

OUTLOOK

18 May 2020

with

Sub-seasonal forecasts

for the weeks of
18 - 24 May, 25 - 31 May,
1 - 7 June, and 8 - 14 June 2020

&

Seasonal forecasts

for the months of
June, July and August 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

This outlook presents forecasts available on the DST on the 18th of May 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

Hot summer in eastern Mediterranean

Above normal temperatures are expected across the Mediterranean during the last weeks of spring, with hot temperatures likely to persist in eastern Mediterranean during summer.

Hot and dry May for western Europe

Western European countries are expected to experience hot and dry conditions in the last two weeks of May, and above normal solar radiation. There is a risk of high extremes in temperature and solar radiation in Iceland, the UK, France, and the Iberian peninsula. Below normal precipitation is likely to persist in western Europe throughout the summer period.

Cold May in northeastern Europe

Low temperatures and solar radiation are expected in northeastern European regions in the last two weeks of May, with a risk of low extremes. In the summer months, above normal temperatures are predicted in Ukraine, Romania and the Balkans.

Lower wind speeds in the summer season

In the last weeks of May, wind speeds below the normal conditions are expected in the Atlantic coast region. By contrast, higher than normal wind speeds are expected in southern and eastern Europe, particularly in Turkey and the Balkans.

Wind speed patterns are unclear for the summer months, with some probability of below normal winds in mainland Europe. Above normal winds are predicted in Turkey for June and July.

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



Subscribe to the outlooks and register to the DST at:

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.



Temperature forecasts

Predicted tercile

- Above
- Normal
- Below

Probability range

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

Extremes

- ▲ Max (p90)
- ▼ Min (p10)

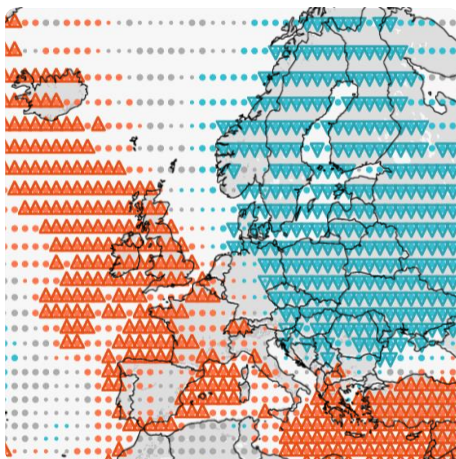
Legend

SUB-SEASONAL

Prediction system used:
ECMWF-Ext-ENS

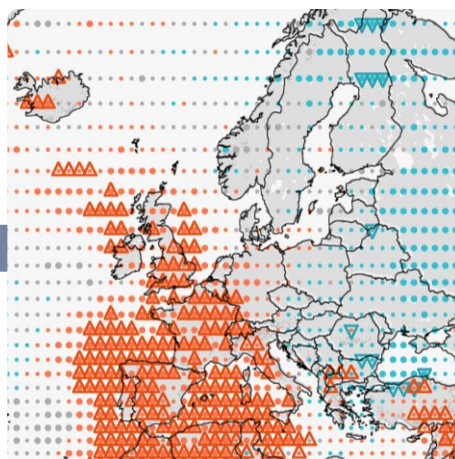
Maps show areas where
skill (FRPSS) > 0

18 - 24 May



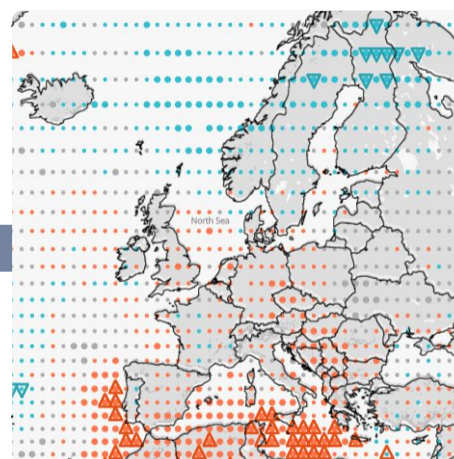
High probability of **above normal** temperatures in western and southern Europe, with risk of high extremes. **Very high** probability of **below normal** temperatures in northern and eastern Europe, with risk of low extremes (~50% skill).

