



Communication workshop EMS: Co-developing a subseasonal forecast for Yr

Lonneke van Bijsterveldt - developer operational forecasts

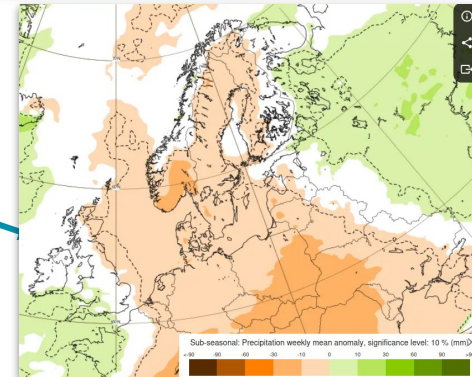
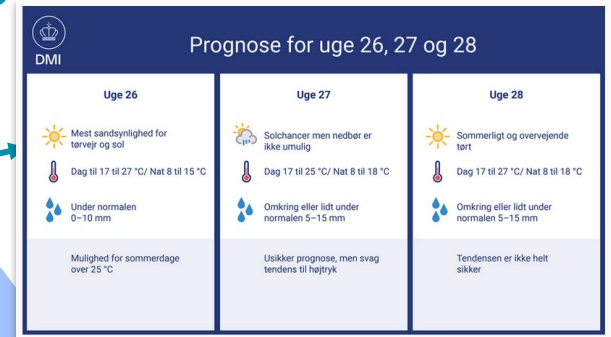
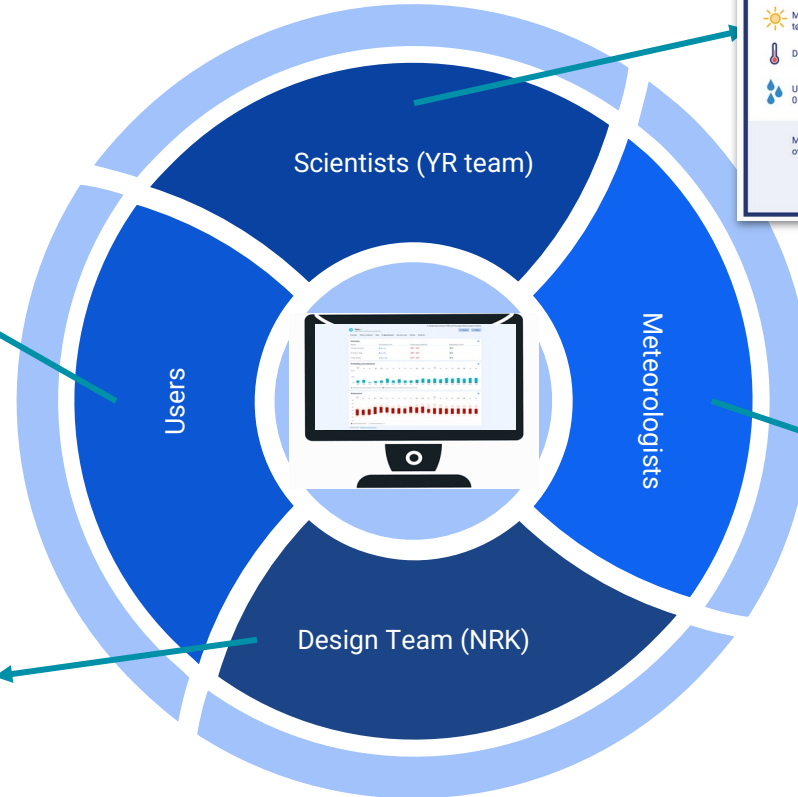
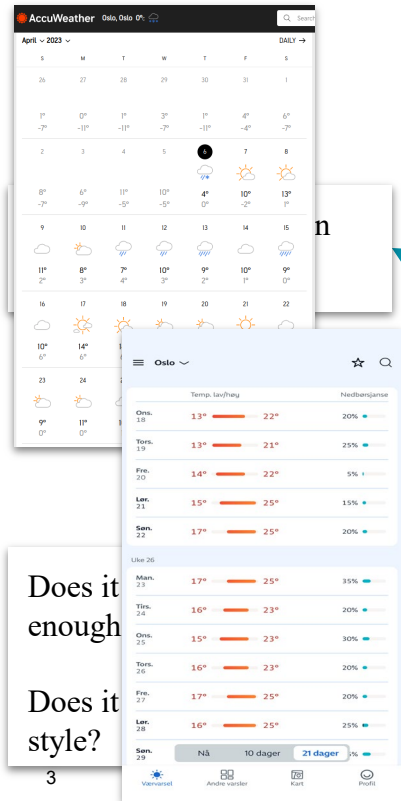
09.09.2025

