

OUTLOOK

15 April 2020

with

Sub-seasonal forecasts

for the weeks of
13 - 19 April, 20 - 26 April,
27 April - 3 May, and 4 - 10 May 2020

&

Seasonal forecasts

for the months of
May, June and July 2020

The beta version of S2S4E Decision Support Tool (DST) 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

OUTLOOK 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 (48 for NCEP CFSv2 and 51 for 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

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 15th of April 2020 for the coming four weeks and next three months. These S2S4E forecasts were made by postprocessing the climate prediction systems NCEP CFSv2 (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



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Temperature forecasts

Predicted tercile

- Above
- Normal
- Below

Probability range

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

Extremes

- ▲ Max (p90)
- ▼ Min (p10)

Legend

Probability terms

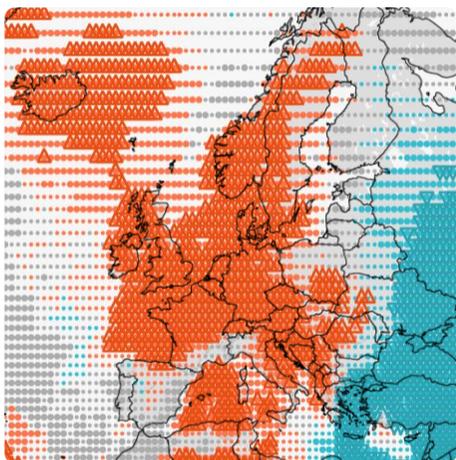
- Enhanced** : 34% - 49%
- High**: 50% - 70%:
- Very High**: Greater than 70%

SUB-SEASONAL

Prediction system used:
NCEP CFSv2

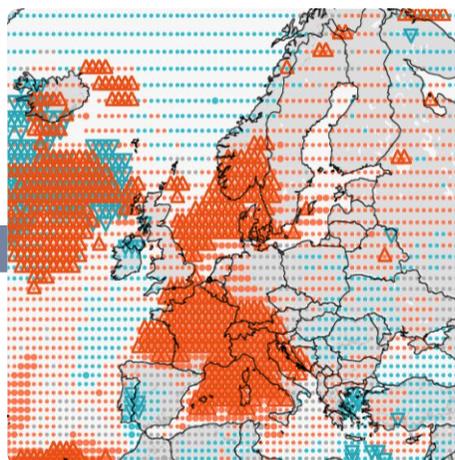
Maps show areas where
skill (FRPSS) > 0

13 - 19 April



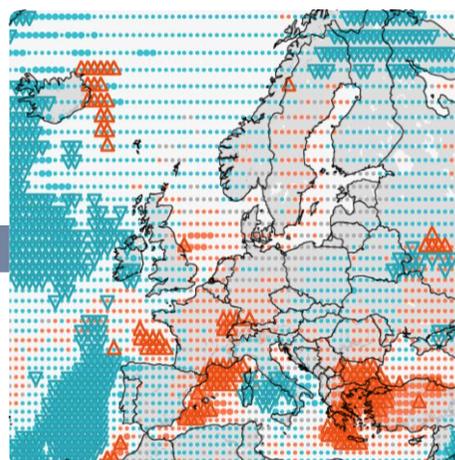
High probability of **above normal** temperatures in central and northern Europe, with risk of high extremes. **Enhanced** probability of **below normal** temperatures in eastern countries (~50% skill).

20 - 26 April



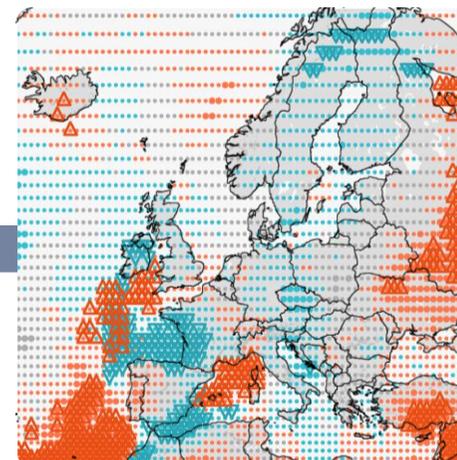
High probability of **above normal** temperatures in central and northern Europe (particularly in France, Switzerland and Belgium). Risk of high extremes in central Europe and the North Sea (~20% skill).

27 April - 3 May



High probability of **above normal** temperatures in eastern and western Mediterranean, affecting Greece, Bulgaria and Turkey (~20% skill).

