

An aerial photograph of a Swiss mountain range. In the foreground, the wing of a Swiss Air Force aircraft is visible, featuring a red oval with a white cross. In the upper right, another Swiss Air Force aircraft, a Pilatus PC-12, is flying. The aircraft has a red stripe and the registration number A-815. The background shows a vast mountain range under a blue sky with scattered white clouds. A lake is visible in the lower left corner.

MeteoSwiss News

Markus Aebischer

Head of Key Account Management and Distribution

News for glider &
balloon pilots



Adjustment in the forecasts

- **Harmonisation layout and content and same publication rhythm and frequency in German and French**
- **Covering entire surface of Switzerland**
- **Glider forecast:**
adapted seasonal publication from 1.3. – 30.10.



MeteoSwiss



Replacement of Regtherm/Toptherm

Planned introduction in Spring 2024

- **Gridded data**
- based on **ICON Model**
- Parameter: Lift ratio, potential flight distance, top of thermals
- **4 daily updates** (00h, 06h, 12h, 18h)
- Available on MeteoSwiss **In-App aviation weather**
- Update will follow

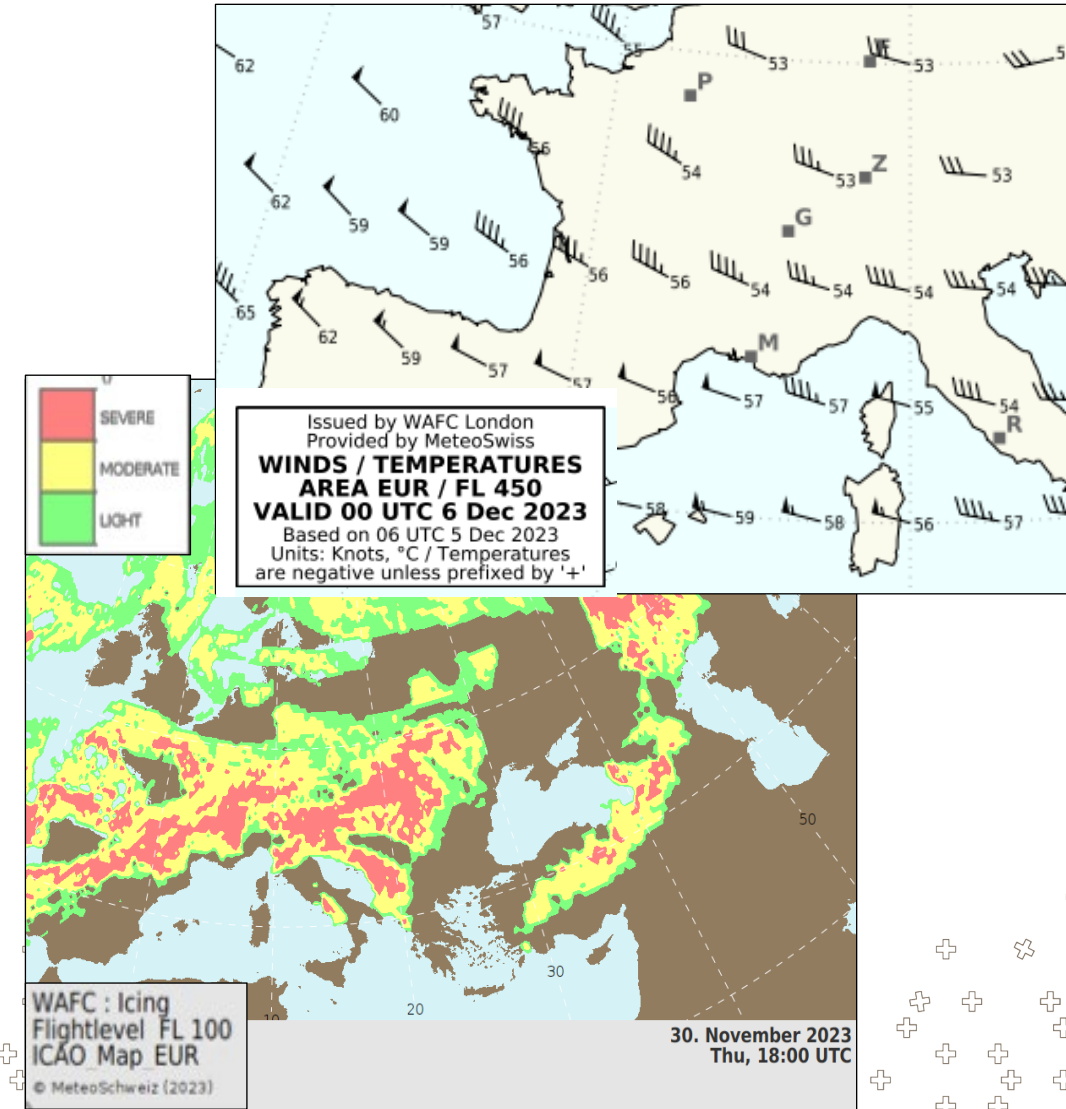


MeteoSwiss



Improved/new WAFC Weather Charts

- **5x increased spatial resolution (0.25 degrees)** for Wind / Temp
 - **Improved algorithms** for Icing und Turbulence
 - **More flightlevels and timesteps** available
- **Distribution on request** via TAMS or data delivery



Project ICON-22: Change of model system

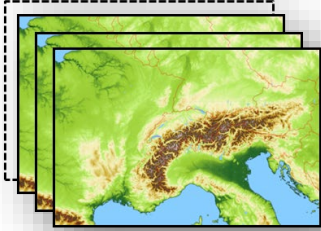


Project ICON-22: Change of model system



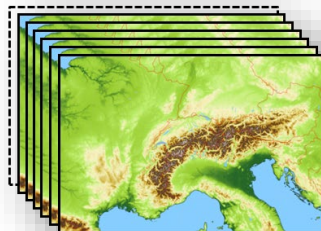
COSMO-1E

33 hour forecasts, 8x per day
1.1 km grid size
11 ensemble members



COSMO-2E

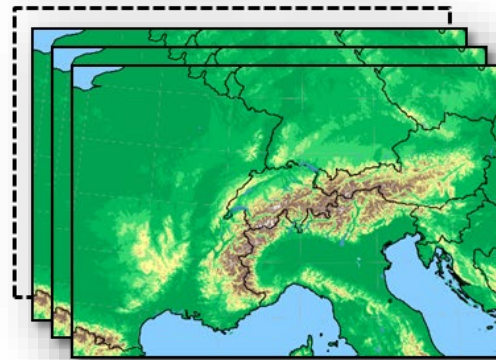
5 day forecasts, 4x per day
2.2 km grid size
21 ensemble members



New model systems: ICON-CH1-EPS and ICON-CH2-EPS

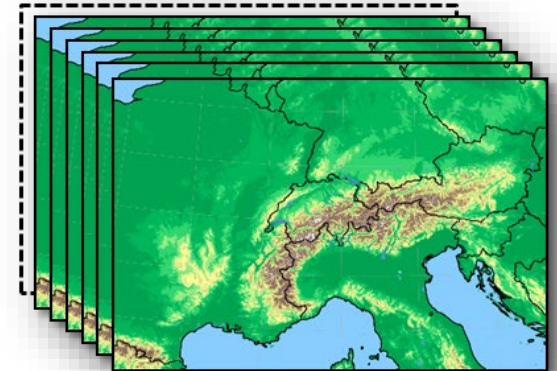
ICON-CH1-EPS

33 hour forecasts, 8x per day
1.1 km grid size
11 ensemble members

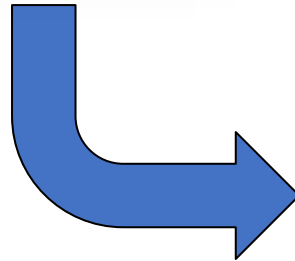


ICON-CH2-EPS

5 day forecasts, 4x per day
2.2 km grid size
21 ensemble members



«quasi 1:1-replacement»



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**KENDA ensemble data assimilation system:
LETKF, 40+1 members at 1.1km, hourly cycling**