Background on YR

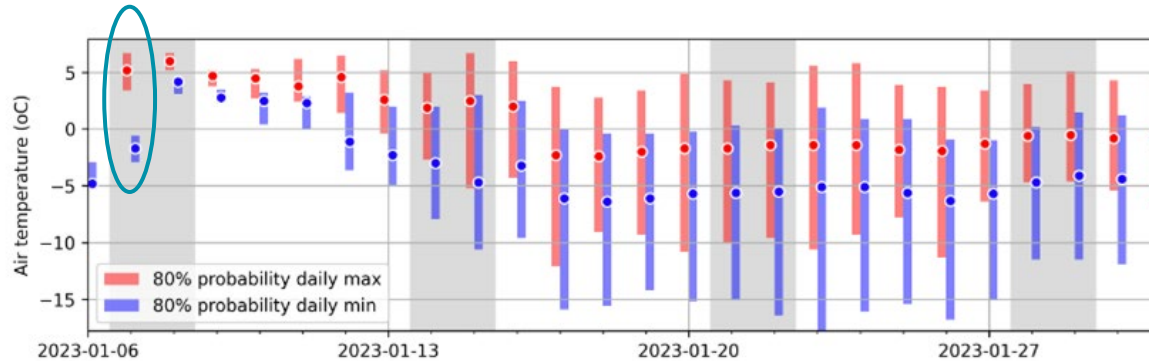
- Continuous collaboration:
 - MET Norway: Data and data quality (open data policy)
 - NRK: Design and presentation (no advertisement)
- App and website (yr.no)
- Target group: Everyone!
 - No specialized forecast
 - Easy to understand
- Since January 2024:
 - Subseasonal forecast: 21-days
 - Development time: 2 years
 - Area: Nordic region



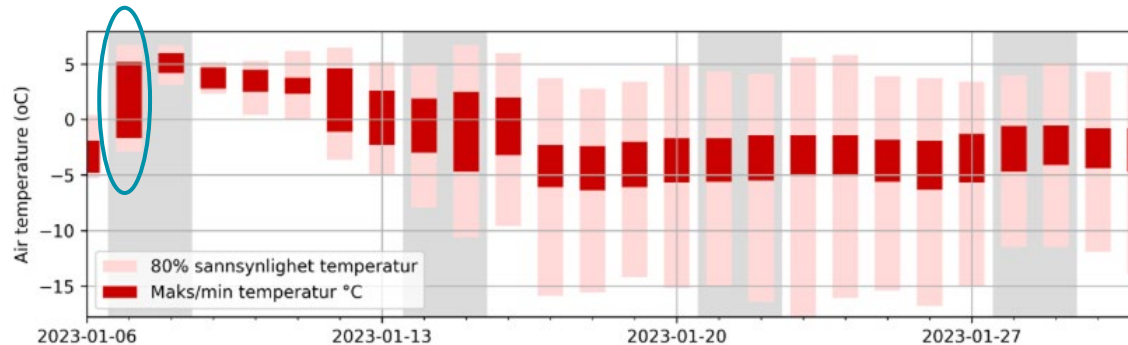
Co-production with many stakeholders



Scientists vs the Designers



Scientist approach



UX designer approach

The winner



Oslo ☆
City - large town (Norway), elevation 10 m

A collaboration between NRK and Norwegian Meteorological Institute

Q Search

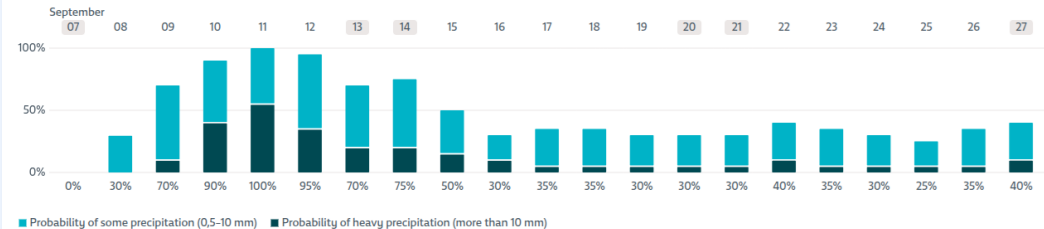
Menu

Forecast Other conditions Map **21-day forecast** Sea and coast Details Statistics

