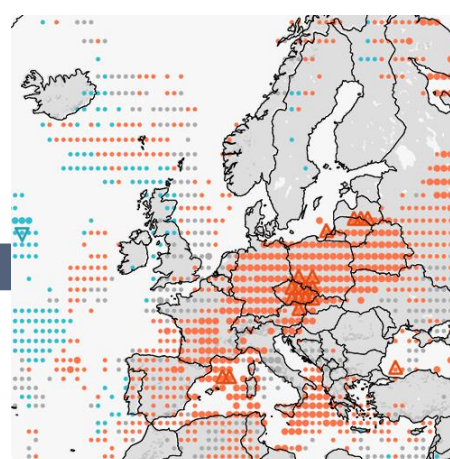
**Very high** probability of **above normal** temperature in north of Spain, south of France, Italy, eastern Mediterranean, Black Sea, Ukraine, Baltic Sea and Finland; risk of extremes in the northern coast of Spain and Ukraine (5-20% skill).

### October 2020



**High** probability of **below normal** temperature in central, north, and east parts of Europe, **very high** in Lithuania, Belarus and Spain. **Very high** probability of **above normal** temperature in Italy and the Balkans (<10% skill).

### November 2020

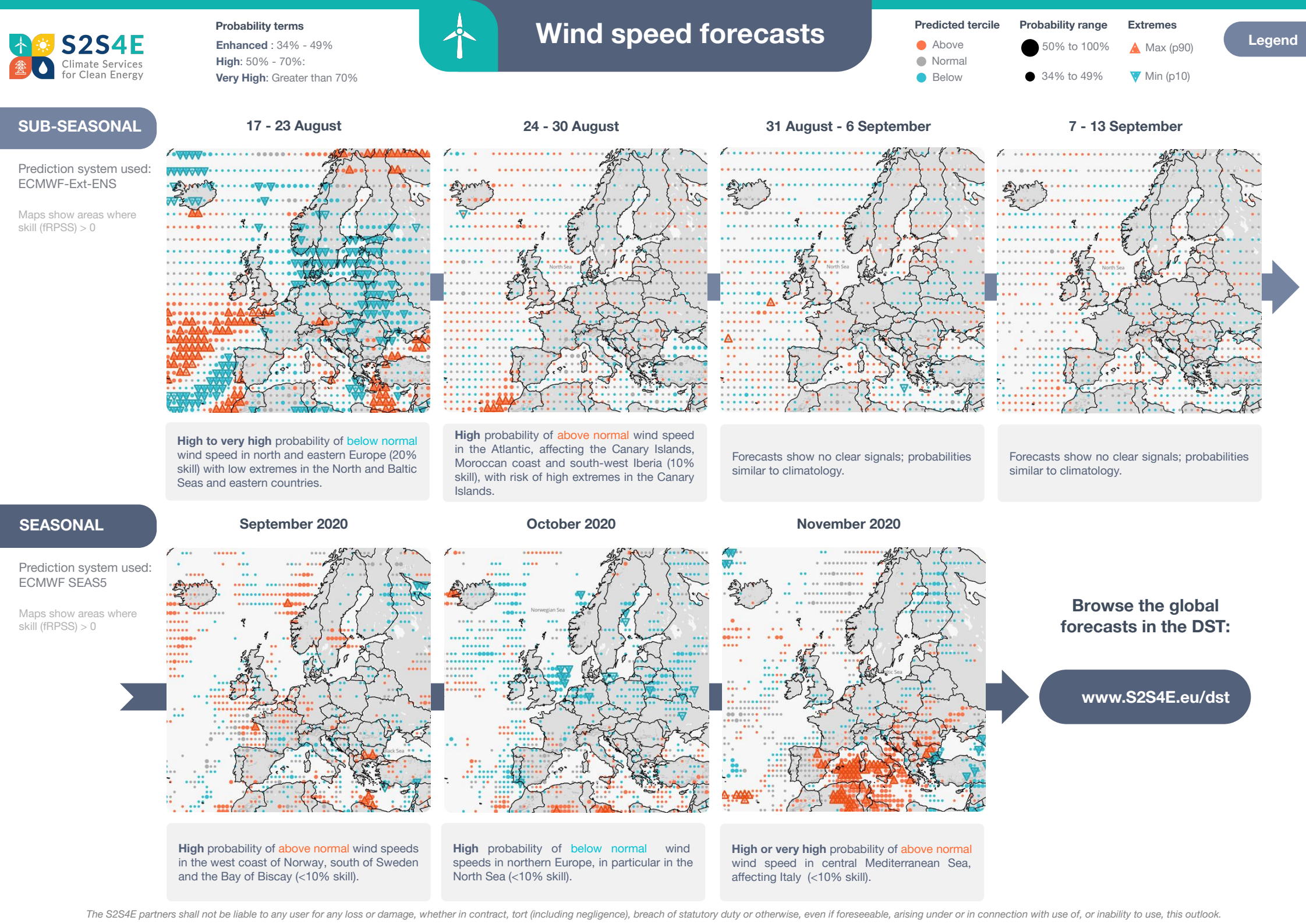


**High** probability of **above normal** temperature in most of Europe, **very high** in Poland and Czech Republic with risk of high extremes (10% skill).

**Browse the global  
forecasts in the DST:**