4 - 10 May



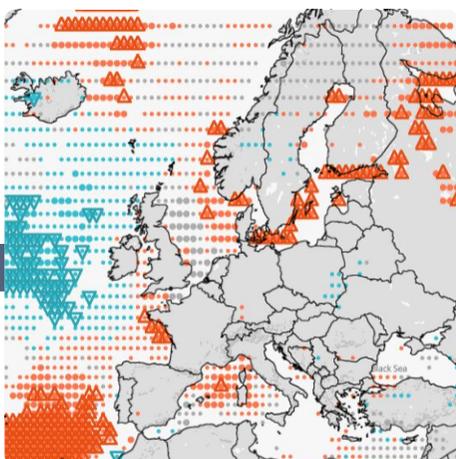
High probability of **above normal** temperatures in Turkey and Ukraine. **Enhanced** probability of **below normal** temperatures in central Europe, with **high** probability in Austria and Slovenia (10-20% skill).

SEASONAL

Prediction system used:
ECMWF SEAS5

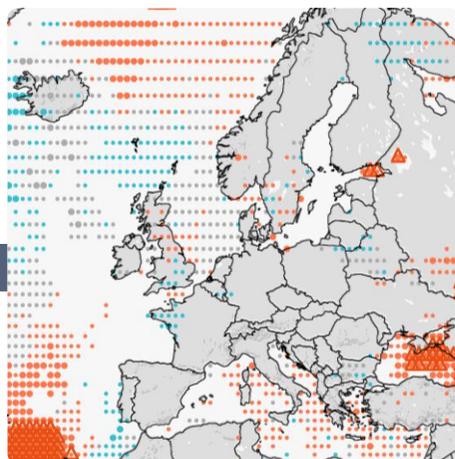
Maps show areas where
skill (FRPSS) > 0

May 2020



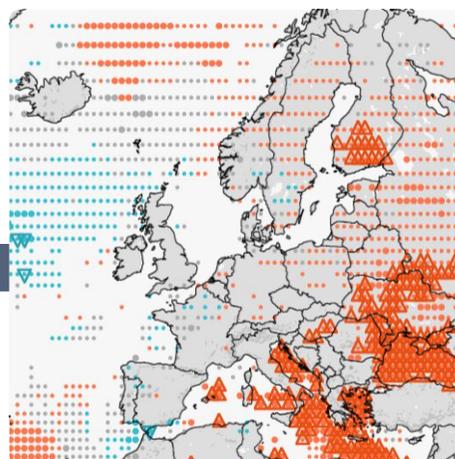
High probability of **above normal** temperatures in the Baltic sea region towards Finland. Forecasts do not show a clear signal over mainland Europe.

June 2020



High probability of **above normal** temperatures in eastern Europe.

July 2020



High probability of **above normal** temperatures persists in eastern Europe and parts of Scandinavia.