25 - 31 May



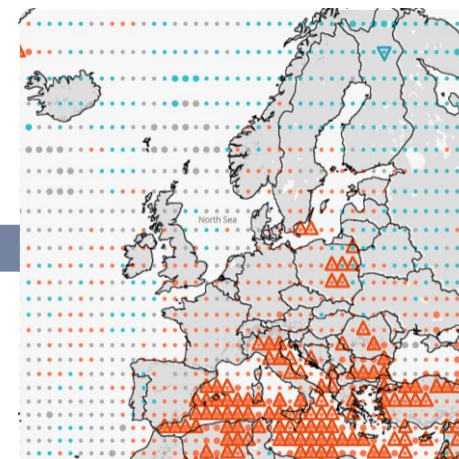
High probability of **above normal** temperatures in western and southern Europe, with risk of high extremes. **High** probability of **below normal** temperatures in northern and eastern Europe (20-30% skill).

1 - 7 June



High probability of **above normal** temperatures in the Mediterranean and some areas of central Europe. In Scandinavia, **high** probability of **below normal** temperatures persists (20-30% skill).

8 - 14 June



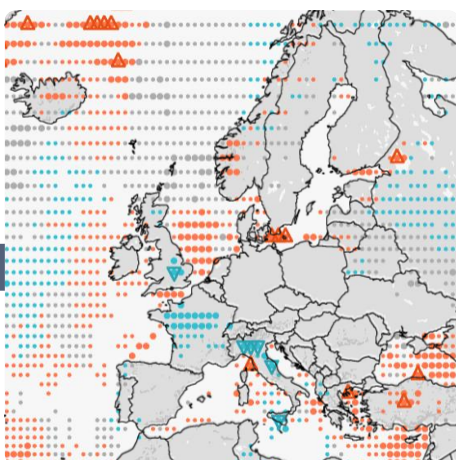
Enhanced probability of **above normal** temperatures in most of Europe, except in Scandinavia, with some risk of high extremes in the Mediterranean region (~10% skill).

SEASONAL

Prediction system used:
ECMWF SEAS5

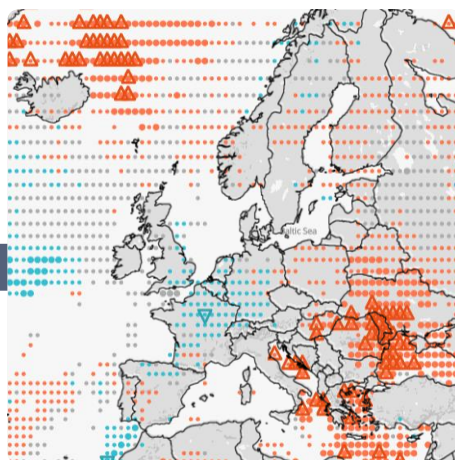
Maps show areas where
skill (FRPSS) > 0

June 2020



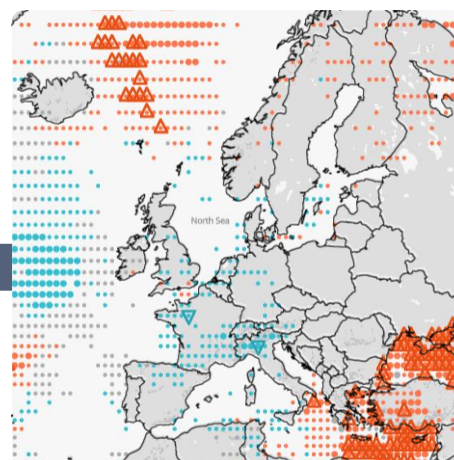
High probability of **below normal** temperatures in parts of France and Italy (<10% skill).

July 2020



Very high probability of **above normal** temperatures in Greece, Romania and Bulgaria (up to 10% skill).

August 2020



High probability of **above normal** temperatures in eastern Mediterranean and Black Sea, and **enhanced** probability of **below normal** temperatures in France and Italy.