[www.S2S4E.eu/dst](http://www.S2S4E.eu/dst)







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



# Precipitation forecasts

**Predicted tercile**  
● Above  
● Normal  
● Below

**Probability range**  
● 50% to 100%  
● 34% to 49%

**Extremes**  
▲ Max (p90)  
▼ Min (p10)

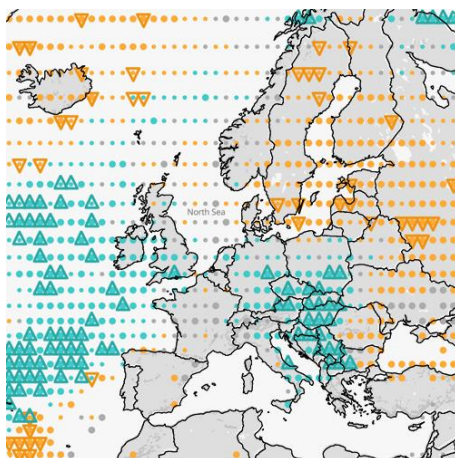
**Legend**

## SUB-SEASONAL

Prediction system used:  
ECMWF-Ext-ENS

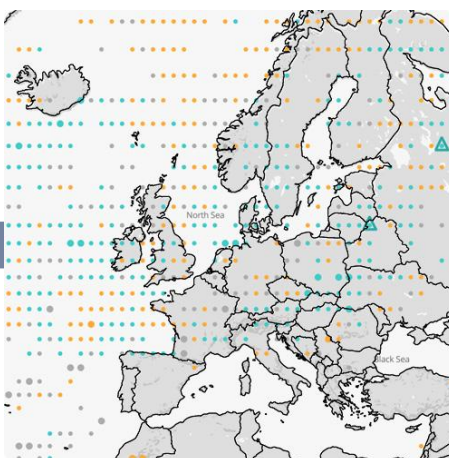
Maps show areas where  
skill (fRPSS) > 0

17 - 23 August



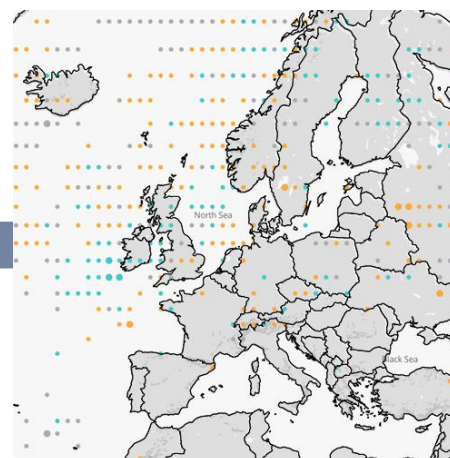
High probability of **below normal** precipitation in Scandinavia and eastern Europe; **high** probability of **above normal** precipitation in central Europe (20% skill) with risk of high extremes in the Balkans.