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

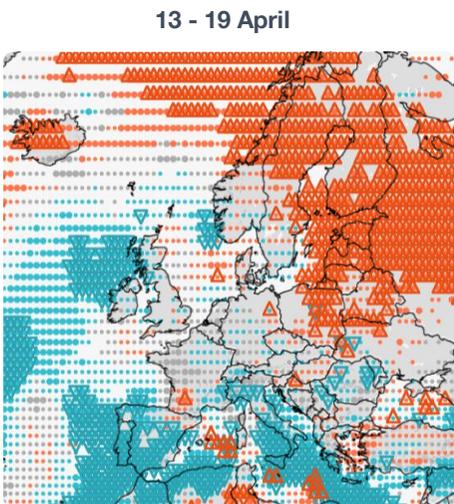
Probability terms

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

SUB-SEASONAL

Prediction system used:
NCEP CFSv2

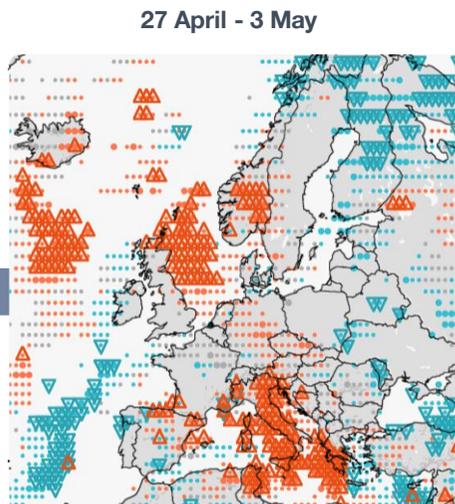
Maps show areas where
skill (FRPSS) > 0



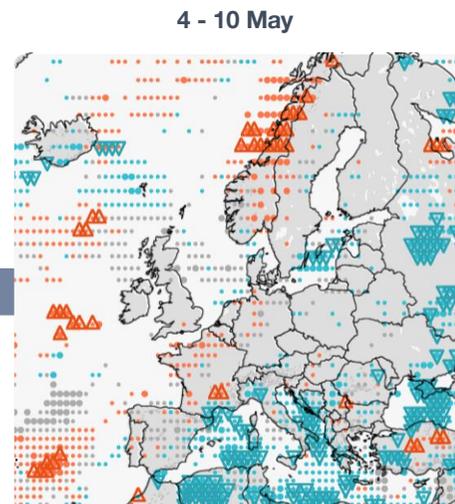
High probability of **above normal** wind speeds in the Nordic countries (~20% skill). **High** probability of **below normal** wind speeds in the Mediterranean.



High probability of **above normal** wind speeds in the Nordic countries, and the Baltic and North Seas (<10% skill).



Enhanced probability of **above normal** wind speeds in the North Sea, Italy and the Balkan countries (<5% skill).

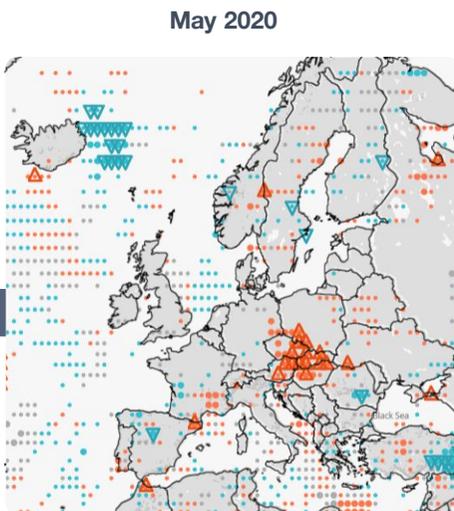


High probability of **above normal** wind speeds in Norway and Sweden (~10% skill).

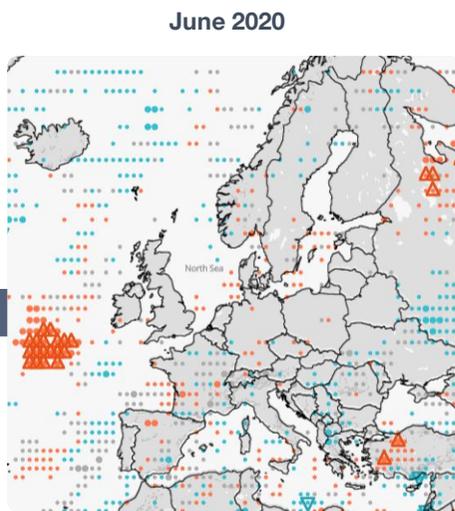
SEASONAL

Prediction system used:
ECMWF SEAS5

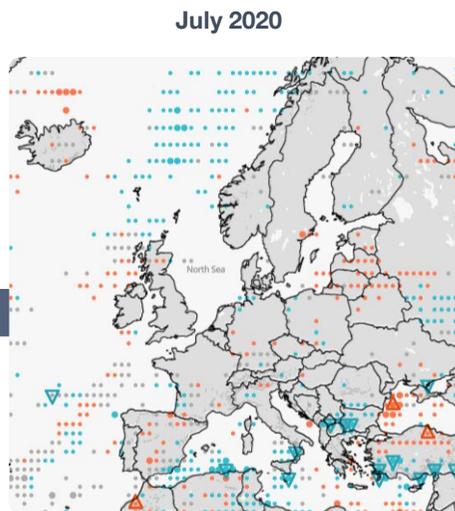
Maps show areas where
skill (FRPSS) > 0



Enhanced to high probability of **above normal** wind speeds in central Europe, especially in Austria and Czech Republic.



Enhanced probability of **above normal** wind speeds in southern Scandinavia and the Baltic region.



Enhanced probability of **above normal** wind speeds persists in the Baltic sea region. **High** probability of **below normal** winds over many regions in the Mediterranean.

