

## **Delft-FEWS User Meetings 2024**

**Delft-FEWS Vision & Roadmaps**

Delft-FEWS Product Management

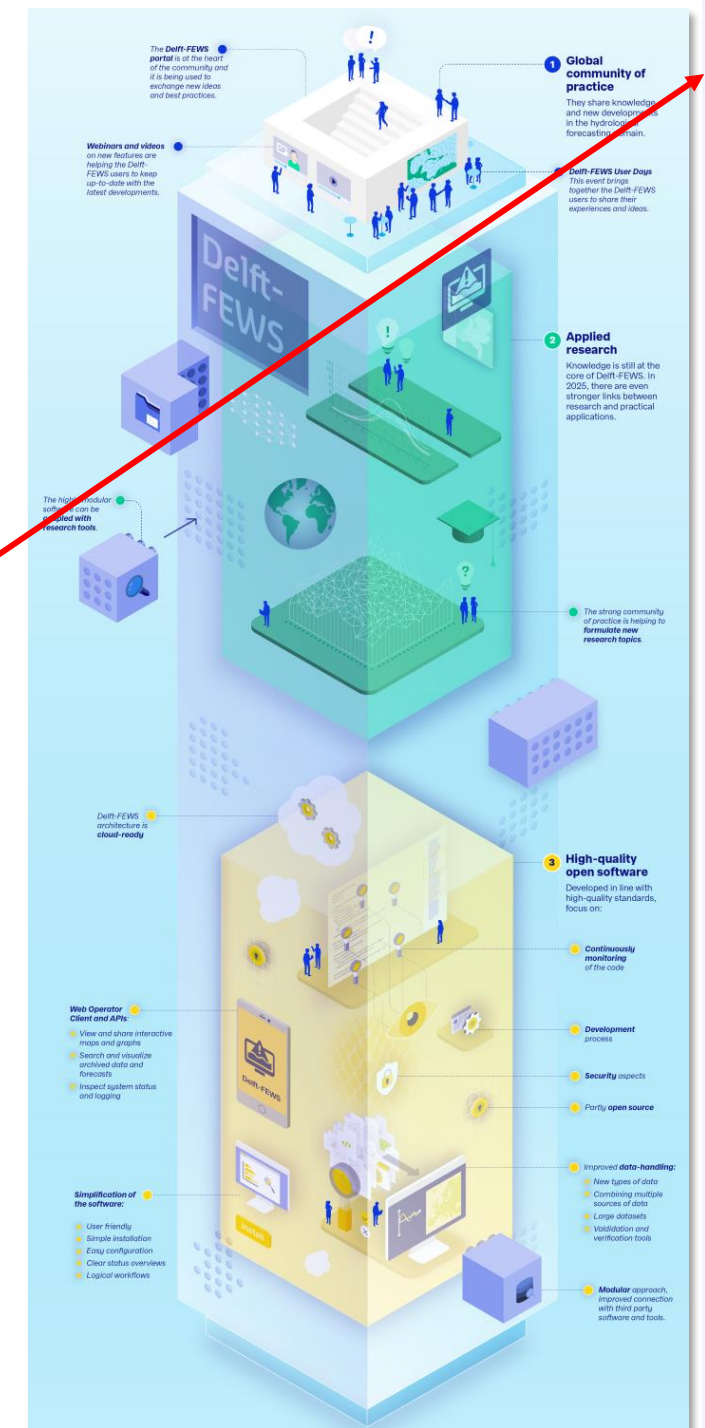
June 2024

# Table of contents

- Delft-FEWS Vision 2025
  - Roadmap 2024
- Timeline of ongoing Product Visions
- Other ongoing product visions (details)
  - Open Archive
  - Web Operator Client
- Evaluation Delft-FEWS Vision 2025
  - Achievements
  - User questionnaire
- Towards a new product vision



