ForeSight 180 Day Outlook

January to June 2025

Issued by Senior Forecaster Roar Teigen
Issued: 19 December 2024
Next forecast: Mid to late January 2025

Note:
An explanation of all the elements and the indices are found on the last pages of the report.

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Executive Summary:

This winter, the ENSO (El Niño/La Niña) and QBO systems are in opposite phases compared to 2023/2024. Alongside an Atlantic Tripole is positive at least first half of the Winter which also is in contrast to last Winter. So we could defenitly not compare with that one.

Models cleary indicate a wet and mild through the whole Winter over the Nordic. While dry and mild over Central Europe. Polar vortex development is very important for how the weather pattern evolve during the Winter and at leas its likely that it will normalize from January, and also fair chance that it could be weaker than normal some periods for the rest of the Winter. Positive tripole support drier and colder than normal over the Nordic and so do the weak La Niña conditions. My conclusion is that its likely will not be as mild and wet anomalies that we will have for December for the rest of the Winter, but still slightly wet and mild is the most likely outcome of January with February possibly could become more normal. For Central Europe normal to slightly dry and slightly mild

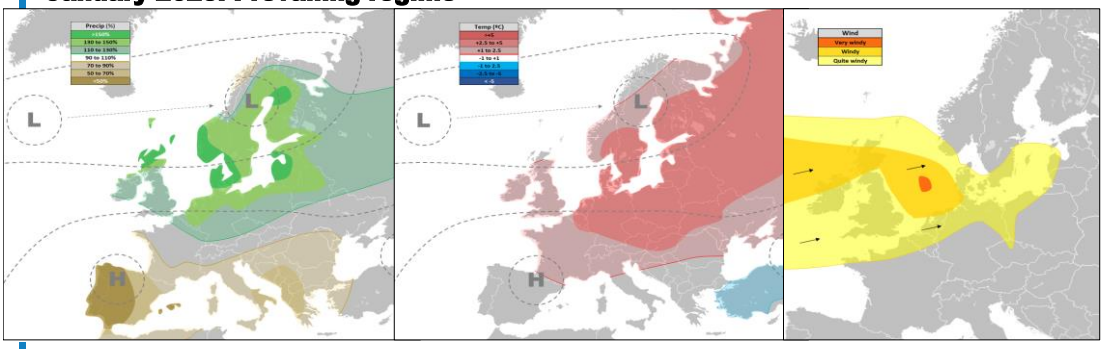
Prevailing weather regime

	Region	Temperature						Precipitation					
		J	F	M	A	M	J	J	F	M	A	M	J
	Nordic												
	Continent												
Norway	NO1 (SE)												
Norway	NO2 (SW)												
Norway	NO3 (C)												
Norway	NO4 (O)												
Norway	NO5 (W)												
Sweden	SE1												
Sweden	SE2												
Sweden	SE3												
Sweden	SE4												
NC	Norway												
NC	Sweden												
NC	Finland												
NC	Denmark												
CE	Germany												
CE	France												
CE	Switzerland												
CE	Austria												

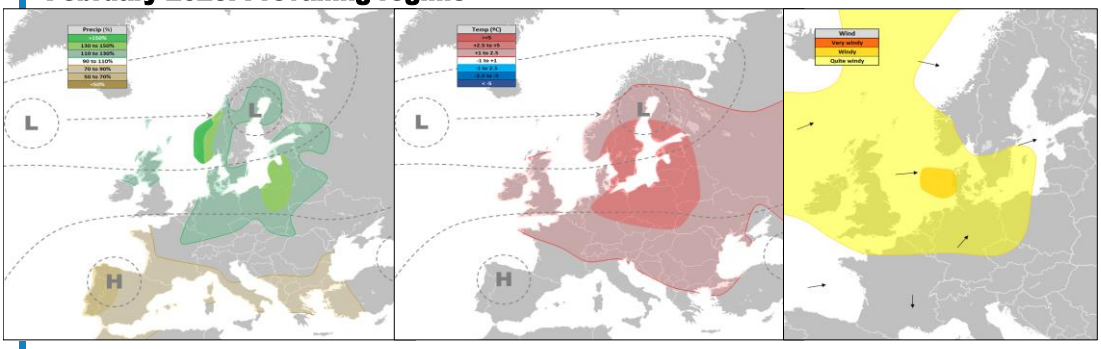
2nd most prevailing regime

	Region	Temperature						Precipitation					
		J	F	M	A	M	J	J	F	M	A	M	J
	Nordic												
	Continent												
Norway	NO1 (SE)												
Norway	NO2 (SW)												
Norway	NO3 (C)												
Norway	NO4 (O)												
Norway	NO5 (W)												
Sweden	SE1												
Sweden	SE2												
Sweden	SE3												
Sweden	SE4												
NC	Norway												
NC	Sweden												
NC	Finland												
NC	Denmark												
CE	Germany												
CE	France												
CE	Switzerland												
CE	Austria												

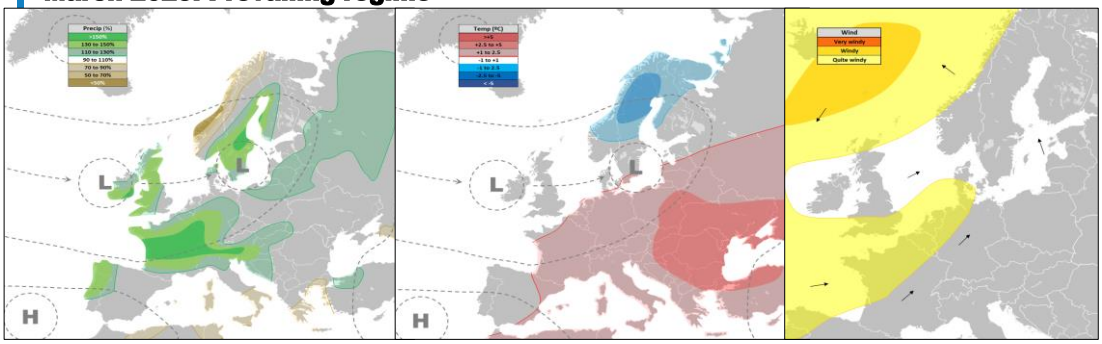
January 2025: Prevailing regime



February 2025: Prevailing regime

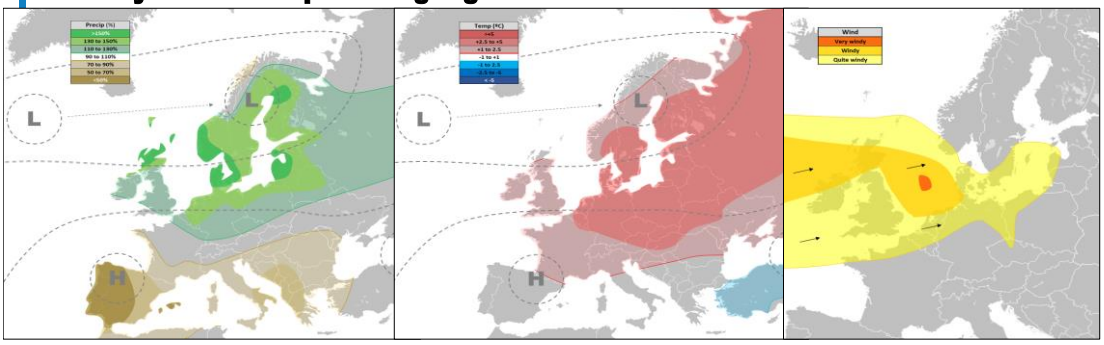


March 2025: Prevailing regime



January 2025: Most prevailing regime

Frequency: 50%



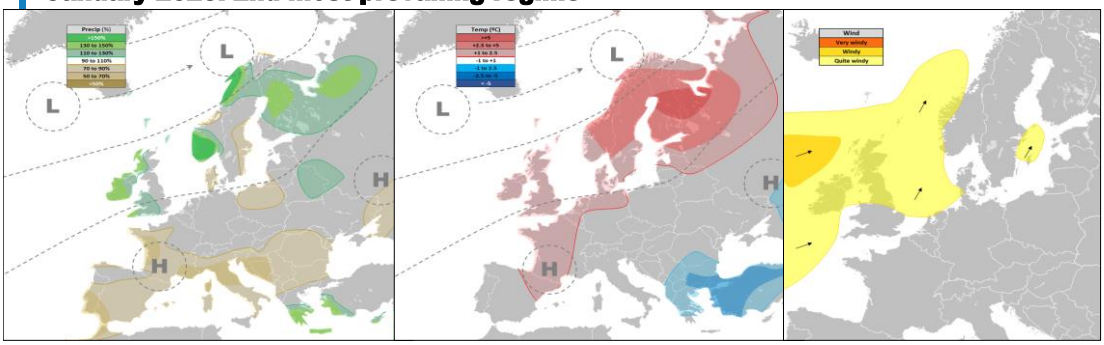
Mean values	NC	CE
Precipitation	A	N
Temperature	A	A
Windy days		78%