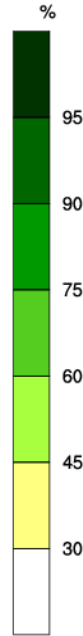
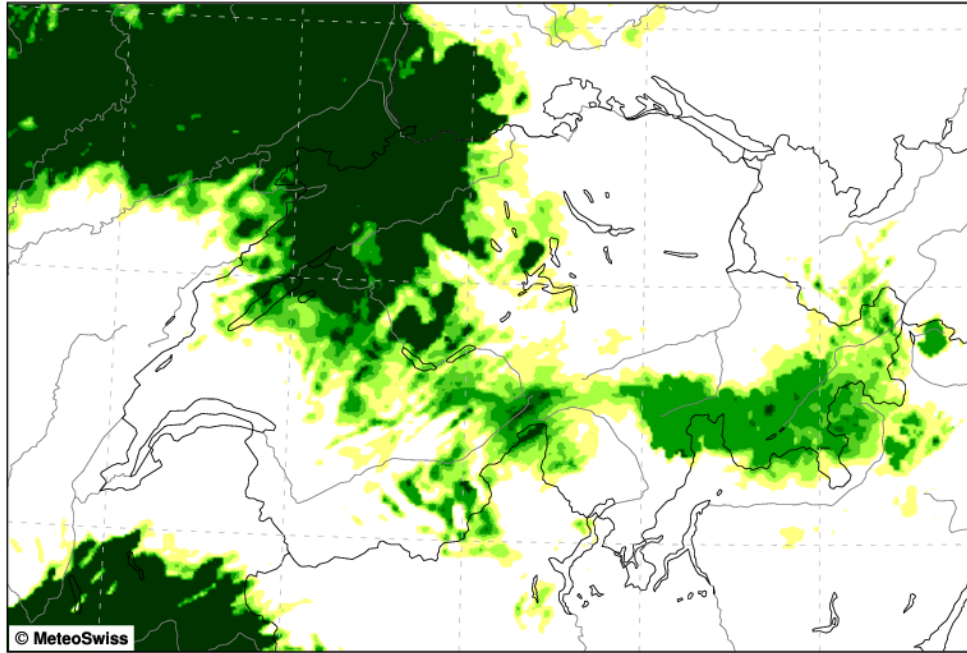


Model characteristics

COSMO-1E

Medium Cloud Cover (p=400-800hPa or z=8-2km) (CTRL)

Tue 12 Sep 2023 06UTC
11.09.2023 00UTC +30h

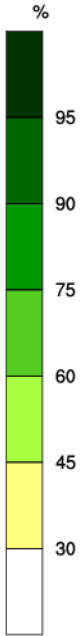
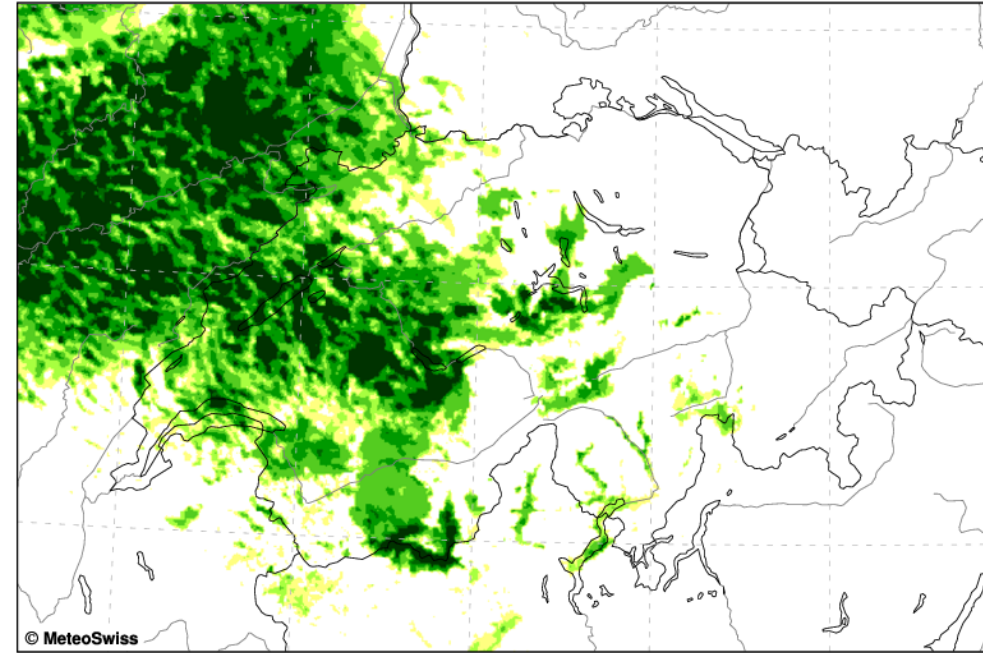


Mean: 33.8 %

ICON-CH1-EPS

ICON-CH1-EPS ENSEMBLE FORECAST
Medium Cloud Cover (p=400-800hPa or z=8-2km) (CTRL)