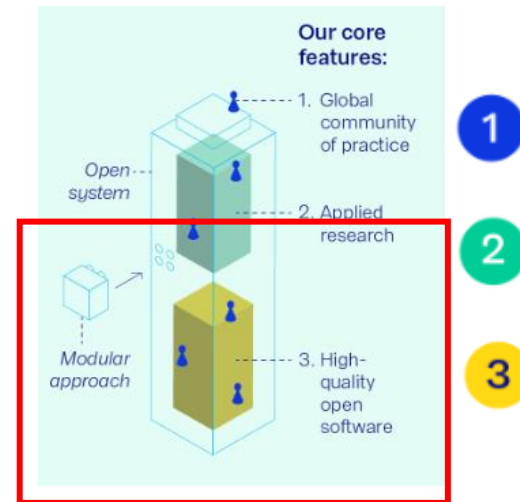
Click this icon for more info...



# Delft-FEWS Vision 2025...

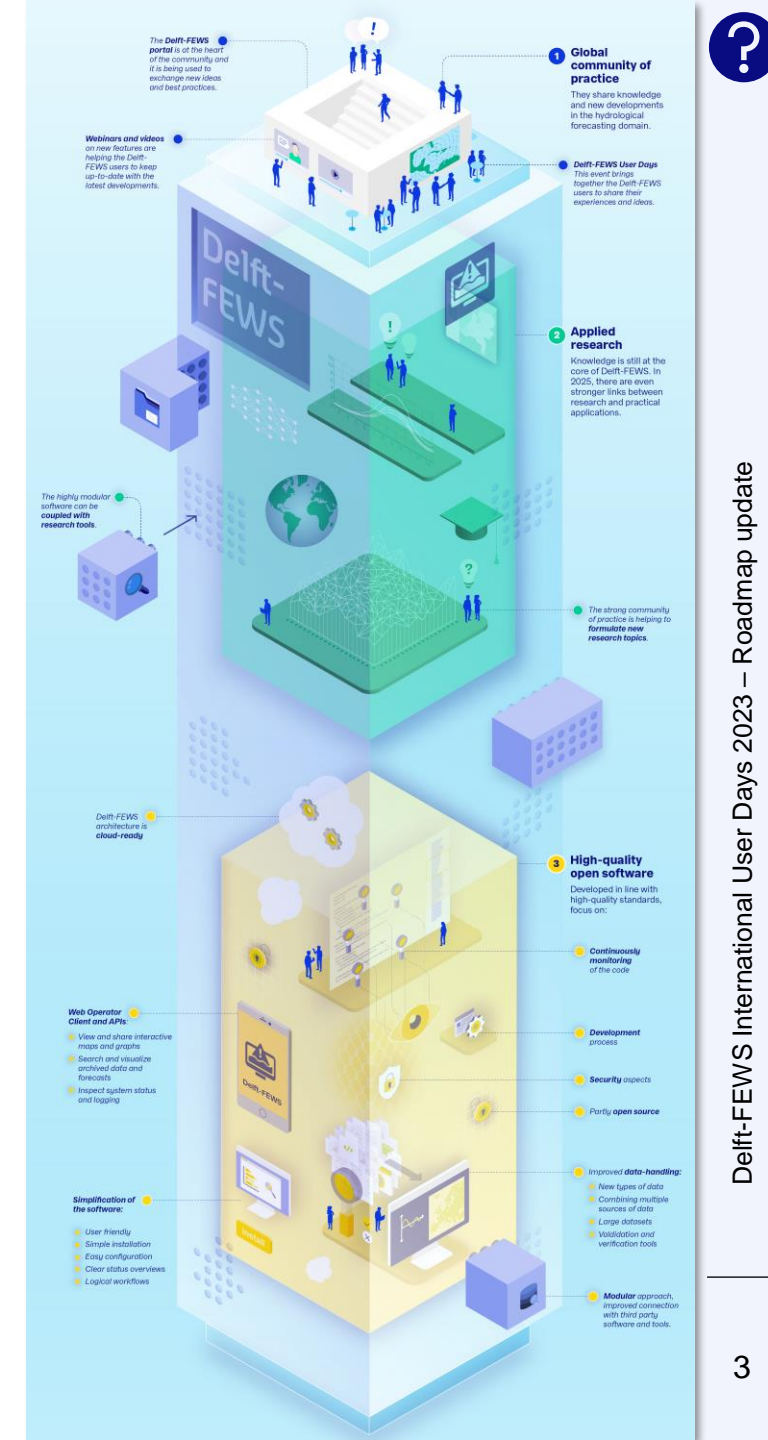
- Delft-FEWS Vision 2025 core features

- 1 Global Community of Practice
- 2 Applied Research
- 3 High quality open software