Previous occurrences of this scenario	
Occurrences since 2010	23%
Occurrences 2000-2009	38%
Occurrences 1979-1999	24%

Occurrences for teleconnections			
QBO	31%	OSCE	32%
Atl. Tripole	27%	AO	31%
ONI	24%	Analog	21%
Solar cycle	26%		

January 2025: 2nd most prevailing regime

Frequency: 30%



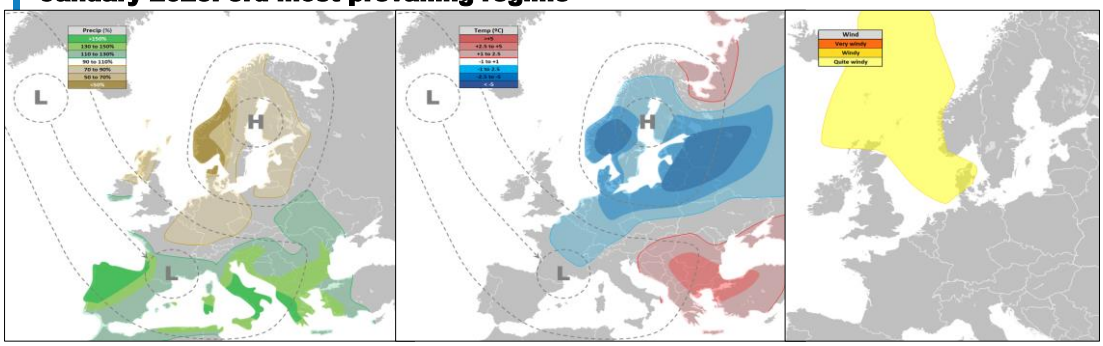
Mean values	NC	CE
Precipitation	SA	SB
Temperature	SA	N
Windy days		27%

Previous occurrences of this scenario	
Occurrences since 2010	29%
Occurrences 2000-2009	12%
Occurrences 1979-1999	19%

Occurrences for teleconnections			
QBO	34%	OSCE	34%
Atl. Tripole	27%	AO	29%
ONI	36%	Analog	39%
Solar cycle	23%		

January 2025: 3rd most prevailing regime

Frequency: 15%



Mean values	NC	CE
Precipitation	B	SA
Temperature	B	SB
Windy days		21%

Previous occurrences of this scenario	
Occurrences since 2010	25%
Occurrences 2000-2009	10%
Occurrences 1979-1999	24%

Occurrences for teleconnections			
QBO	34%	OSCE	34%
Atl. Tripole	27%	AO	29%
ONI	36%	Analog	39%
Solar cycle	23%		

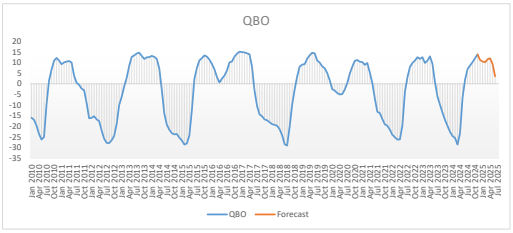
INDEX	SIGN/PHASE	NORDIC		CONTINENT			Main weather regimes								
		T	P	T	P	W	1	2	3	4	5	6	L	N	H
Normal conditions		N	N	N	N	17%	32%	4%	35%	1%	18%	9%	36%	36%	27%
Quasi-Biennial Oscillation	westerly winds	N	N	N	SA	22%	31%	6%	34%	0%	19%	10%	37%	34%	29%
Atlantic Tripole	positive	B	SB	SB	N	6%	27%	3%	27%	4%	18%	20%	29%	32%	38%
Ocean Niño Index (ONI)	weak La Niña	SB	B	SB	SA	14%	24%	2%	36%	3%	27%	8%	26%	39%	35%
Solar cycle	maximum period	SB	B	SB	N	15%	26%	6%	23%	5%	31%	9%	32%	28%	40%
Oct snow cover extent	low snow cover	N	SA	N	N	21%	41%	1%	32%	0%	20%	6%	42%	32%	26%
AO persistence	positive	N	SB	SA	A	16%	31%	7%	29%	3%	23%	8%	38%	32%	30%
Analog years	97,01,09,14,23	N	B	SB	N	9%	21%	3%	39%	7%	21%	10%	23%	46%	31%

Explanation of each index and the legend are found on the last page.

Photo Voltaics Germany in % of normal	61%

Wind in Germany in % of normal	59%

MODEL	NORDIC		CONTINENT	
	T	P	T	P
ECMWF	A	A	A	B
CFSv2	A	SA	A	N
Met Office	A	A	SA	N
DWD	A	A	A	SB
Meteo-France	A	A	A	N
ECCC	A	A	A	SB
C3S	A	A	A	SB
NMME	A	A	A	SB
Forecaster	SA	SA	SA	SB



The observed and forecasted Quasi Biennial Oscillation

January 2025 – Discussion

MODELS
All seasonal models show strong alignment on the main trends for this month. This is also reflected in the EC monthly forecast, where low-pressure systems are generally moving into Scandinavia from southwest and west. This results in wet and mild conditions in the Nordics, while the continent is expected to experience mild temperatures with precipitation near or slightly below normal levels.

TELECONNECTIONS
The **QBO** is currently in its westerly phase giving a weak wet signal over Central Europe so not aligned with the models.

Atlantic Tripole is expected positive and give a cold and slightly dry signal over Nordic and slightly cold signal over Central Europe as well.

ENSO is in a weak La Niña state and most of these years have been drier and colder than normal over Nordic, though some variations have been seen. Weak wet and cold signal over Central Europe.

The **solar cycle** is currently in its maximum phase, with solar activity unusually high compared to the last 20–30 years. This limits the availability of analog years, but historical data suggests drier than normal over Nordic and slightly cold signal both over Nordic and Central Europe.

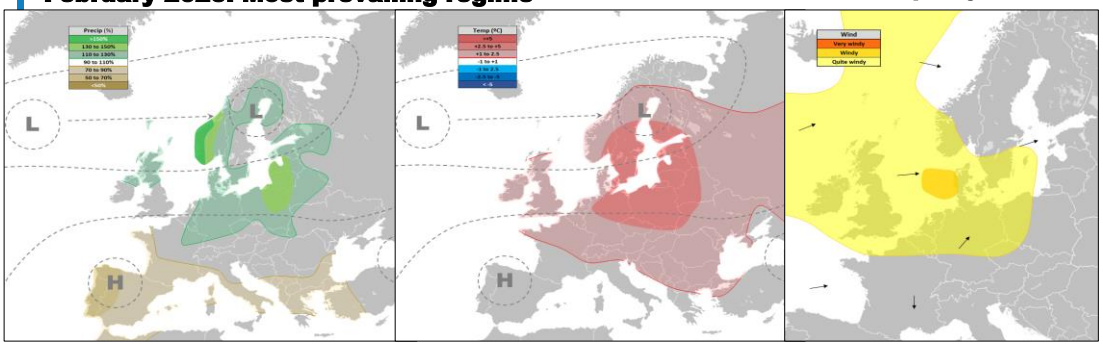
The **low Siberian snow cover** October give a weak wet signal over Nordic.