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

www.S2S4E.eu/dst



Wind speed forecasts

Predicted tercile

- Above
- Normal
- Below

Probability range

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

Extremes

- ▲ Max (p90)
- ▼ Min (p10)

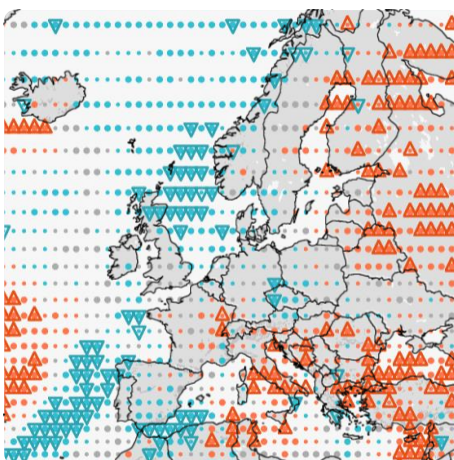
Legend

SUB-SEASONAL

Prediction system used:
ECMWF-Ext-ENS

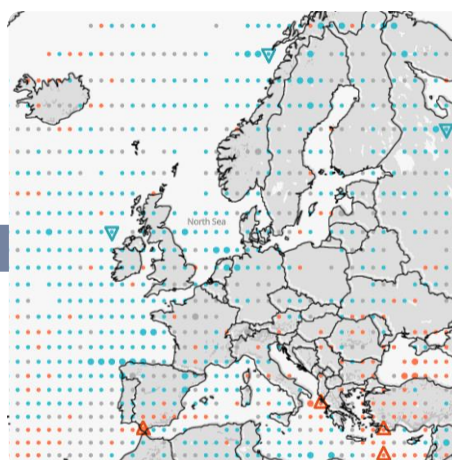
Maps show areas where
skill (FRPSS) > 0

18 - 24 May



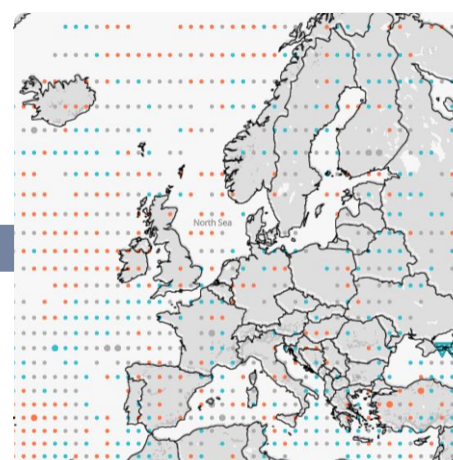
High probability of **above normal** wind speed in southern and eastern Europe, with risk of high extremes. **High** probability of **below normal** wind speed in Atlantic coast countries, with risk of low extremes in the North Sea (~20% skill).

25 - 31 May



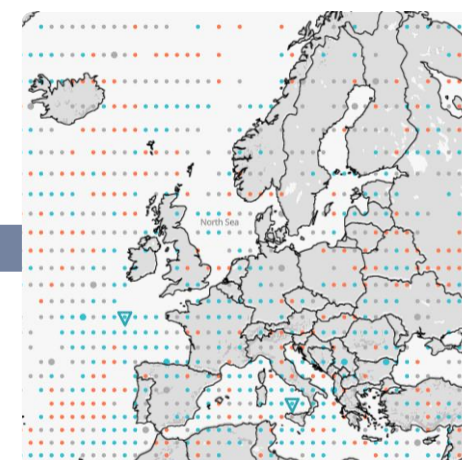
Enhanced probability of **above normal** wind speed in Turkey and the Balkans, and **enhanced** or **high** probability of **below normal** wind speed in countries in the Atlantic coast (<15% skill).

1 - 7 June



Probabilities generally similar to climatology (<5% skill).