Tue 12 Sep 2023 04UTC
11.09.2023 00UTC +28h



Mean: 25.9 %

Basically similar characteristics, but cloud scheme clearly behaves differently:
in ICON clouds less binary and with finer-scale structures



Summary of the verification

- **Spatial and temporal structure better** predicted by **ICON** than by COSMO (all standard prediction sizes)
- **Probabilities better** predicted by **ICON ensembles** than by COSMO ensembles (all standard prediction sizes)

However, **ICON shows partly larger biases** especially for

- 2m temperatures in valleys
- Global radiation in valleys
- Wind speed in the mountain regions in spring and summer

→ Overall, **ICON-CH1/2-EPS** is clearly better than **COSMO-1/2E**

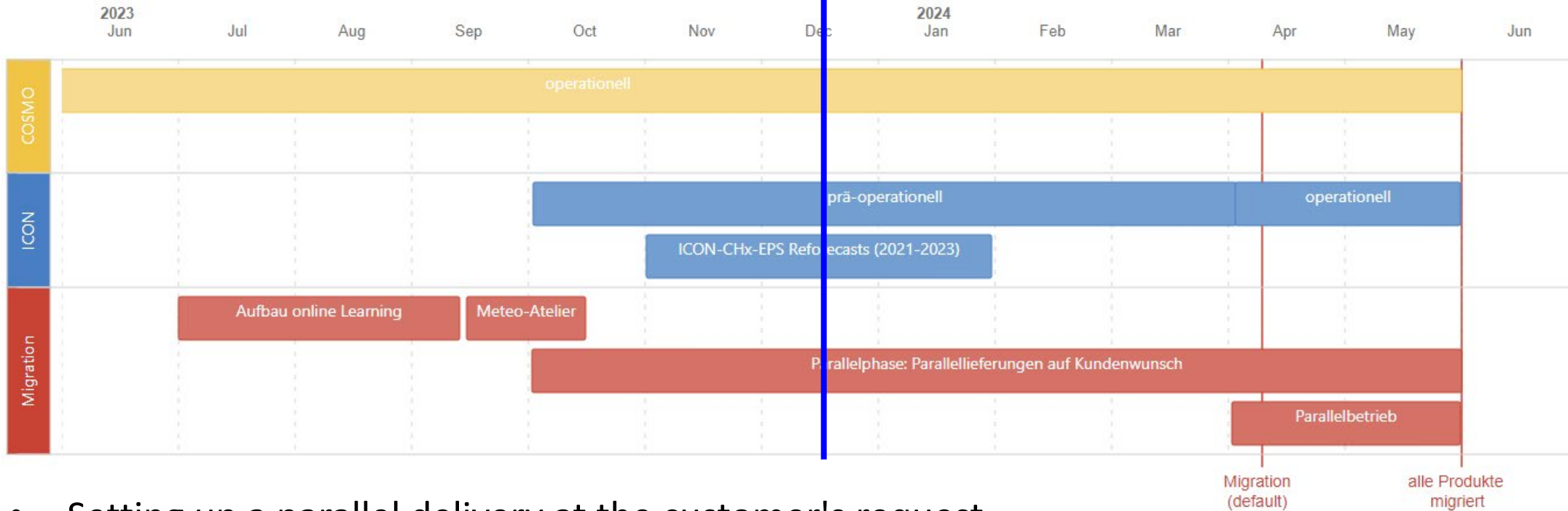
MeteoSwiss



Migration to ICON

today

- pre-operational: 2.10.2023
- operational: 2.4.2024

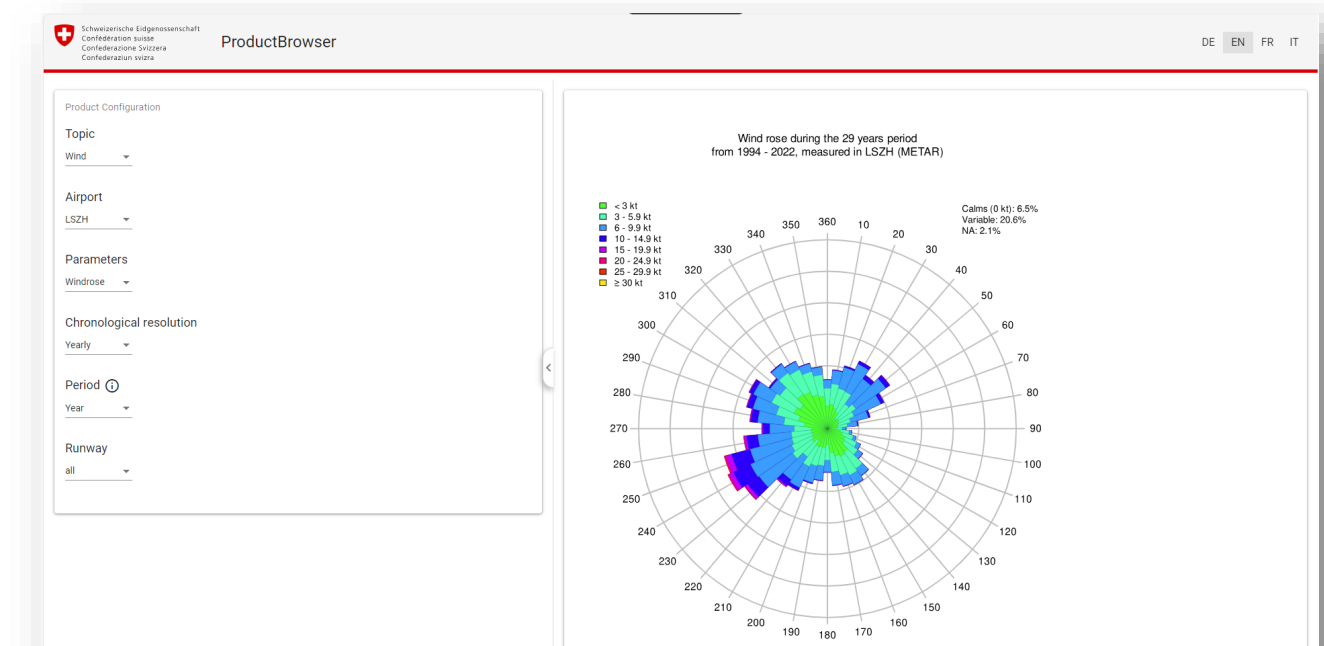


- Setting up a parallel delivery at the customer's request
- Calculation of reforecasts for the provision of training data