Analog year 2023 was wet and mild over Nordic, but the other years drier than normal and both milder and colder than normal. Over Central Europe both variable temperature and precipitation outcome of these years.

CONCLUSION
Teleconnections and analog years disagree quite a lot with the models. We should also take monthly PV forecast into account and at least the very strong PV now in late December is likely becoming more neutral into January. This could at least lead to a somwhat more wavy and less strong jet stream. But I hardly see prevailing dry and cold weather to develop, still very low support for a SSW to develop, most likely at least slightly wet and mild. Colder and drier than normal is unlikely. Over the Conti also likely at least slightly mild and normal to slightly dry.

February 2025: Most prevailing regime

Frequency: 40%



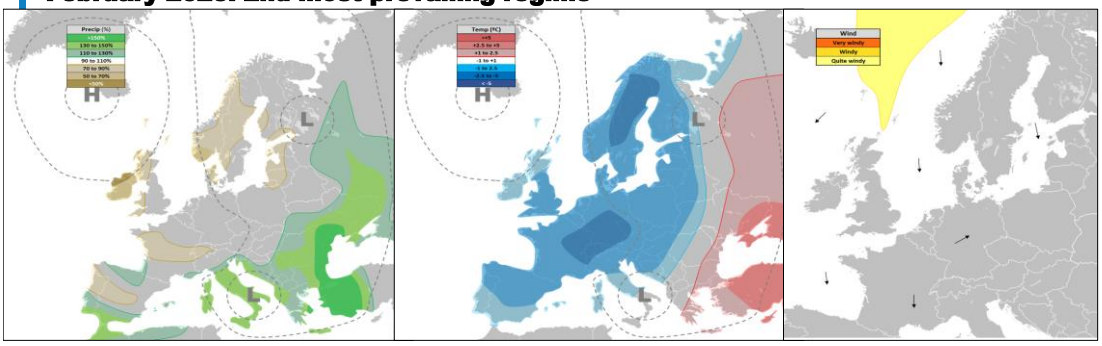
Mean values	NC	CE
Precipitation	A	N
Temperature	A	A
Windy days		58%

Previous occurrences of this scenario	
Occurrences since 2010	23%
Occurrences 2000-2009	38%
Occurrences 1979-1999	24%

Occurrences for teleconnections			
QBO	27%	OSCE	41%
Atl. Tripole	32%	AO	27%
ONI	22%	Analog	34%
Solar cycle	28%		

February 2025: 2nd most prevailing regime

Frequency: 25%



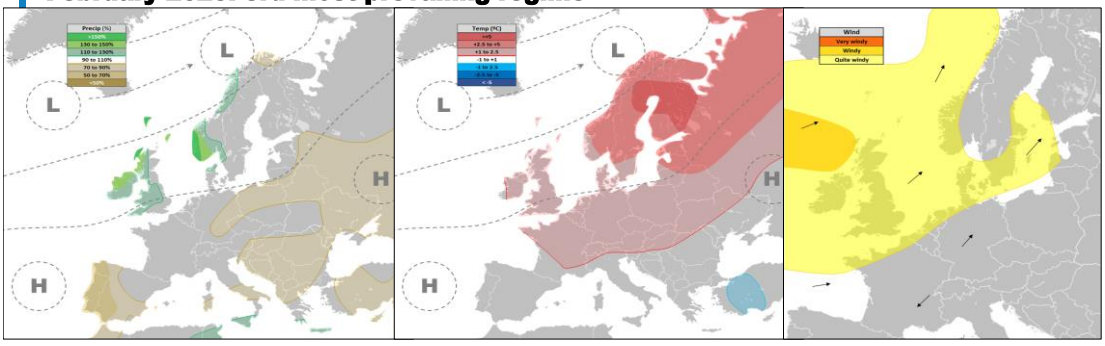
Mean values	NC	CE
Precipitation	SB	SB
Temperature	B	WB
Windy days		29%

Previous occurrences of this scenario	
Occurrences since 2010	11%
Occurrences 2000-2009	8%
Occurrences 1979-1999	9%

Occurrences for teleconnections			
QBO	10%	OSCE	6%
Atl. Tripole	11%	AO	4%
ONI	10%	Analog	9%
Solar cycle	7%		

February 2025: 3rd most prevailing regime

Frequency: 15%



Mean values	NC	CE
Precipitation	SA	N
Temperature	A	SA
Windy days		41%

Previous occurrences of this scenario	
Occurrences since 2010	29%
Occurrences 2000-2009	12%
Occurrences 1979-1999	19%

Occurrences for teleconnections			
QBO	30%	OSCE	32%
Atl. Tripole	31%	AO	33%
ONI	23%	Analog	31%
Solar cycle	28%		

INDEX	SIGN/PHASE	NORDIC T	NORDIC P	CONTINENT T	CONTINENT P	CONTINENT W
Normal conditions		N	N	N	N	16%
Quasi-Biennial Oscillation	westerly winds	SB	N	N	N	16%
Atlantic Tripole	positive	SB	SB	SA	N	14%
Ocean Niño Index (ONI)	weak La Niña	B	B	B	N	10%
Solar cycle	maximum period	SA	SB	A	A	17%
Oct snow cover extent	low snow cover	SB	B	SB	SB	0%
AO persistence	neutral	SA	SA	SA	N	15%
Analog years	97,09, 11, 23	B	N	N	B	20%

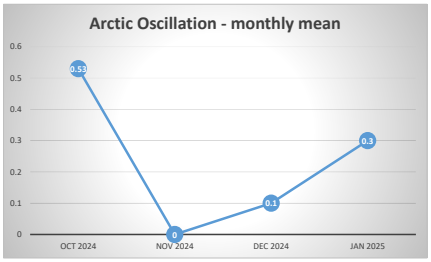
Main weather regimes 1	2	3	4	5	6	L	N	H
29%	10%	30%	1%	20%	9%	39%	31%	29%
27%	10%	30%	0%	22%	10%	37%	30%	33%
32%	5%	31%	22%	0%	11%	36%	53%	11%
22%	9%	33%	23%	2%	10%	31%	55%	11%
28%	10%	28%	0%	27%	7%	38%	28%	34%
30%	2%	30%	0%	29%	8%	32%	30%	37%
27%	9%	33%	3%	23%	4%	36%	36%	27%
34%	3%	31%	0%	23%	9%	37%	31%	32%

Explanation of each index and the legend are found on the last page.

Photo Voltaics Germany in % of normal	48%

Wind in Germany in % of normal	47%

MODEL	NORDIC T	NORDIC P	CONTINENT T	CONTINENT P
ECMWF	A	SA	A	N
CFSv2	A	A	A	B
Met Office	A	A	A	N
DWD	A	A	A	N
Meteo-France	A	A	A	N
ECCC	A	A	A	N
C3S	A	A	A	SB
NMME	A	A	A	SB
Forecaster	N	N	SA	SB



Monthly mean values of the Arctic Oscillation (AO)

February 2025 – Discussion

MODELS

All models shows a strong mild signal across Europe and nearly all a strong wet signal over Nordic with lows entering from southwest and west.

TELECONNECTIONS

QBO in westerly phase give a weak cold signal over Nordic.

Some uncertainty for the **Tripole** but most likely remaining positive this month which give a weak support for drier and colder than normal over Nordic and mild over Central Europe.

Weak La Niña conditions give an average of dry and cold over Nordic when all years are taken into account, but variability within these years. The same is true for the cold signal over Central Europe.

Solar cycle in maximum phase give a quite solid wet and mild signal over Central Europe while weak dry and mild signal over Nordic.

As mentioned in the November update the dry and weak cold signal given by the low **Siberian snow cover** is related to the extreme cold and dry year 1987.