8 - 14 June



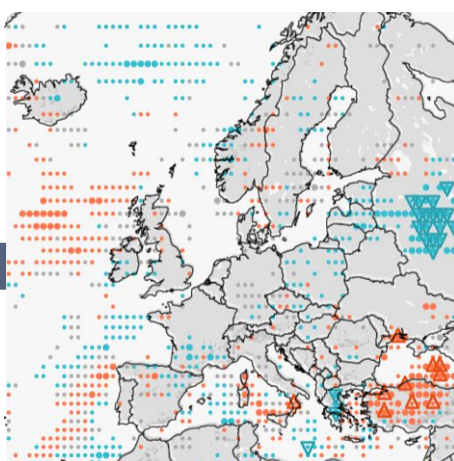
Enhanced probability of **below normal** wind speed in southern countries (<10% skill).

SEASONAL

Prediction system used:
ECMWF SEAS5

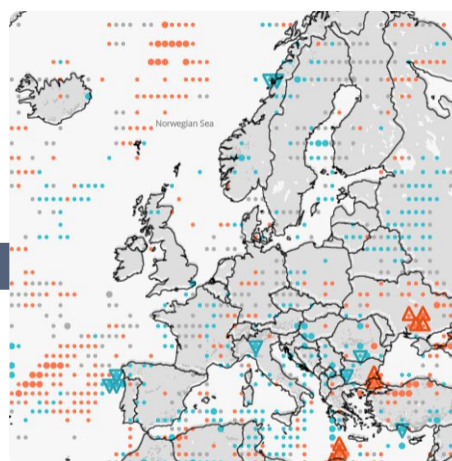
Maps show areas where
skill (FRPSS) > 0

June 2020



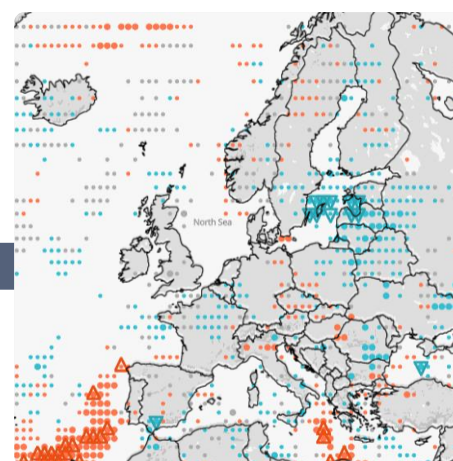
High probability of **above normal** wind speed in Turkey (>10% skill).

July 2020



High probability of **above normal** wind speed in parts of Turkey (~10% skill).

August 2020



High probability of **below normal** wind speed in the Baltic countries (~10% skill).

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

www.S2S4E.eu/dst



Precipitation forecasts

Predicted tercile

- Above
- Normal
- Below

Probability range

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

Extremes

- Max (p90)
- Min (p10)