- Show and tell...story, presentations and infographic

- Delft-FEWS [portal](#)
- [Video](#)
- [User Days / Events](#)
- Updates to the [CSB](#)



# Delft-FEWS Vision 2025

## Roadmap themes over the years

Roadmap theme	2020	2021	2022	2023	2024
Backlog old roadmaps (vision 2020)		finished			
Code clean-up					•
Code quality				finished	
Release process and test automation					•
Security				finished	
What-if scenario's / computational framework					•
Cloud developments					•
Python integration					•
Web Operator Client				MVP	•
Open Archive		MongoDB		new vision	•

# Roadmap 2024

Theme	1 Global Community of Practice	2 Applied Research	3 High quality open software	Budget (k€)
Code clean up			•	25
Release process and test automation			•	25
Cloud developments	•		•	35
What-if scenarios		•		20
Python interaction		•		
Web operator client	•		•	70
Open Archive		•	•	45
Consistent configuration	•		•	15
Delft-FEWS vision 2030	•	•	•	45
<b>Total</b>	<b>4</b>	<b>4</b>	<b>7</b>	<b>280</b>

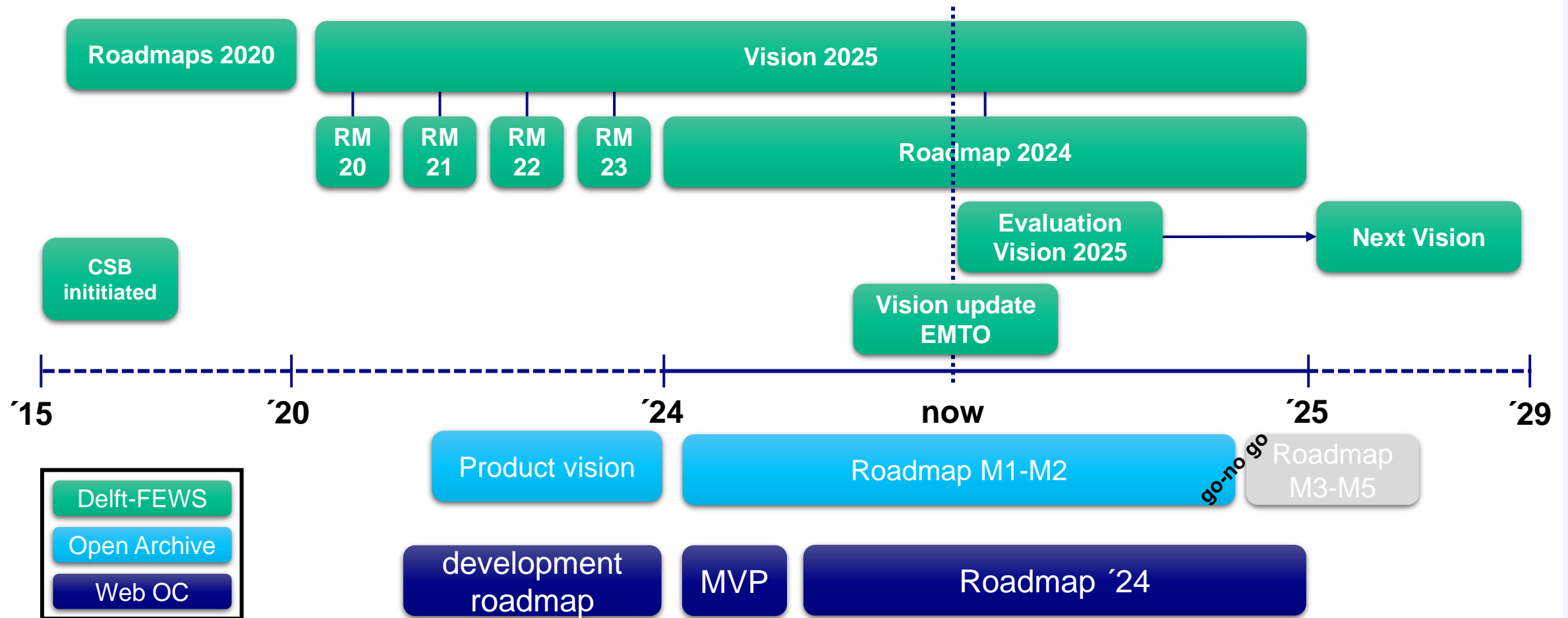
# Roadmap themes in more detail

Theme*	Examples or main activities
Code clean up	Keep up pace with code refactoring based on thorough migration plans
Release process / test automation	Per release, automate laborious tests. Example Pilot Explorer
Cloud developments	Keep up-to-date with Azure, explore AWS services and expand to Docker/Kubernetes
What-if scenarios	Adjacent to projects complete and mature the what-if scenarios