Browse the global forecasts in the DST:

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Precipitation forecasts

Predicted tercile

- Above
- Normal
- Below

Probability range

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

Extremes

- ▲ Max (p90)
- ▼ Min (p10)



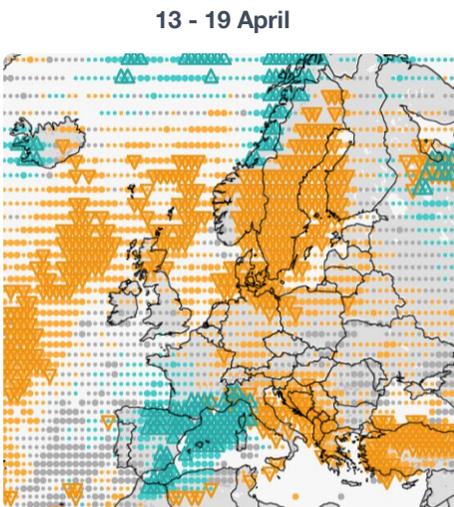
Probability terms

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

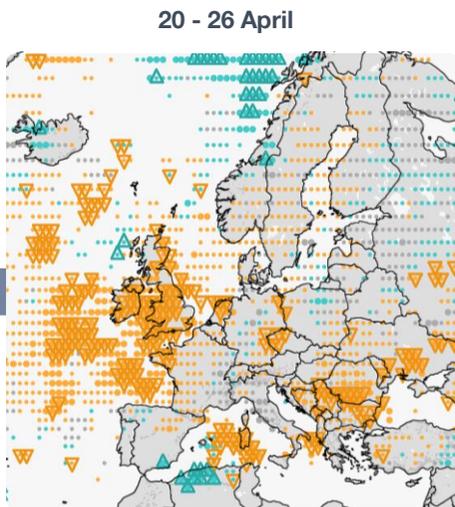
SUB-SEASONAL

Prediction system used:
NCEP CFSv2

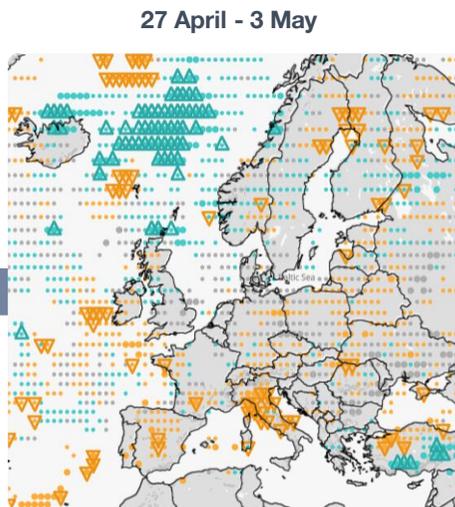
Maps show areas where
skill (FRPSS) > 0



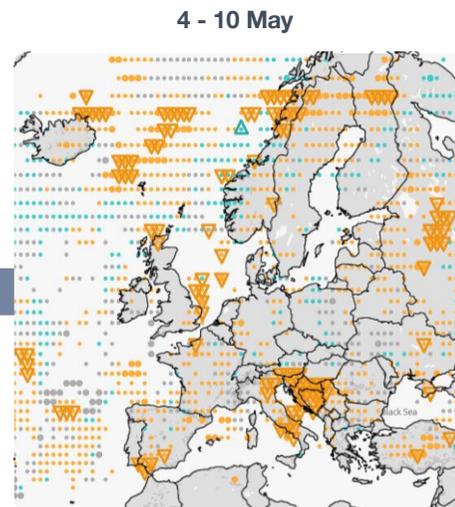
High probability of **below normal** precipitation in most of Europe, with risk of low extremes in Sweden and the Balkans. **Very high** probability of **above normal** precipitation in Spain (40% skill), with risk of high extremes.



High probability of **below normal** precipitation in the UK and Eastern Europe (<10% skill), with some risk of low extremes.



Probabilities generally similar to climatology.

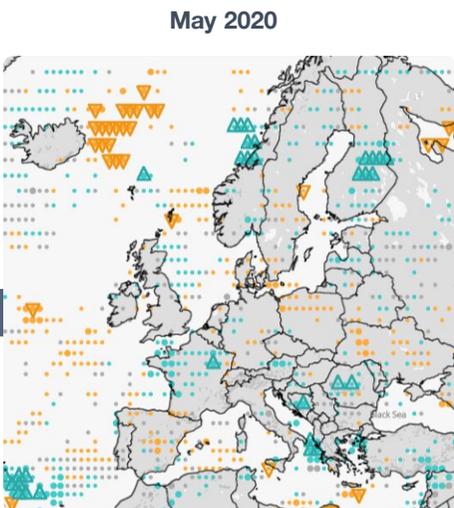


High probability of **below normal** precipitation in the Balkans and northern Scandinavia (<10% skill), with risk of low extremes.