- Target: Migration of all products to ICON by the end of May 2024

Aeronautical Climatological Information



Aeronautical Climatological Information



- New: Web application replaces reports
- Access password protected. Request mailto: fwinfo@meteoswiss.ch
- ca. 4000 graphics at different aerodromes
wind, visibility and cloud base, temperature, air pressure and weather phenomena

MeteoSwiss App 3.0



10 years of the MeteoSwiss App

MeteoSchweiz @meteoschweiz · 22. Feb.
Es ist soweit! Heute hat
Seit 2013 hat sich die A
bei rund 850 Millionen.
die regelmässige Nutzu



14 9

MeteoSchweiz @meteoschweiz · 23. Feb.
Nicht nur das Wetter, sondern auch die #MeteoSwissApp wandelt sich
2013 aus – und so heute:



08:30
MeteoSchweiz
Wetter vor Ort
Wochenprognose
Animationen
Gefahren
Blog
Meswerte
Sport & Gesundheit
Wetterbericht
Flugwetter
Meteo Meldungen
Glattpark (Opfikon)
Mi Do Fr Sa So Mo
2°|9° -1°|11° 3°|11° 7°|13° 5°|10° 2°|9°
8.149

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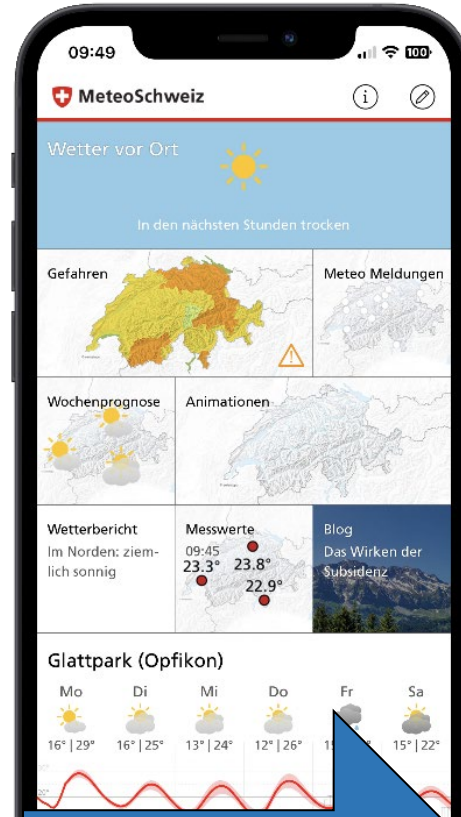
Evolution instead of Revolution