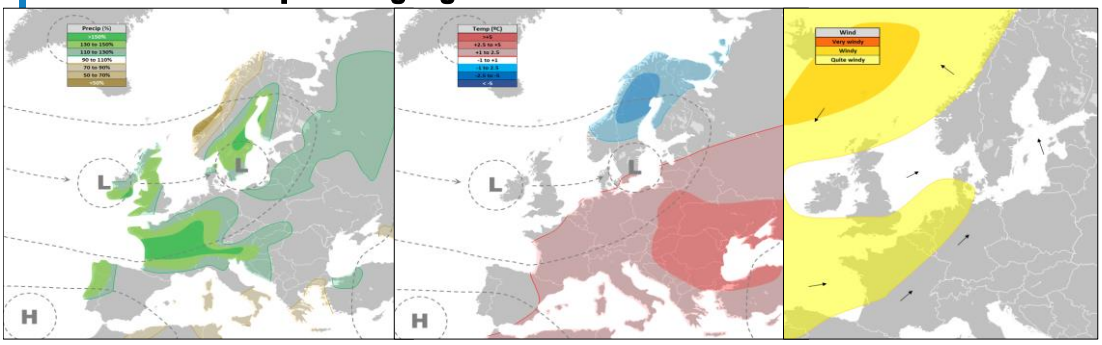
Analog year 2011 was very cold over Nordic, while 1997 and 2023 was both milder than normal. 1997 was very wet while the other years slightly on the dry side. Over Central Europe 1997 was mild, the other years normal to slightly cold and most of the years drier than normal.

CONCLUSION

Models continue to show a very strong wet and mild signal over Nordic and strong mild signal also over the Conti. Ensemble mean from most models shows a close to neutral PV for February, a few slighty strong or slightly weak. Weak signals for SSW. I think the models overestimate the chance of wet and mild over Nordic and its a fair chance that it at least could be more neutral, while for the Conti slightly dry and mild turn out as most likely.

March 2025: Most prevailing regime

Frequency: 40%



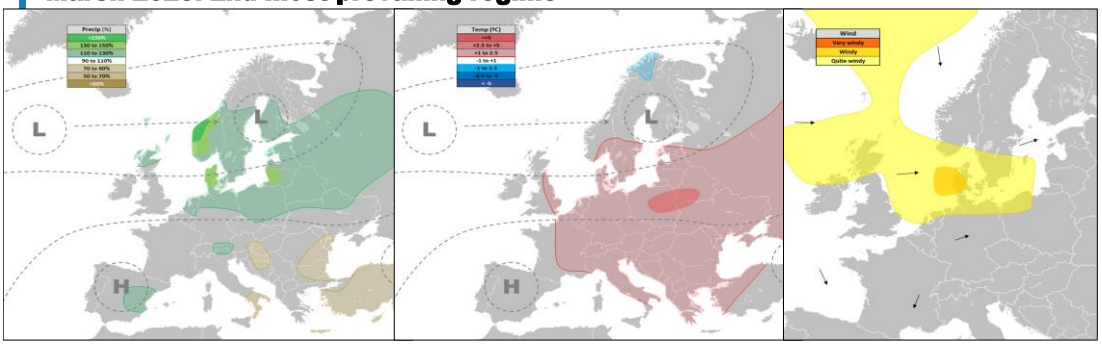
Mean values	NC	CE
Precipitation	SA	WA
Temperature	N	SA
Windy days		69%

Previous occurrences of this scenario	
Occurrences since 2010	2%
Occurrences 2000-2009	4%
Occurrences 1979-1999	3%

Occurrences for teleconnections			
QBO	13%	OSCE	-
Atl. Tripole	10%	AO	10%
ONI	15%	Analog	5%
Solar cycle	15%		

March 2025: 2nd most prevailing regime

Frequency: 35%



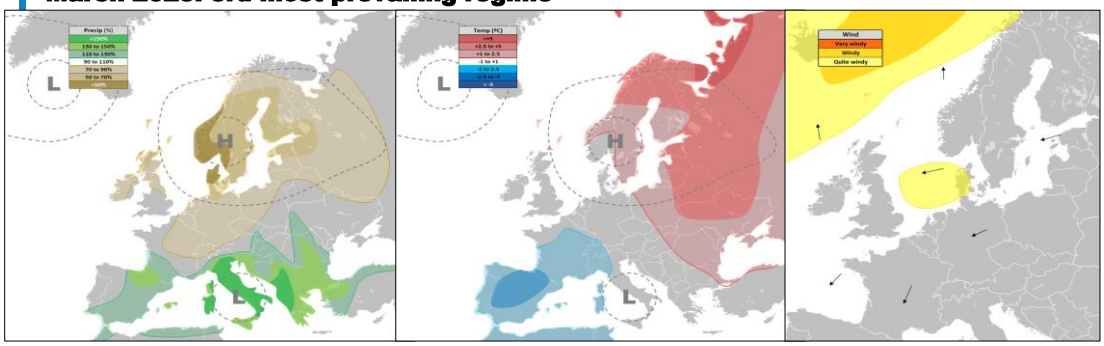
Mean values	NC	CE
Precipitation	SA	N
Temperature	SA	SA
Windy days		59%

Previous occurrences of this scenario	
Occurrences since 2010	23%
Occurrences 2000-2009	38%
Occurrences 1979-1999	24%

Occurrences for teleconnections			
QBO	27%	OSCE	-
Atl. Tripole	30%	AO	22%
ONI	17%	Analog	21%
Solar cycle	27%		

March 2025: 3rd most prevailing regime

Frequency: 15%



Mean values	NC	CE
Precipitation	WB	SB
Temperature	SA	N
Windy days		28%

Previous occurrences of this scenario	
Occurrences since 2010	25%
Occurrences 2000-2009	10%
Occurrences 1979-1999	24%

Occurrences for teleconnections			
QBO	25%	OSCE	-
Atl. Tripole	24%	AO	28%
ONI	24%	Analog	44%
Solar cycle	28%		

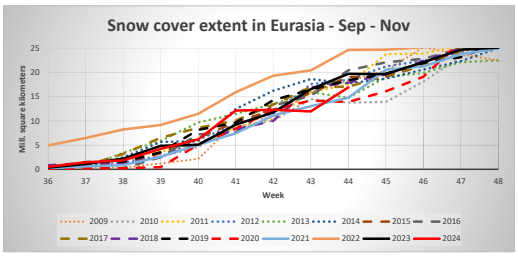
INDEX	SIGN/PHASE	NORDIC		CONTINENT			Main weather regimes								
		T	P	T	P	W	1	2	3	4	5	6	L	N	H
Normal conditions		N	N	N	N	10%	27%	10%	31%	2%	20%	8%	37%	33%	28%
Quasi-Biennial Oscillation	westerly winds	N	N	N	SA	10%	27%	13%	25%	2%	18%	11%	40%	27%	29%
Atlantic Tripole	neutral	N	N	SB	A	9%	30%	10%	24%	5%	24%	6%	40%	28%	30%
Ocean Niño Index (ONI)	neutral	SB	SB	SB	SA	5%	17%	15%	24%	1%	25%	16%	32%	25%	40%
Solar cycle	maximum period	SA	A	A	A	13%	27%	15%	28%	0%	13%	11%	43%	28%	24%
Oct snow cover extent	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AO persistence	neutral	SB	N	N	N	15%	22%	10%	28%	5%	29%	6%	32%	33%	35%
Analog years	1997,2009	N	SA	N	SB	3%	21%	5%	44%	0%	11%	11%	26%	44%	23%

Explanation of each index and the legend are found on the last page.

Photo Voltaics Germany in % of normal	107%

Wind in Germany in % of normal	89%

MODEL	NORDIC		CONTINENT	
	T	P	T	P
ECMWF	A	A	A	SB
CFSv2	A	A	A	SB
Met Office	A	A	A	SB
DWD	A	A	A	SB
Meteo-France	A	SA	A	SA
ECCC	A	SA	A	SA
C3S	A	A	A	N
NMME	A	A	A	SB
Forecaster	SA	SA	SA	SA



March 2025 – Discussion

MODELS

Models remain mild across Central and Northern Europe and still a wet signal over Nordic and most of them has a weak dry signal over Central Europe.