Summary

Period	Precipitation mm	Temperature high/low	Probability of frost
7 Sep.-13 Sep.	38 (18-70)	22° / 13°	0 %
14 Sep.-20 Sep.	18 (3-34)	17° / 10°	0 %
21 Sep.-27 Sep.	12 (0-31)	16° / 9°	0 %

Probability of precipitation

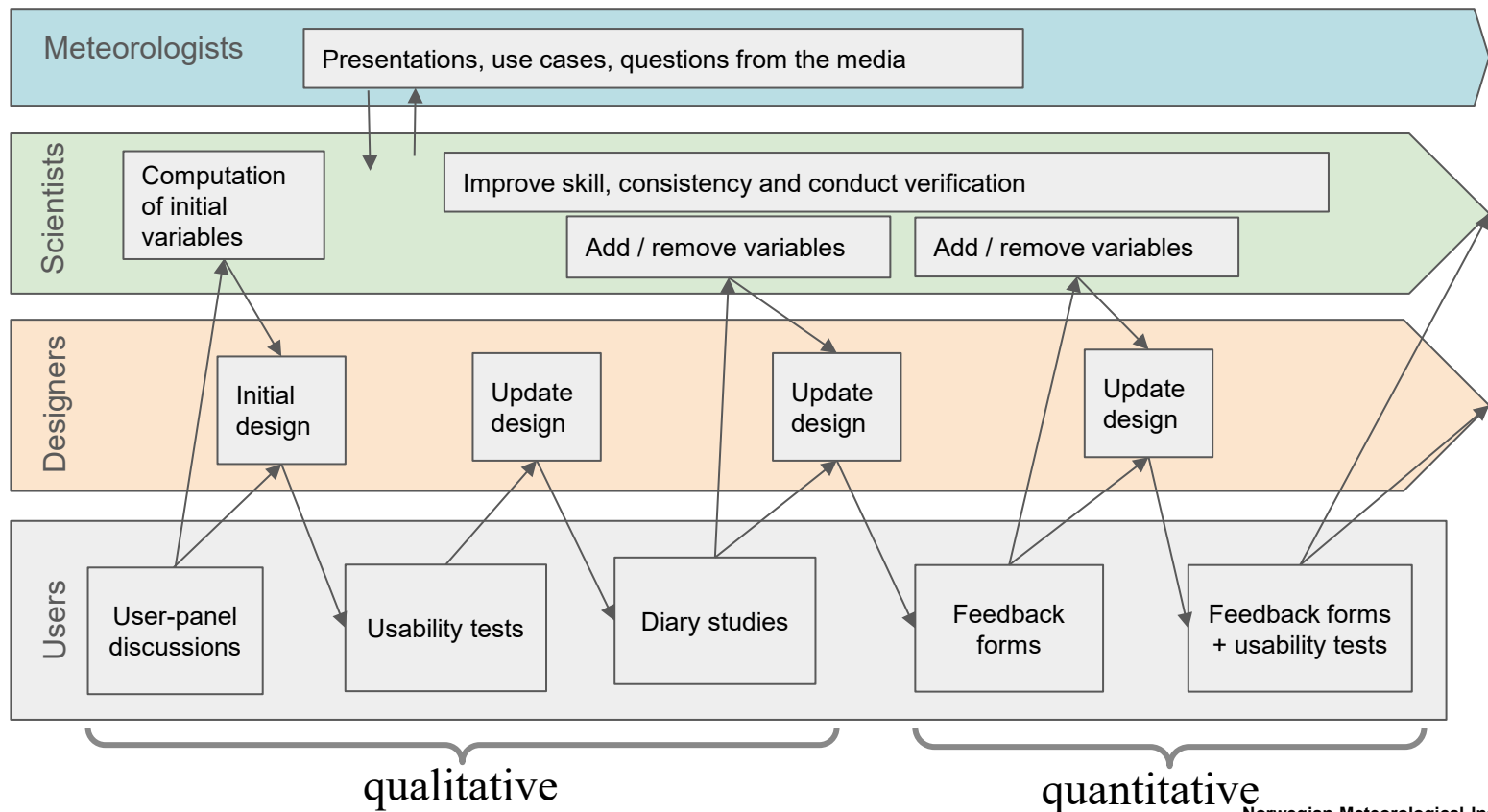


Temperature



Updated 06:28. [About the 21-day forecast](#)