24 - 30 August



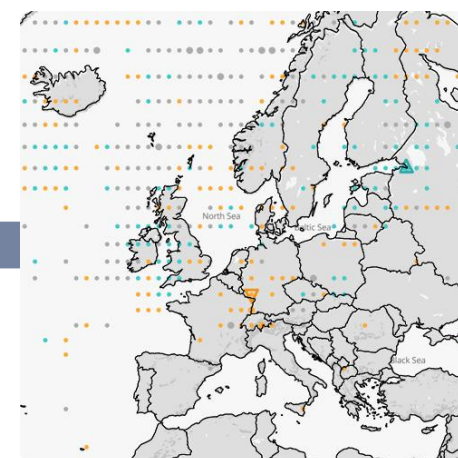
Forecasts show no clear signals; probabilities similar to climatology.

31 August - 6 September



Forecasts show no clear signals; probabilities similar to climatology.

7 - 13 September



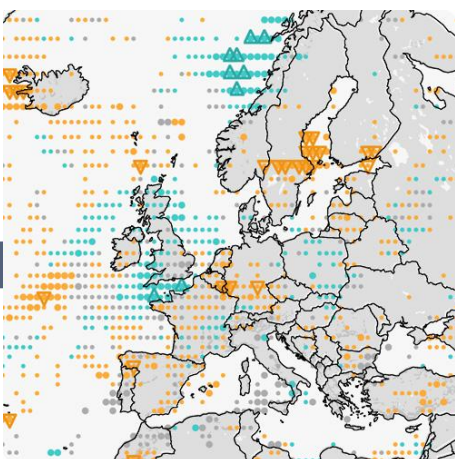
Forecasts show no clear signals; probabilities similar to climatology.

## SEASONAL

Prediction system used:  
ECMWF SEAS5

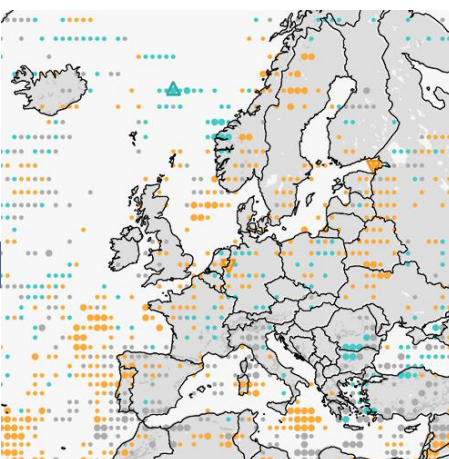
Maps show areas where  
skill (fRPSS) > 0

September 2020



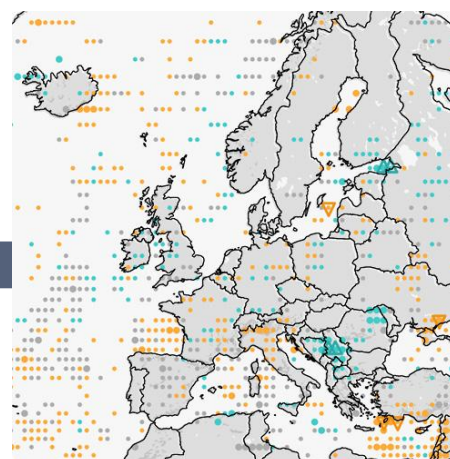
High probability of **above normal** precipitation in the west coast of Norway and the UK; **high** probability of **below normal** precipitation in southern Sweden and areas of central Europe (10% skill).