TELECONNECTIONS

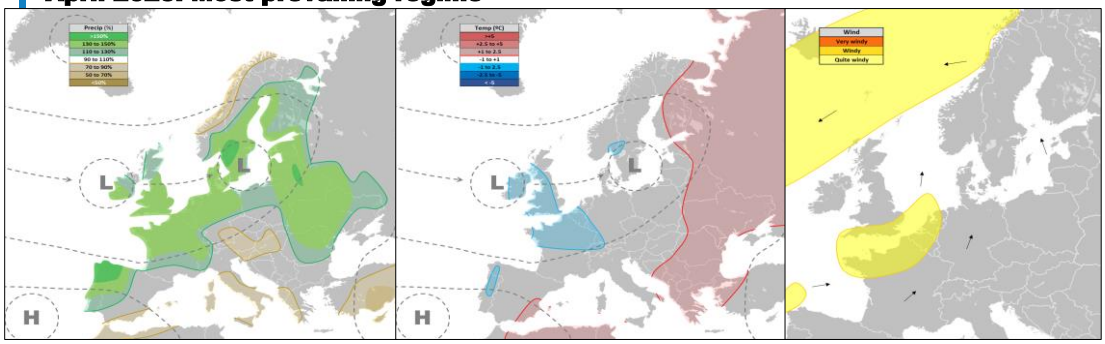
QBO in westerly phase give a weak wet signal over Central Europe.
Tripole phase is uncertain, perhaps becoming neutral this month and in case a wet and weak cold signal for the Conti.
ENSO is probably turning neutral again and give in general weak signals, slightly cold over Central and Northern Europe and weak dry signal over Nordic, while weak wet signal over Central Europe.
Solar Cycle in maximum phase give a wet signal across Central and Northern Europe this month and also a mild signal.
Analog years disagree. 1997 was wet and mild over Nordic while 2009 dry with normal temperatures. Over the Conti 1997 was dry and mild and 2009 slightly wet and cold.

CONCLUSION

The models continue to support the established winter pattern of a mild and wet trend for the Nordics and mild with near-normal or slightly dry conditions for the continent has strongest support. Models shows low support for that the PV should be weaker than normal and a SSW. Not aligned signals from the analog years or teleconnections this month. But taken models into account I'm leaning toward wetter and milder than normal over Nordic. For the Conti stronger support for wetter than normal now and slighty mild is more likely than colder than normal.

April 2025: Most prevailing regime

Frequency: 40%



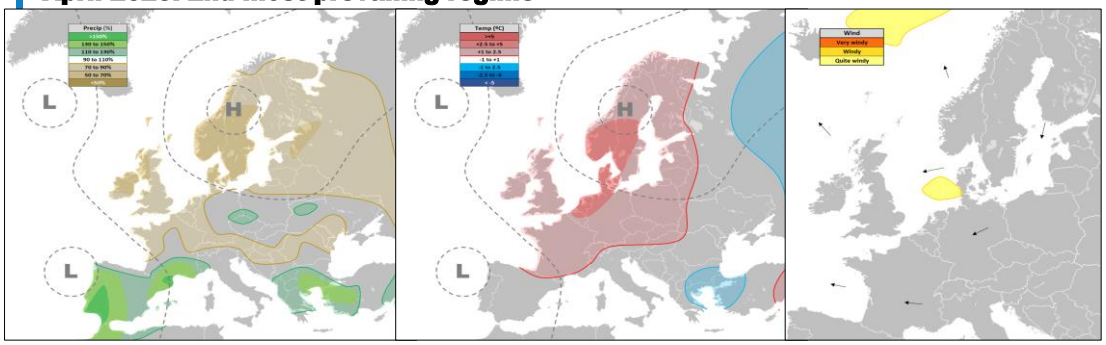
Mean values	NC	CE
Precipitation	N	SA
Temperature	N	N
Windy days		61%

Previous occurrences of this scenario	
Occurrences since 2010	2%
Occurrences 2000-2009	4%
Occurrences 1979-1999	3%

Occurrences for teleconnections			
QBO	7%	OSCE	-
Atl. Tripole	9%	AO	5%
ONI	9%	Analog	17%
Solar cycle	8%		

April 2025: 2nd most prevailing regime

Frequency: 25%



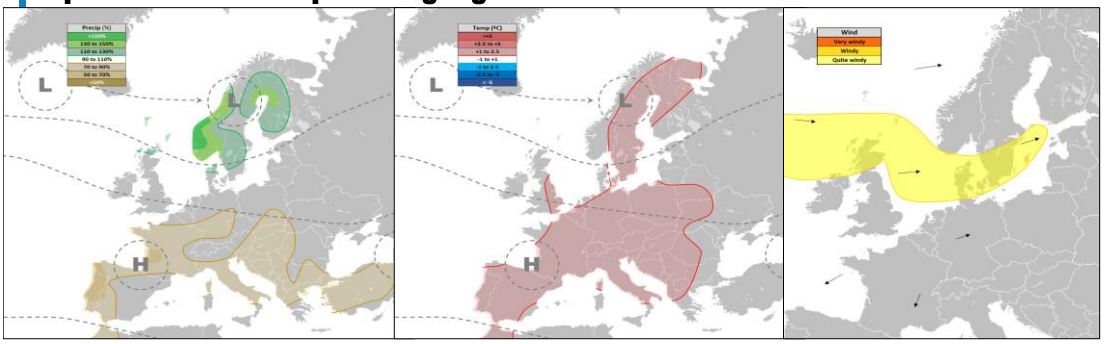
Mean values	NC	CE
Precipitation	B	SB
Temperature	A	SA
Windy days		28%

Previous occurrences of this scenario	
Occurrences since 2010	29%
Occurrences 2000-2009	12%
Occurrences 1979-1999	19%

Occurrences for teleconnections			
QBO	17%	OSCE	-
Atl. Tripole	23%	AO	7%
ONI	21%	Analog	19%
Solar cycle	18%		

April 2025: 3rd most prevailing regime

Frequency: 20%



Mean values	NC	CE
Precipitation	A	N
Temperature	SA	SA
Windy days		39%

Previous occurrences of this scenario	
Occurrences since 2010	23%
Occurrences 2000-2009	38%
Occurrences 1979-1999	24%

Occurrences for teleconnections			
QBO	27%	OSCE	-
Atl. Tripole	25%	AO	48%
ONI	30%	Analog	40%
Solar cycle	28%		

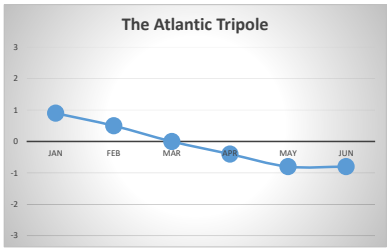
INDEX	SIGN/PHASE	NORDIC		CONTINENT			Main weather regimes								
		T	P	T	P	W	1	2	3	4	5	6	L	N	H
Normal conditions		N	N	N	N	6%	30%	8%	18%	4%	28%	11%	39%	22%	39%
Quasi-Biennial Oscillation	westerly winds	N	SB	N	N	7%	27%	7%	17%	6%	30%	12%	34%	23%	42%
Atlantic Tripole	negative	SA	N	N	N	7%	25%	9%	23%	3%	30%	9%	34%	27%	39%
Ocean Niño Index (ONI)	neutral	N	N	SA	SB	3%	30%	9%	21%	2%	27%	9%	40%	23%	36%
Solar cycle	maximum period	SA	SA	SB	A	7%	26%	8%	18%	7%	29%	10%	34%	24%	39%
Oct snow cover extent	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AO persistence	neutral	SB	SA	N	A	0%	48%	5%	7%	5%	30%	6%	53%	12%	36%
Analog years	2001,2009,2012	SB	A	SB	A	1%	40%	17%	19%	0%	10%	14%	57%	19%	24%

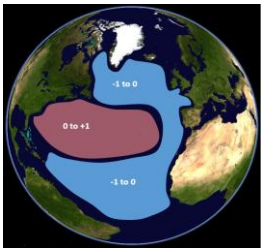
Explanation of each index and the legend are found on the last page.