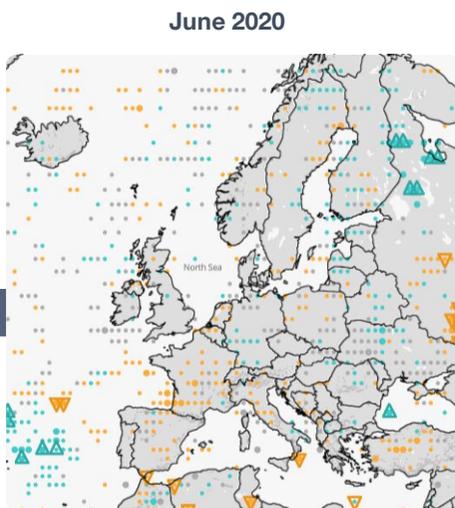
SEASONAL

Prediction system used:
ECMWF SEAS5

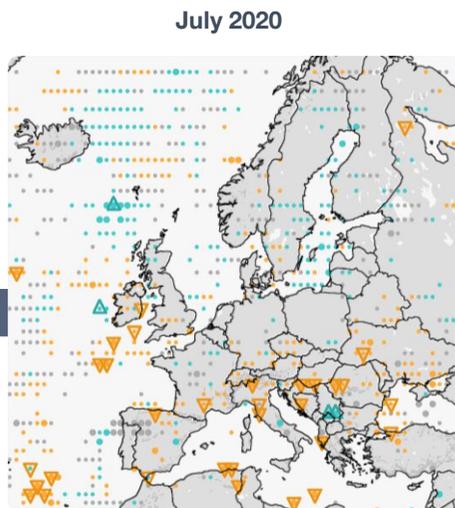
Maps show areas where
skill (FRPSS) > 0



High probability of **above normal** precipitation in western Scandinavia, France and the Balkan peninsula.



High probability of **below normal** precipitation across the Mediterranean.



Enhanced probability of **above normal** precipitation in Scandinavia.

Browse the global forecasts in the DST:

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Predicted tercile

- Above
- Normal
- Below

Probability range

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

Extremes

- ▲ Max (p90)
- ▼ Min (p10)

Legend

Probability terms

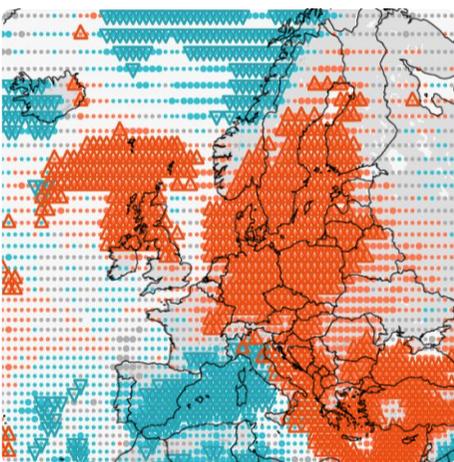
- Enhanced : 34% - 49%
- High: 50% - 70%:
- Very High: Greater than 70%