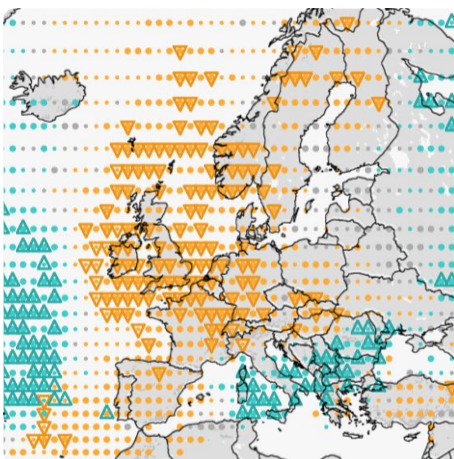
Legend

SUB-SEASONAL

Prediction system used:
ECMWF-Ext-ENS

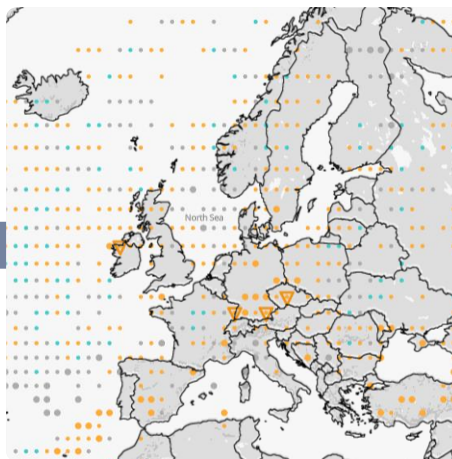
Maps show areas where
skill (FRPSS) > 0

18 - 24 May



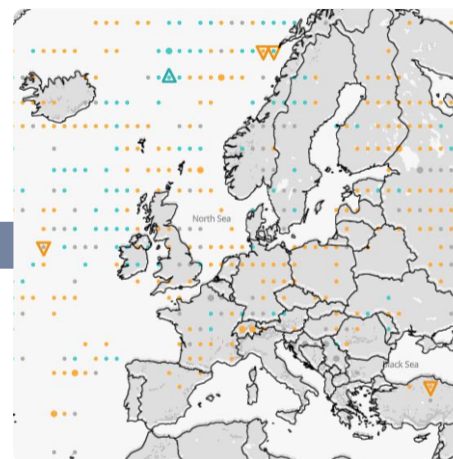
High or **very high** probability of **below normal** precipitation in most of Europe, particularly in Scandinavia, with risk of low extremes in central and northern Europe. **High** probability of **above normal** precipitation in the Balkans (10-30% skill).

25 - 31 May



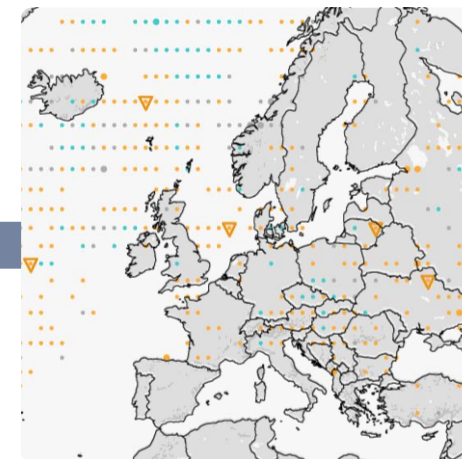
The **high** probabilities of **below normal** precipitation persist across Europe, however with reduced probabilities (<10% skill).

1 - 7 June



Enhanced probability of **below normal** precipitation in eastern regions, however skill is low (<5% skill).

8 - 14 June



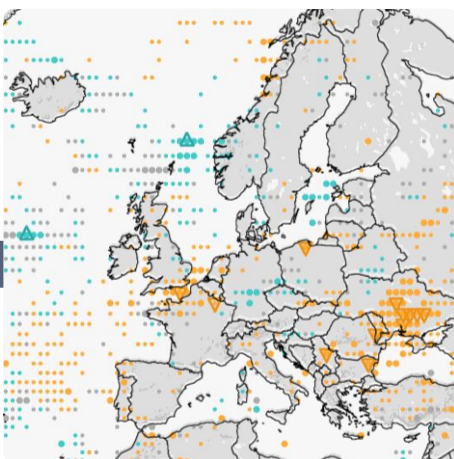
Enhanced probability of **below normal** precipitation, however skill is very low (<3% skill).

SEASONAL

Prediction system used:
ECMWF SEAS5

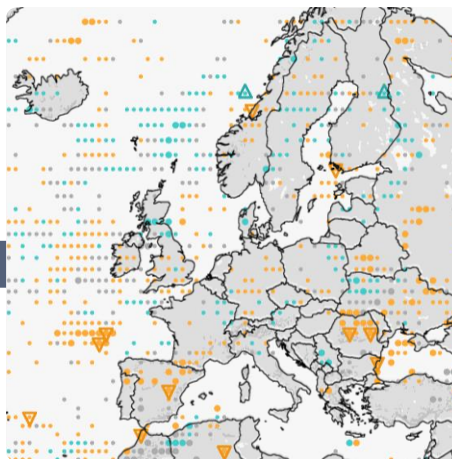
Maps show areas where
skill (FRPSS) > 0

June 2020



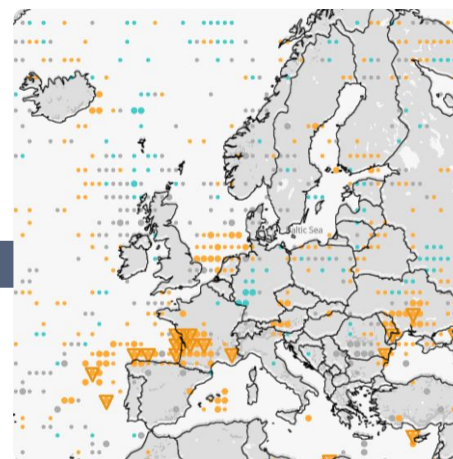
High probability of **below normal** precipitation in the English Channel area, and in Moldova and Ukraine (>5% skill).