Photo Voltaics Germany in % of normal	94%

Wind in Germany in % of normal	103%

MODEL	NORDIC		CONTINENT	
	T	P	T	P
ECMWF	A	N	A	A
CFSv2	A	N	SA	SA
Met Office	A	SA	A	SA
DWD	A	N	A	N
Meteo-France	A	SA	A	N
ECCC	A	SA	A	N
C3S	A	SA	A	N
NMME	A	SA	A	SB
Forecaster	SA	SA	N	SA





April 2025 – Discussion

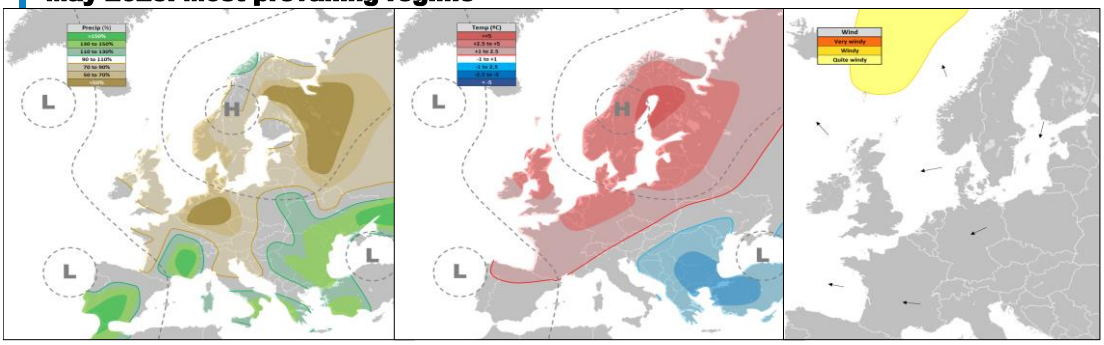
MODELS
The models hold on to mild weather across Europe, wet signal dominates over Nordic and weak precpitation signal for Central Europe..

TELECONNECTIONS
QBO is likely still in westerly phase and only give a weak dry signal over Nordic.
Phase and strenght of the **Tripole** is very uncertain, likely not that strong signal for this month.
ENSO is probably becoming neutral and also give very weak signals - weak dry and warm signal over Central Europe.
Analog years 2001 and 2012 were both wet over Nordic and slightly cold to cold, while 2009 dry and slightly mild. Over Central Europe also 2001 and 2012 were wet and cold, 2009 slightly dry and mild.

CONCLUSION
Based on analog years and models wetter than normal both over Nordic and Central Europe looks most likely and then with temperatures near to slightly above normal.

May 2025: Most prevailing regime

Frequency: 35%



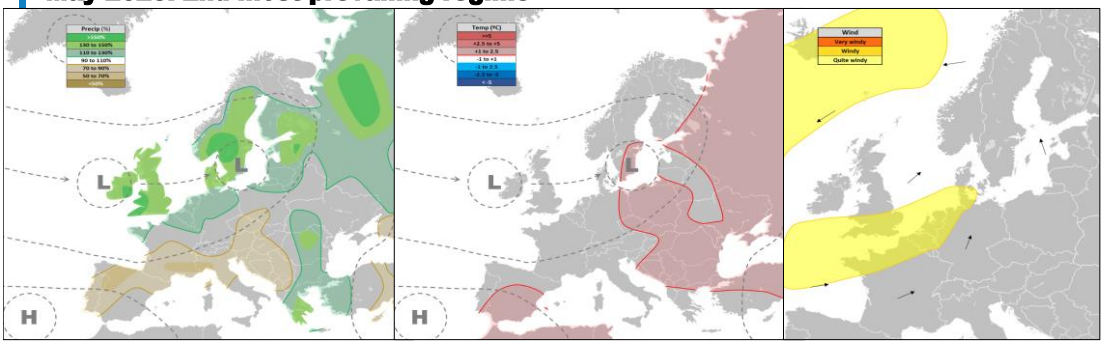
Mean values	NC	CE
Precipitation	B	SA
Temperature	A	A
Windy days		21%

Previous occurrences of this scenario	
Occurrences since 2010	29%
Occurrences 2000-2009	12%
Occurrences 1979-1999	19%

Occurrences for teleconnections			
QBO	13%	OSCE	-
Atl. Tripole	19%		
ONI	15%	Analog	15%
Solar cycle	19%		

May 2025: 2nd most prevailing regime

Frequency: 30%



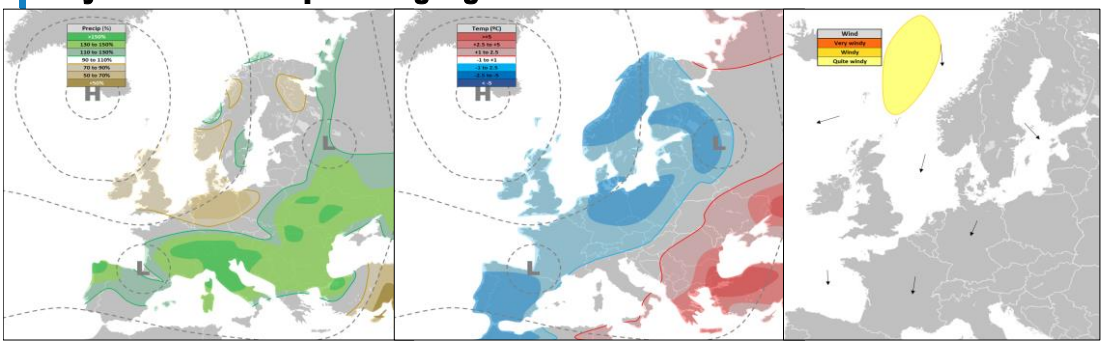
Mean values	NC	CE
Precipitation	A	SB
Temperature	N	SA
Windy days		42%

Previous occurrences of this scenario	
Occurrences since 2010	2%
Occurrences 2000-2009	4%
Occurrences 1979-1999	3%

Occurrences for teleconnections			
QBO	12%	OSCE	-
Atl. Tripole	9%	Analog	3%
ONI	15%		
Solar cycle	4%		

May 2025: 3rd most prevailing regime

Frequency: 20%



Mean values	NC	CE
Precipitation	SB	WA
Temperature	B	B
Windy days		29%

Previous occurrences of this scenario	
Occurrences since 2010	11%
Occurrences 2000-2009	8%
Occurrences 1979-1999	9%

Occurrences for teleconnections			
QBO	13%	OSCE	-
Atl. Tripole	13%		
ONI	13%	Analog	10%
Solar cycle	7%		

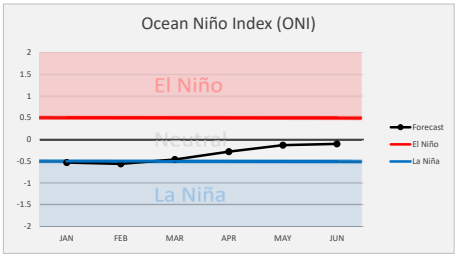
INDEX	SIGN/PHASE	NORDIC		CONTINENT			Main weather regimes								
		T	P	T	P	W	1	2	3	4	5	6	L	N	H
Normal conditions		N	N	N	N	16%	28%	12%	17%	3%	28%	12%	40%	20%	40%
Quasi-Biennial Oscillation	westerly winds	SA	N	N	SA	15%	20%	12%	13%	7%	34%	13%	32%	20%	47%
Atlantic Tripole	negative	SA	SB	SA	SB	23%	28%	9%	19%	1%	30%	13%	37%	20%	43%
Ocean Niño Index (ONI)	neutral	N	SA	N	SA	12%	33%	15%	15%	2%	23%	11%	48%	17%	34%
Solar cycle	maximum period	A	B	SA	SA	10%	33%	4%	19%	6%	31%	7%	37%	25%	38%
Oct snow cover extent	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Analog years	1991,2011	B	N	B	N	11%	47%	3%	15%	0%	26%	10%	50%	15%	35%

Explanation of each index and the legend are found on the last page.