Co-production process



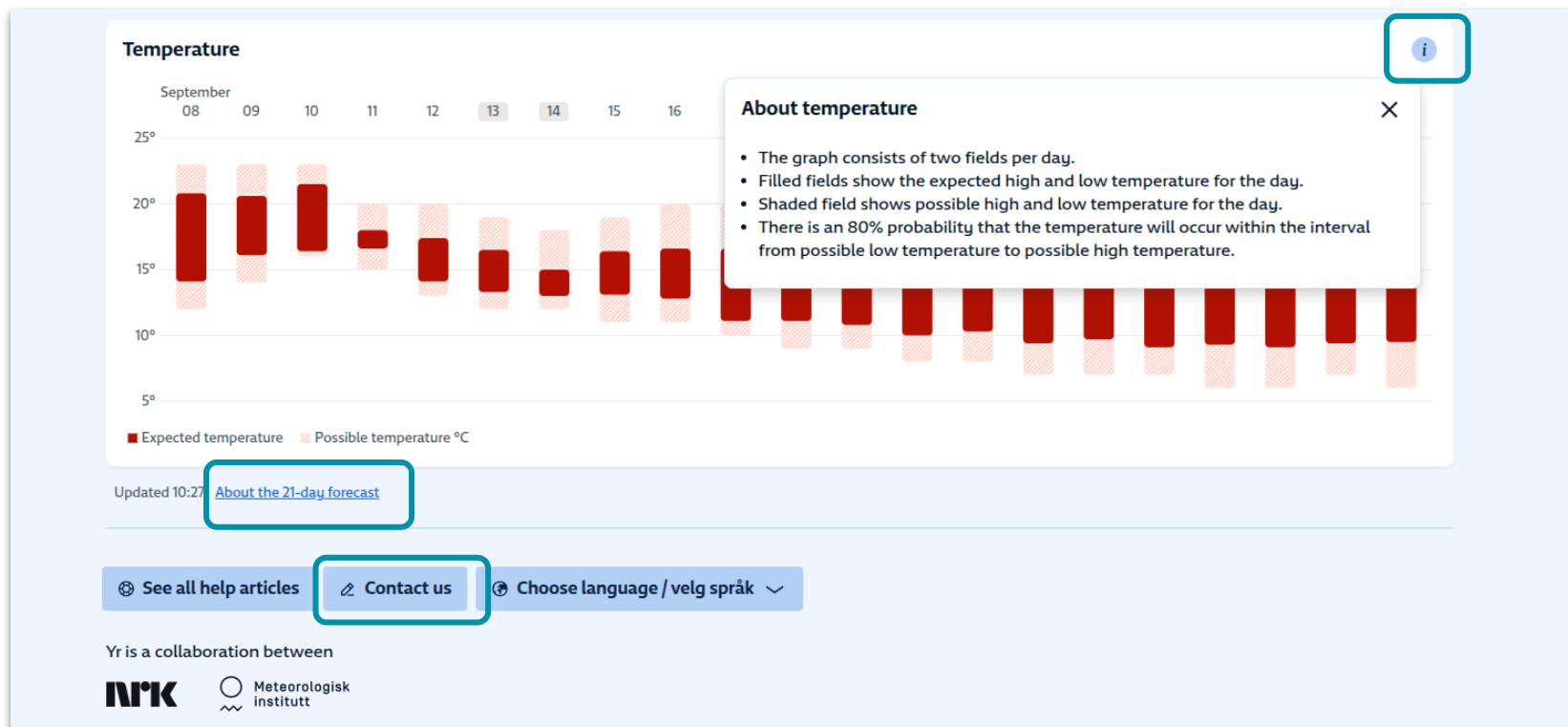
Co-production methods

Method	Number of participants	Time (duration)	Goal
User panel discussions			
Session 1	11	August 2022	explore user needs
Session 2	7	September 2022	concept development
Session 3	6	October 2022	concept development
Usability tests			
moderated, online	4	March 2023	test usability
unmoderated, online	9	November 2023	test comprehension
moderated, in person	10	November 2023	test comprehension
Diary study	15	April - May 2023	validation of concept, qualitative perception
Feedback forms			
beta version	264	July - Nov 2023	quantitative perception
operational version	1520	Nov 2023 - Sep 2024	quantitative perception

Communication related insights from user testing

- Multimodality: users respond well to different displays of the same data.
 - 86% of users combine the 21-day forecast with existing 10-day forecast
- Visualizing daily weather parameters with with uncertainty range (10th and 90th percentile) appears to show the increasing uncertainty well
 - 66% think the forecast is pretty uncertain to pretty certain
 - 5% answer certain to very certain (22% answer that they don't know).
 - 83% answer they find the forecast pretty to very useful

Continuous info supply and outreach



Continuous outreach after launch date

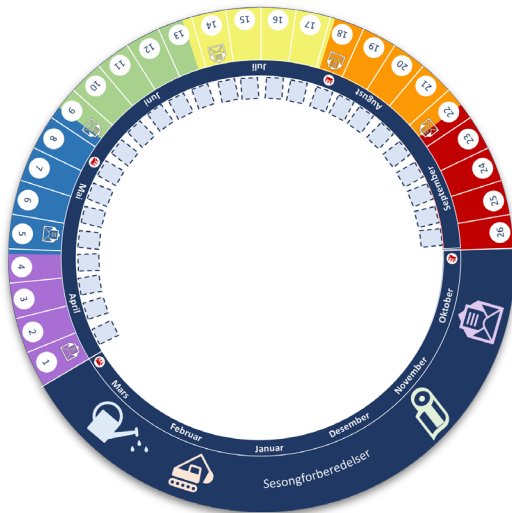


MELKEVÆRET

Serious game: A hybrid board-digital game simulating farming decision-making in the milk-production sector

4 game sessions, more than 30 participants:

- Farmers
- Agricultural consultants