SUB-SEASONAL

Prediction system used:
NCEP CFSv2

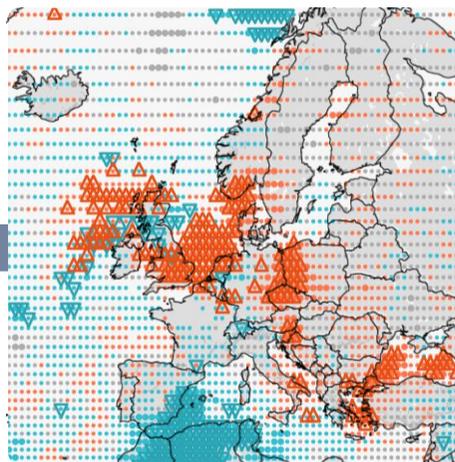
Maps show areas where
skill (FRPSS) > 0

13 - 19 April



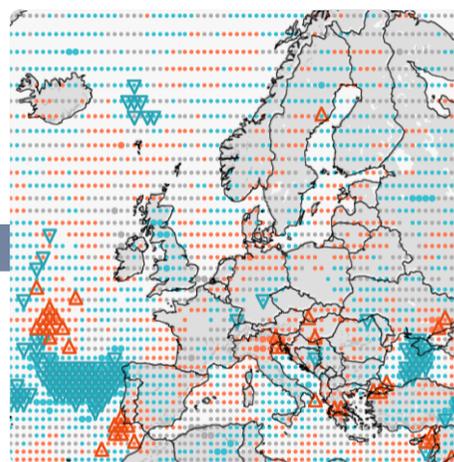
High or very high probability of above normal solar radiation in most of Europe, with risk of high extremes. Very high probability of below normal solar radiation in Spain and Iceland (10-40% skill).

20 - 26 April



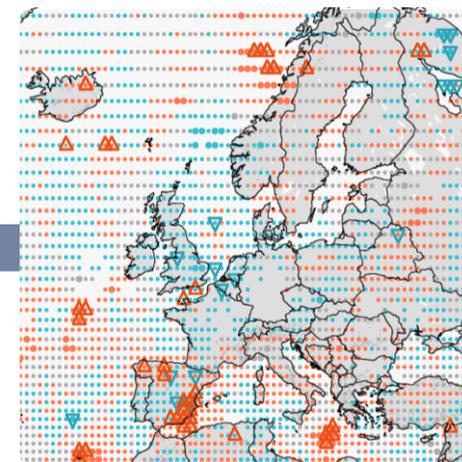
High probability of above normal solar radiation in central Europe, with risk of high extremes in the North Sea region.

27 April - 3 May



Probabilities generally similar to climatology.

4 - 10 May



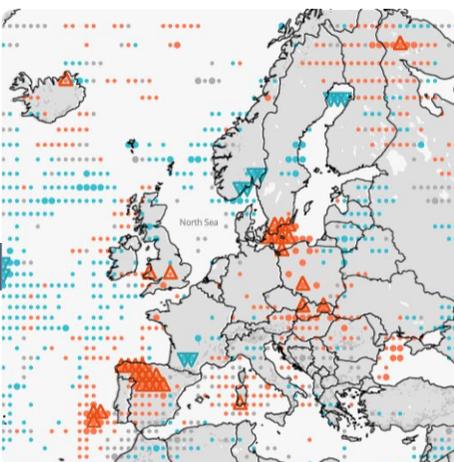
Enhanced probability of below normal solar radiation in central Europe (<20% skill).

SEASONAL

Prediction system used:
ECMWF SEAS5

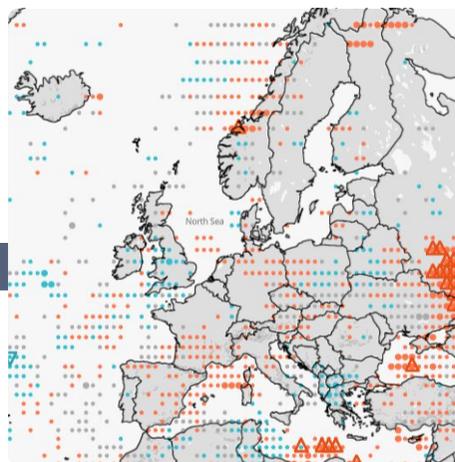
Maps show areas where
skill (FRPSS) > 0

May 2020



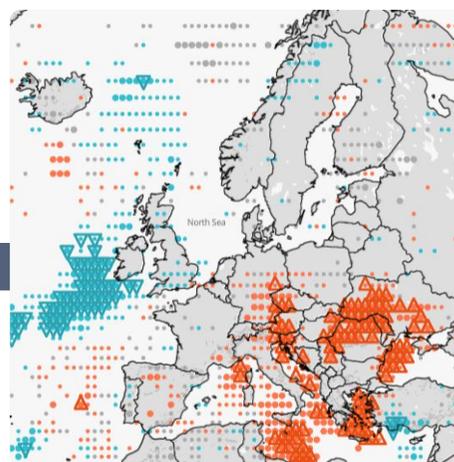
High probability of above normal solar radiation in the Iberian Peninsula, the Carpathian mountain region, and the Baltic sea. High probability of below normal solar radiation in Scandinavia.

June 2020



Enhanced to high probability of above normal solar radiation in western Mediterranean, parts of central Europe and the Black sea region.

July 2020



High probability of above normal solar radiation in central Mediterranean, the Balkans and Germany. High probability of below normal solar radiation in the British isles.

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