Photo Voltaics Germany in % of normal	106%

Wind in Germany in % of normal	98%

MODEL	NORDIC		CONTINENT	
	T	P	T	P
ECMWF	SA	SA	A	N
CFSv2	A	B	SA	SB
Met Office	SA	SA	A	SB
DWD	A	SB	SA	SA
Meteo-France	A	SA	A	N
ECCC	A	SA	A	SB
C3S	A	SA	A	N
NMME	A	SA	A	N
Forecaster	SA	SB	SA	SA



The ENSO system - Pacific equatorial sea surface temperature anomaly

May 2025 – Discussion

MODELS

The models are still mild, but slightly weaker mild signal than during the Winter and early Spring. A weak wet signal dominates over Nordic and weak precipitation signals over Central Europe.

TELECONNECTIONS

Teleconnection signals are quite uncertain both regarding phase and strenght, but **QBO** will probably still be westerly and in case a weak mild signal over Nordic and a weak wet signal over the Conti. **Solar cycle** in maximum phase is also likely and that give a dry and mild signal over Norid and weak wet and mild signal over the Conti.

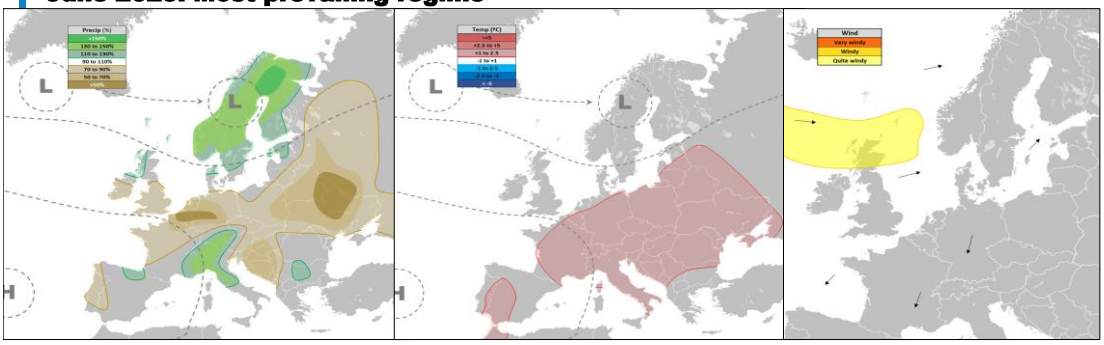
Analog years were both wet and dry over Nordic and near normal precipitation over the Conti. 1991 was cool both over Nordic and the Conti.

CONCLUSION

The few signals we have from teleconnections give a weak support for wetter than normal over Central Europe and the possibility for drier than normal over Nordic. Temperatures at least slightly above normal.

June 2025: Most prevailing regime

Frequency: 35%



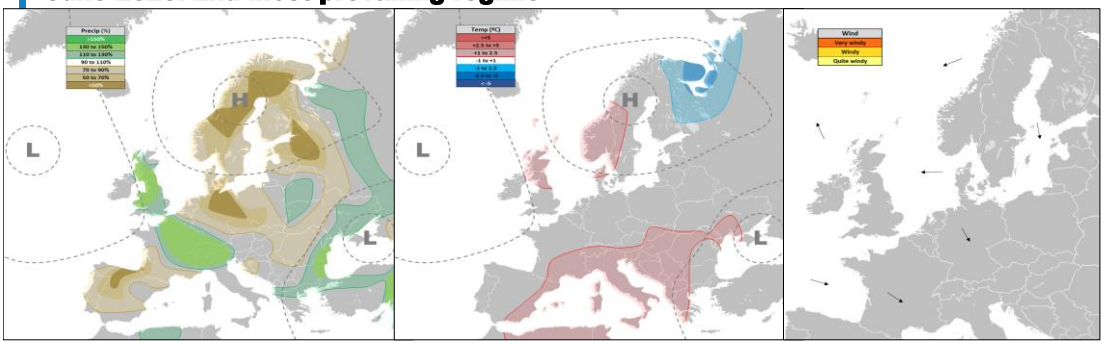
Mean values	NC	CE
Precipitation	A	N
Temperature	N	SA
Windy days		39%

Previous occurrences of this scenario	
Occurrences since 2010	23%
Occurrences 2000-2009	38%
Occurrences 1979-1999	24%

Occurrences for teleconnections			
QBO	33%	Solar cycle	36%
Atl. Tripole	26%		
ONI	30%	Analog	29%

June 2025: 2nd most prevailing regime

Frequency: 30%



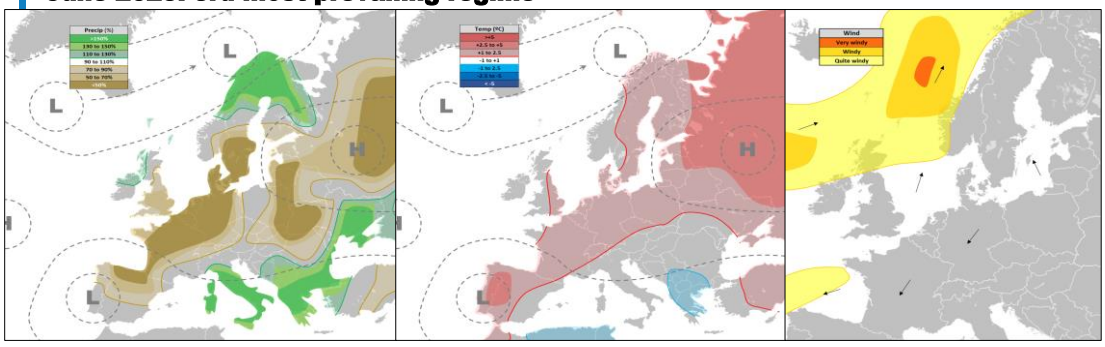
Mean values	NC	CE
Precipitation	B	SA
Temperature	SA	N
Windy days		10%

Previous occurrences of this scenario	
Occurrences since 2010	29%
Occurrences 2000-2009	12%
Occurrences 1979-1999	19%

Occurrences for teleconnections			
QBO	17%	Solar cycle	12%
Atl. Tripole	12%		
ONI	19%	Analog	14%

June 2025: 3rd most prevailing regime

Frequency: 15%



Mean values	NC	CE
Precipitation	N	B
Temperature	SA	SA
Windy days		11%

Previous occurrences of this scenario	
Occurrences since 2010	29%
Occurrences 2000-2009	12%
Occurrences 1979-1999	19%

Occurrences for teleconnections			
QBO	17%	Solar cycle	12%
Atl. Tripole	12%		
ONI	19%	Analog	14%

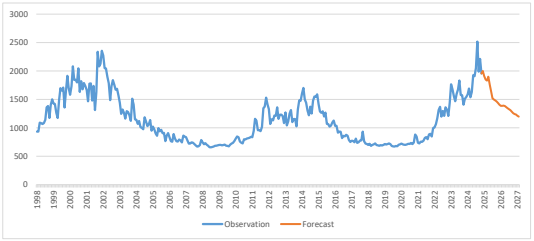
INDEX	SIGN/PHASE	NORDIC		CONTINENT			Main weather regimes								
		T	P	T	P	W	1	2	3	4	5	6	L	N	H
Normal conditions		N	N	N	N	4%	31%	19%	17%	2%	23%	8%	49%	19%	31%
Quasi-Biennial Oscillation	transition phase	SA	N	N	N	5%	33%	22%	17%	1%	20%	7%	55%	18%	27%
Atlantic Tripole	negative	N	N	SB	SA	5%	26%	24%	12%	0%	23%	14%	51%	12%	37%
Ocean Niño Index (ONI)	neutral	N	N	N	SB	4%	30%	23%	19%	1%	18%	9%	53%	20%	27%
Solar cycle	maximum period	SA	A	SB	N	4%	36%	25%	12%	0%	16%	11%	60%	12%	28%
Oct. snow cover extent	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Analog years	2011, 2013, 2020	A	A	SB	N	6%	29%	33%	14%	0%	17%	7%	62%	14%	23%

Explanation of each index and the legend are found on the last page.