July 2020



High probability of **below normal** precipitation in parts of Spain and parts of Romania (~5% skill).

August 2020



High probability of **below normal** precipitation in southern France and northern Spain (>10% skill).

Browse the global
forecasts in the DST:

www.S2S4E.eu/dst



Solar radiation forecasts

Predicted tercile

- Above
- Normal
- Below

Probability range

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

Extremes

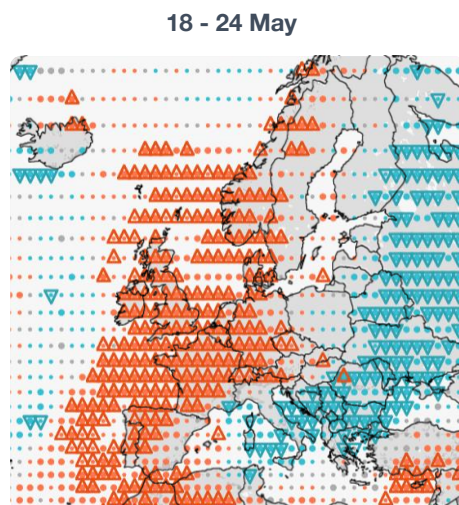
- ▲ Max (p90)
- ▼ Min (p10)

Legend

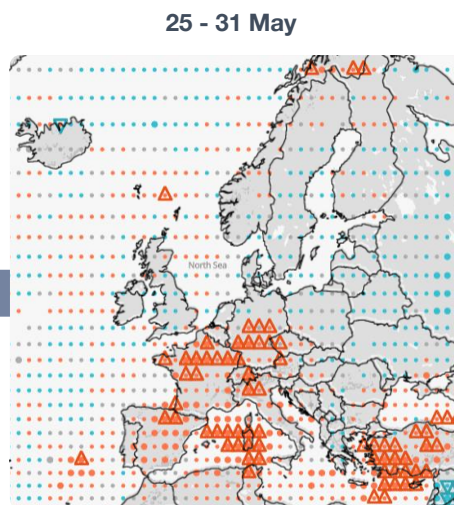
SUB-SEASONAL

Prediction system used:
ECMWF-Ext-ENS

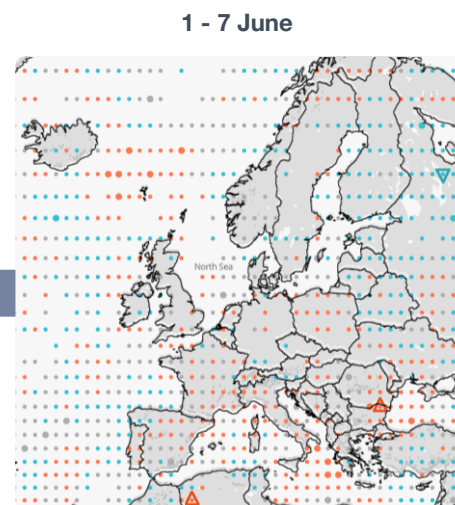
Maps show areas where
skill (FRPSS) > 0



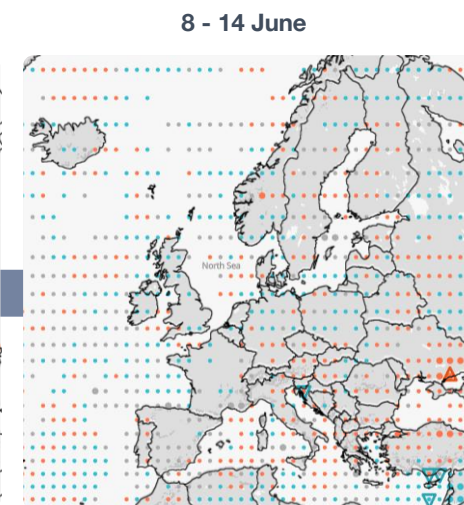
High probability of **above normal** solar radiation in western and northern Europe, with risk of extremes. **High** probability of **below normal** radiation in eastern countries, with risk of low extremes (20-30% skill).