V1.0
2013
MeteoSwiss



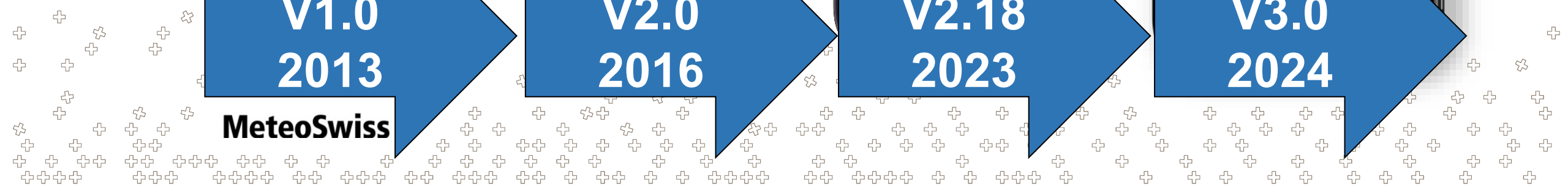
V2.0
2016



V2.18
2023



V3.0
2024



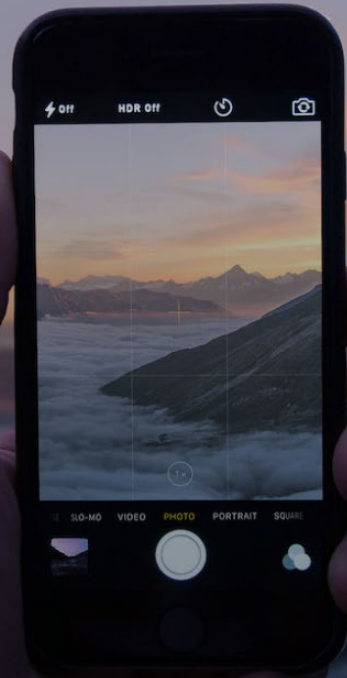


App 3.0: New Homescreen

from January 2024

Wir machen...
**Digitale Produkte
für jedes Wetter**

z.B. MeteoSwiss



MeteoSwiss

Finance - MET costs

Lukas Schumacher
Head of Finance and Logistics





MET costs 2023

- Cost ceiling for civil aviation, defined by FOCA, CHF 14.5 million per year
- Valid for the entire reference period 3 (2020 – 2024)
- Reimbursement (CHF 2.8 million in the years 2020-2022) terminated



Financial development 2021 – 2023 and financial outlook 2024

Kosten Flugwetter Zivilluftfahrt (in Mio. CHF)	2021	2022	2023 Erw.	2024
Voranschlag	14.51	14.51	14.51	14.51
IST	10.85 *	10.85 *	<i>noch offen</i>	-
Abweichung	- 3.66	- 3.66	-	-

* incl. reimbursement 2020-22 (CHF 2.85 million)

MeteoSwiss




New cost accounting

- New cost accounting implemented in 2021/2022
- Cost ceiling of CHF 14.5 million for RP3
- Full audit of the new cost accounting by the Swiss Federal Audit Office in 2022 → no significant audit findings
- Aviation weather accounting audited by the FOCA in 2022/2023 → final report pending



Outlook 2024

- First draft of the MET cost estimates (costs for en route MET services only) for the Reference Period 4 (RP4; 2025 – 2029) submitted to FOCA in summer 2023.
- User Consultation for RP4 planned mid-2024 (together with skyguide).
- Future handling of the MET core cost (costs for basic meteorological infrastructure and services) currently under discussion. FOCA and MeteoSwiss aim to agree on a common, clear, stable and sustainable solution for RP4.

An aerial photograph showing a Swiss Air Force aircraft (A-815) flying over a mountainous landscape. The aircraft is silver with red accents and a white cross on its tail. The foreground shows the wing of the viewer's aircraft, also featuring a white cross on a red oval background. The background consists of rolling mountains and a valley with a river and a town.

«Vision without action is merely a dream.
Action without vision just passes the time.
Vision with action can change the world.

(Joel A. Barker)



Save the date: 12. Dezember 2024





Goodbye, see you next year!





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Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Swiss Confederation

Federal Department of Home Affairs FDHA
Federal Office of Meteorology and Climatology MeteoSwiss

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