Photo Voltaics Germany in % of normal	29%

Wind in Germany in % of normal	31%

MODEL	NORDIC		CONTINENT	
	T	P	T	P
ECMWF	SA	N	SA	SA
CFSv2	A	A	A	SB
Meteo-France	-	-	-	-
ECCC	-	-	-	-
NMME	A	N	A	SB
Forecaster	SA	SA	SA	N



The solar cycle

June 2025 – Discussion

MODELS

With few models available for this period, there is limited guidance, but a warm signal across Europe still excist.

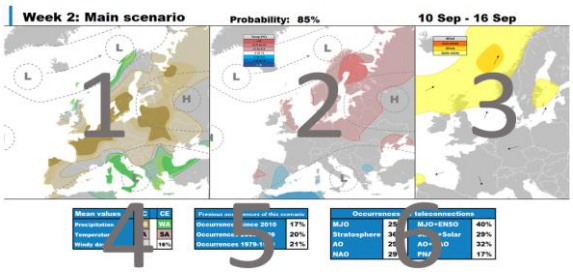
TELECONNECTIONS

While teleconnection data exists for this month, it should be taken with caution given the extended range with uncertain phase and strenght. Similarly, analog years provide some hints but are not highly reliable. These analogs suggest wet and warm over Nordic as all years have been warm and 2 out of 3 wet. All years have given near normal precipitation over the Central Europe and normal to slightly cool conditions.

Worth noting is that ENSO is expected to be neutral again, and is likely to turn positive later during Summer, possibly heading towards a weak El Nino next winter.

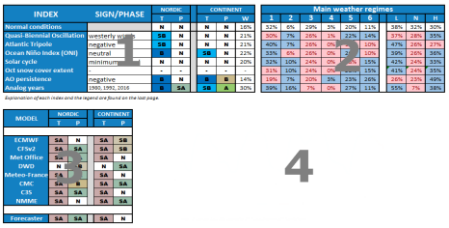
CONCLUSION

Forecasting at this range is highly uncertain and involves more speculation than confidence. The forecast incorporates signals from the analog years, which suggest wet and mild over Nordic and normal precipitation and temperatur over Central Europe, but confidence in any specific outcome is very low. This forecast should be treated as a rough indication rather than a definitive outlook.



For each month, the forecaster pick three weather regimes that the forecaster think is going to be the most prevailing that month. How likely each of these are, or how often we anticipate these to occur that week, is given by the "Frequency" above the charts. All the charts are based on the average conditions for a typical weather situation of the chosen weather regime.

1. Precipitation anomaly chart. Shows areas of above and below normal precipitation for the given scenario, and where the most common low pressure track or low pressure/high pressure systems are positioned.
2. Temperature anomaly chart.
3. Wind anomaly chart. This is a rough estimate of areas that often see windy conditions and the general wind direction for the given weather scenario.
4. The average precipitation and temperature for the Nordic Countries (NC) and Continental Europe (CE). "Windy days" shows how many days the average wind in Germany is higher than 1 standard deviation above the normal.
5. A table that shows how often this particular weather scenario has occurred in that particular month.
6. A table that shows how often this particular weather scenario has occurred before for the given phase or value of each teleconnection index in that week.



1. A table for each teleconnection index, the sign/phase they have for that week, and the average temperature, precipitation and wind for the Nordic and the continent based on previous occurrences of these indices for the same time of the year.
2. Shows what weather scenario that occurs most often for the given teleconnection, and how often this occurs.
3. A table for several available weather models and their average conditions in the Nordic and the Continent. The last row shows the forecaster's expectation.
4. For each month this shows different charts and graphs for different teleconnections.

A description of the weather regimes used.

1 A general western low pressure regime. Lows into Scandinavia. Often a high over Southern Europe and/ or the continent.
2 A southern low pressure track via UK and into South Scandinavia and/or the continent. Also includes the quite rare situation where lows move from E-Europe and into Scandinavia from the SE.
3 A northern low pressure scenario where lows move via Iceland and into the Barents Sea/N-Nordic. Often a high in the continent and/or into South Scandinavia. Often a mild scenario. It may be wet at times, especially in Northern Norway, but often it is quite dry for the Nordic in general.
4 Lows stops west of Scandinavia or over UK due to a high pressure to the east, often over NW or W Russia.
5 High pressure over Northern Europe. Includes high pressure situation over the Nordic, the Norwegian Sea or the North Sea. There may be lows into the continent, but it could also just be a ridge, or the high itself may stretch into the continent. The main point is that the high is centered to the north.
6 High over or just south of Iceland. Usually there will be a low over the Nordic. The continent is more mixed, whether there is a low there or not, but for most of Europe this means a cold scenario.

Quasi-Biennial Oscillation (QBO)
The QBO (Quasi-Biennial Oscillation) is a large-scale wind system over the Equator. The wind blows in a broad belt over the Equator in a Westerly or Easterly direction, and the direction changes approximately every second year.
A negative phase indicates Easterly winds, and a positive phase Westerly winds. It usually have stronger signals in the winter season and typically it tend to be cooler and drier types of weather in winters with a negative QBO phase. It may occasionally give signals in other seasons as well.

Atlantic Tripole
The Atlantic Tripole is a sea surface temperature pattern in the Northern Atlantic. The temperature anomalies in the Northern Atlantic often follow a three-way pattern, or three poles (a Tripole), where the tropical parts and the areas south of Greenland/Iceland often have the same sign, while the area in the middle, especially off the coast of the United States, have the opposite sign. In a negative Atlantic Tripole, the areas south of Greenland/Iceland, and in the tropics, are generally cooler than normal, with a warm anomaly between them. A positive Tripole has a warm anomaly south of Greenland/Iceland and in the tropics, and cooler off the coast of North America.
The tripole may have signals all year around. A negative tripole is typically associated with increased low pressure activity in the Nordic.

Ocean Niño Index (ONI) or ENSO
The ONI is used to define the ENSO system. It measures the sea surface temperatures (SST) in the tropical Pacific. Temperatures higher than 0.5 deg above normal SSTs are regarded as El Niño conditions, while temperatures lower than 0.5 deg below normal SST are regarded as La Niña. The ENSO system typically has stronger deviations from the normal in the Winter season, and thus the impact on the weather is also often stronger in the Winter, although it may have signals all year around.

Solar cycle
The amount of solar radiation that Sun emits and the Earth absorbs, oscillates in an approximate 11-year cycle, thus changes very little from month to month. The forecasts are based on predictions from NASA, although the main trends are relatively predictable.
The impact on the weather is generally quite low, but there are tendencies that varies through the year depending on where in the cycle we are.

October snow cover extent (OCE)
The October snow cover extent in Siberia has shown to have possible impacts on the Winter weather. Thus, this is only applicable for the Winter season. Years of high snow cover in Siberia has a tendency of increasing the chance of a colder weather development in January/February, where complicated processes leads to changes in the stratosphere and the result is often a weaker polar vortex or a sudden stratospheric warming (SSW). Years of low snow cover in Siberia has the opposite effect, often resulting in a stronger polar vortex and milder/wetter conditions near the surface.

AO persistence
The Arctic Oscillation (AO) is a pressure index related to the pressure difference between higher and lower latitudes across the Northern Hemisphere, and could be seen as a more general version of the NAO. Or the NAO could be seen as a local variant of the AO.
The negative and positive AO has similar signals as the NAO. There tend to be a certain persistence in this signals, especially when the amplitude has been large. So this index basically shows how the weather typically is 3 months after a particular AO. It is based on the actual observed AO for the first three months, then partly observations and forecast for the 4th month, and only forecast for the 5th month.

Analog years
These are years with similar teleconnections as we expect to see the next 6 months. Ideally, there would be years where all the teleconnections are similar, but that is rarely the case. It is rarely more than 4 of 5 teleconnections that are similar, if we are lucky, but often only 3 of 5 teleconnections, and the signal from the analog years must be used with caution.

MISSING DATA
Note that occasionally we get situations where certain combinations of the indices above have not occurred before for the period we are looking at. This will be marked by a dash (-).