October 2020



Generally **enhanced** probability of **below normal** precipitation across Europe, except for west coast of Norway and the Black Sea (10% skill).

November 2020



**Enhanced** probability of **below normal** precipitation in the Alpine region and the Bay of Biscay. **High** probability of **above normal** precipitation in the Balkans (<10% skill).

Browse the global  
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# Solar radiation forecasts

## Predicted tercile

- Above
- Normal
- Below

## Probability range

- 50% to 100%
- 34% to 49%

## Extremes

- ▲ Max (p90)
- ▼ Min (p10)

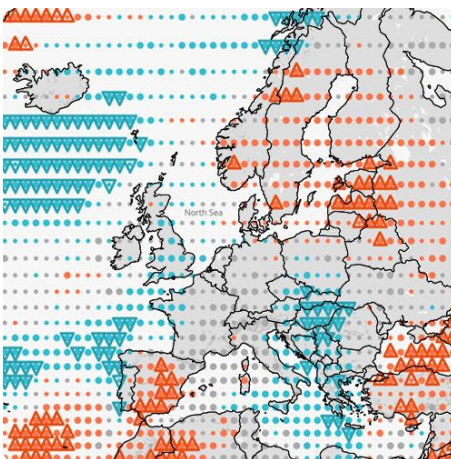
## Legend

### SUB-SEASONAL

Prediction system used:  
ECMWF-Ext-ENS

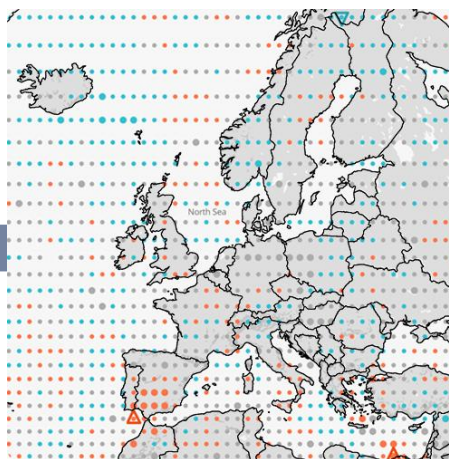
Maps show areas where  
skill (fRPSS) > 0

17 - 23 August



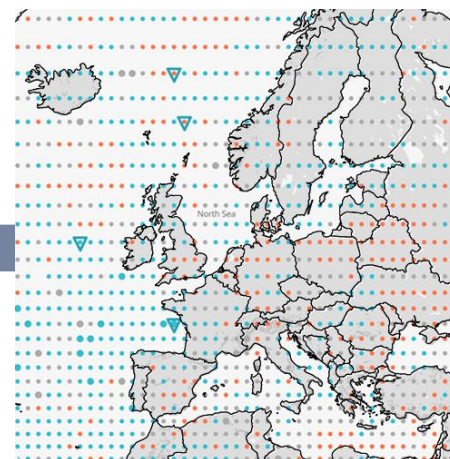
**Very high** probability of **above normal** radiation in Scandinavia, eastern Europe and Spain (30-50% skill), risk of high extremes in Estonia, Latvia and Spain. **Very high** probability of **below normal** radiation in the Balkans, Italy, Hungary and Slovakia.

24 - 30 August



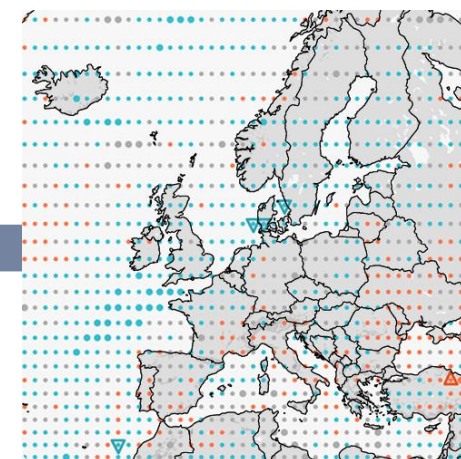
**High** probability of **above normal** radiation in the south of Spain (40% skill).