- Agricultural representatives
- Forecasters
- Researchers



Learn more about Melkeværet

Orals Wed3: Wed, 10 Sep, 14:00–15:30 | Kosovel Hall

Chairpersons: Magdalena Mittermeier, Tanja Cegnar

14:00–14:15 | EMS2025-114 ★ | Onsite presentation

Different kinds of weather TV shows with meteorologists on a national television in Slovenia in the last years ▶

Veronika Hladnik Zakotnik ✉

14:15–14:30 | EMS2025-112 ★ | Onsite presentation

MetComms as an international platform for discussion about scientific, operational, and innovational knowledge in meteorological communications ▶

Filip Bukowski and Valentina Grasso ✉

14:30–14:45 | EMS2025-298 ★ | Onsite presentation

Weather warning system in Tuscany (Italy): assessing user needs and the gap between expectations and predictability ▶

Valentina Grasso, Giulio Bettl, Francesco Pasi, Claudio Tel, Tommaso Torrigiani, and Bernardo Gozzini ✉

14:45–15:00 | EMS2025-193 ★ | Onsite presentation

Meteorological measurements and weather forecasts presentation for researchers and higher level industrial users ▶

Marija Zlata Božnar, Boštjan Grašič, Primož Makar, and Darko Popović ✉

15:00–15:15 | EMS2025-176 ★ | Onsite presentation

Serious gaming to create spaces for meaningful dialogue between producers and users of subseasonal to seasonal forecasts ▶

Ingrid Vigna, Anders Sivle, and Jelmer Jeuring ✉

15:15–15:30 | EMS2025-111 ★ | Onsite presentation

Climate Cards: Battle of the Weather Stations! ▶

Matija Klančar ✉



Norwegian
Meteorological
Institute

Thank you!

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