Python interaction	Skipped in 2024
Web operator client	Adjacent to projects, contribute to new developments, robust testing and product organisation
Open Archive	Redesign and implement internal storage solution/architecture enabling openness and data science
Consistent configuration	Explore possibilities and tools enabling Deltares employees, consultants and end-users learning, understanding and applying most recent configurations and benefit from each other
Delft-FEWS vision 2030	Generating, collecting and managing input for the new product vision



# Timeline of ongoing Product Visions

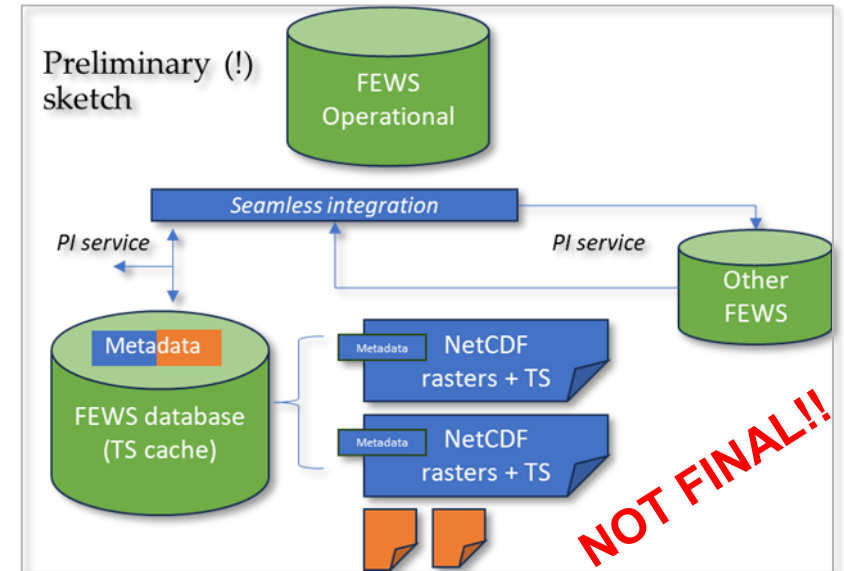
Context and coherence with other product visions in our PMT



# Other ongoing product visions

## Open Archive

- **Open Archive** vision document (end of 2023) describing:
  - (short term) performance & usability improvements
  - Considerations for redesign of 'internal' storage solution/architecture by creating more openness enabling data science
  - (longer term) implementation of this new design and support migration of clients
- **Current status** (June 2024)
  - Performance & usability improvements done for 2024.01
  - Identified remaining developments (client-server system & open archive dependencies and interactions) to be implemented in 2024.02
  - New internal storage solution / architectural design is done: next steps discuss, elaborate & estimate.