31 August - 6 September



Generally **enhanced** probability of **above normal** solar radiation towards the east of Europe (10-30% skill).

7 - 13 September



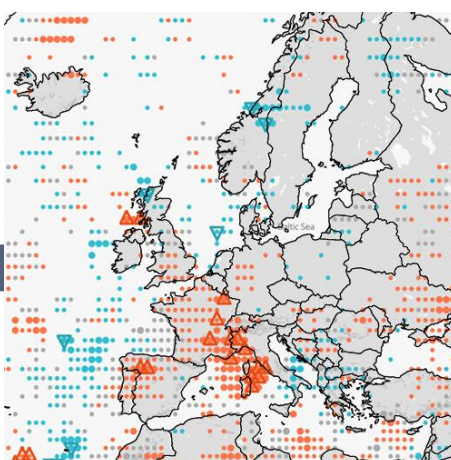
Generally **enhanced** probability of **below normal** radiation towards the north and west of Europe (10-30% skill).

### SEASONAL

Prediction system used:  
ECMWF SEAS5

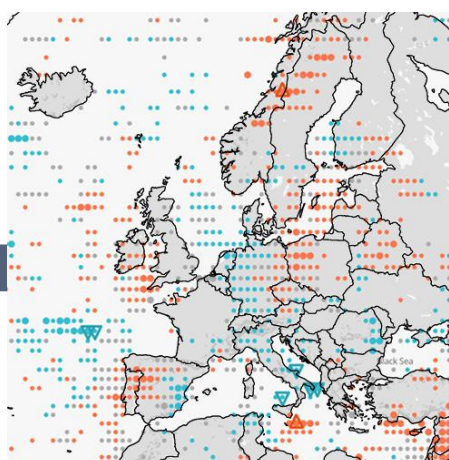
Maps show areas where  
skill (fRPSS) > 0

September 2020



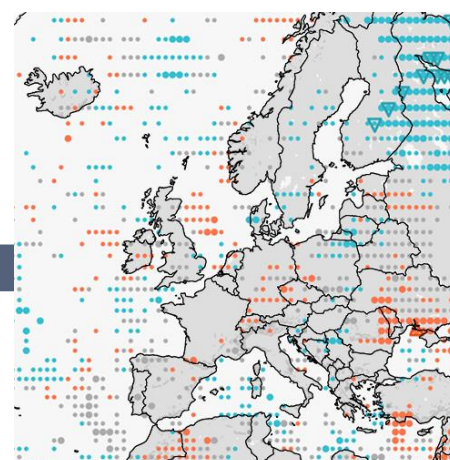
**High** probability of **above normal** solar radiation in the west of Spain, south of France and north of Italy (10% skill).

October 2020



**High** probability of **above normal** solar radiation in northern parts of Scandinavia and west of the Iberian Peninsula (5-10% skill).

November 2020



**High** probability of **below normal** solar radiation in Finland (<5% skill).

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## USER GUIDE

### PREDICTED TERCILE

- 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.

### PROBABILITY RANGE

- 50% to 100%
- 34% to 49%

As seen in the DST, regions where the predicted probability of the most likely tercile equals or is higher 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.

### EXTREMES

- ▲ Max (p90)
- ▼ Min (p10)

To provide information about the probability of having very high or very low climate conditions, the DST 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 climatological period. Extreme events are shown with a triangle symbol when the probability of an extreme event occurring is over 25%.

### SKILL SCORES

- Fair >0% to <15%
- Good 15-30%
- Very good >30%

In the maps presented in this outlook, only regions with positive skill are shown. Skill scores below 0 are defined as unskilful, those equal to 0 are equal to the climatology forecast, and anything above 0 is an 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 and Brier Skill Scores for extremes are used.



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