Enhanced to **high** probability of **above normal** solar radiation in southern Europe, with risk of extremes in France, Germany, Spain, Italy and Turkey (10-20% skill).



Enhanced probability of **above normal** solar radiation in southern and central Europe (<10% skill).

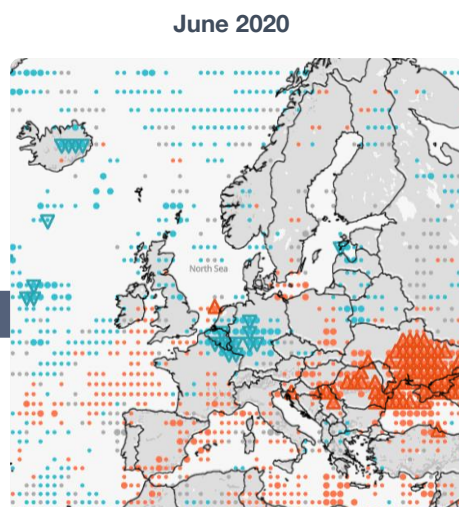


Enhanced probability of **above normal** solar radiation in central areas of Europe (<10% skill).

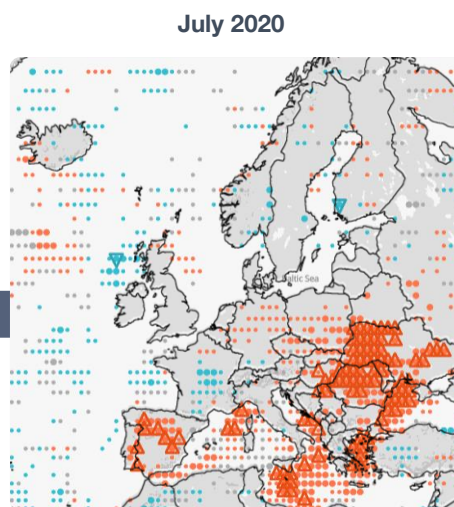
SEASONAL

Prediction system used:
ECMWF SEAS5

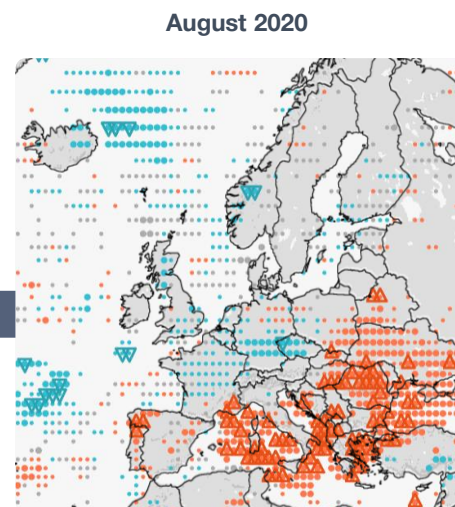
Maps show areas where
skill (FRPSS) > 0



High probability of **below normal** solar radiation in parts of Germany, Belgium and northern France. **Very high** probability of **above normal** solar radiation in Ukraine and Romania (>15% skill).



High probability of **above normal** radiation in the Mediterranean area, and **very high** probability in Ukraine and Romania.



High probability of **above normal** radiation in the Mediterranean area, and **very high** probability in Greece, Bulgaria, Ukraine and Romania.

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

www.S2S4E.eu/dst

OUTLOOK USER GUIDE

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



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.

This outlook presents forecasts available on the DST on the 18th of May 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.



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



Subscribe to the outlooks and register to the DST at:

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.