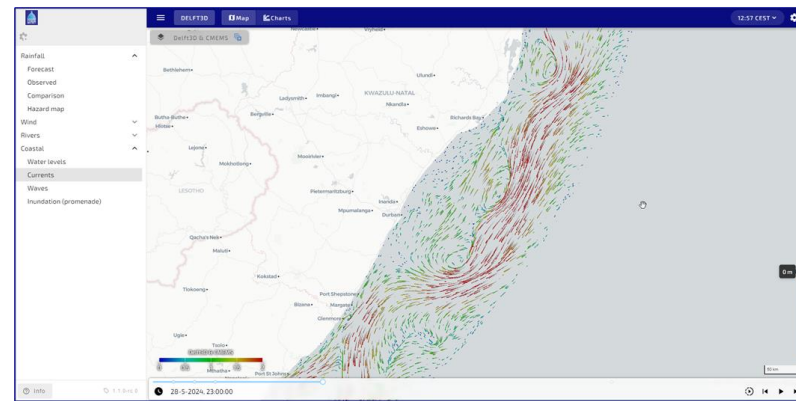
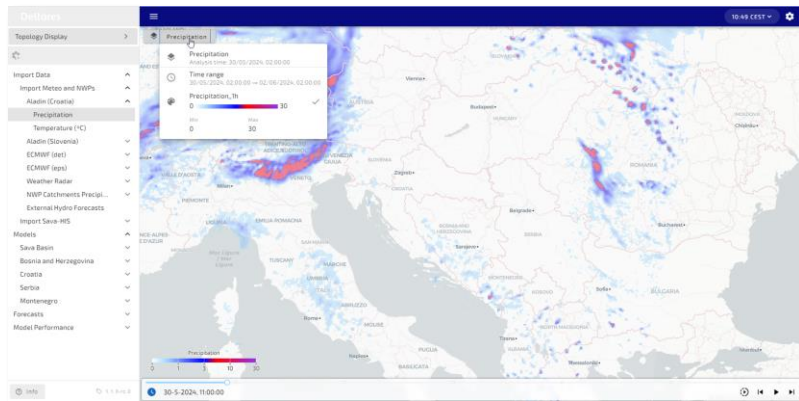




# Other ongoing product visions

## Web Operator Client

- **Web OC MVP** launched in Jan 2024: WebOC is now part of the Delft-FEWS Product Suite!
- Long-term product **vision not yet** available
- **Roadmap 2024**: prioritized list of development themes & domains
  - A lot of (international) interest for new features
  - Component of S&M contract
  - Alignment strategy with Delft-FEWS – FEWS Webservices – Web OC
  - Continued attention for security, performance, testing & deployment
  - Course material: work-in-progress
  - Code contributions by community: to be investigated



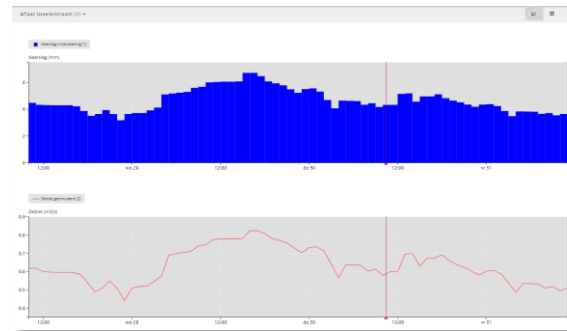
# Web Operator Client Developments (more details)

## Developments 2024

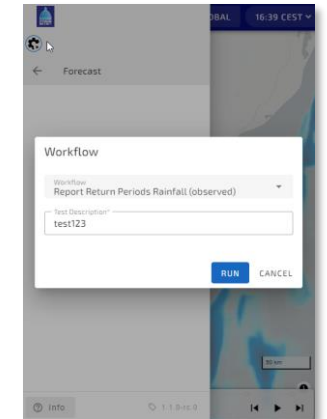
- Run tasks from Web OC
- Show Delft-FEWS reports in Web OC
- Extend options to view historical data
- Support for multi timezones
- Custom CSS configuration: fonts, menu color etc
- Show threshold crossings, icons
- Add/Edit scalar data in table
- Improved visualisations for mobile devices

## Future Developments

- Coupling Schematic Status Display to Topology
- Coupling System Monitor to Topology
- Simplify use of permissions
- Show location attribute/meta data
- Explore new alternatives for graphs

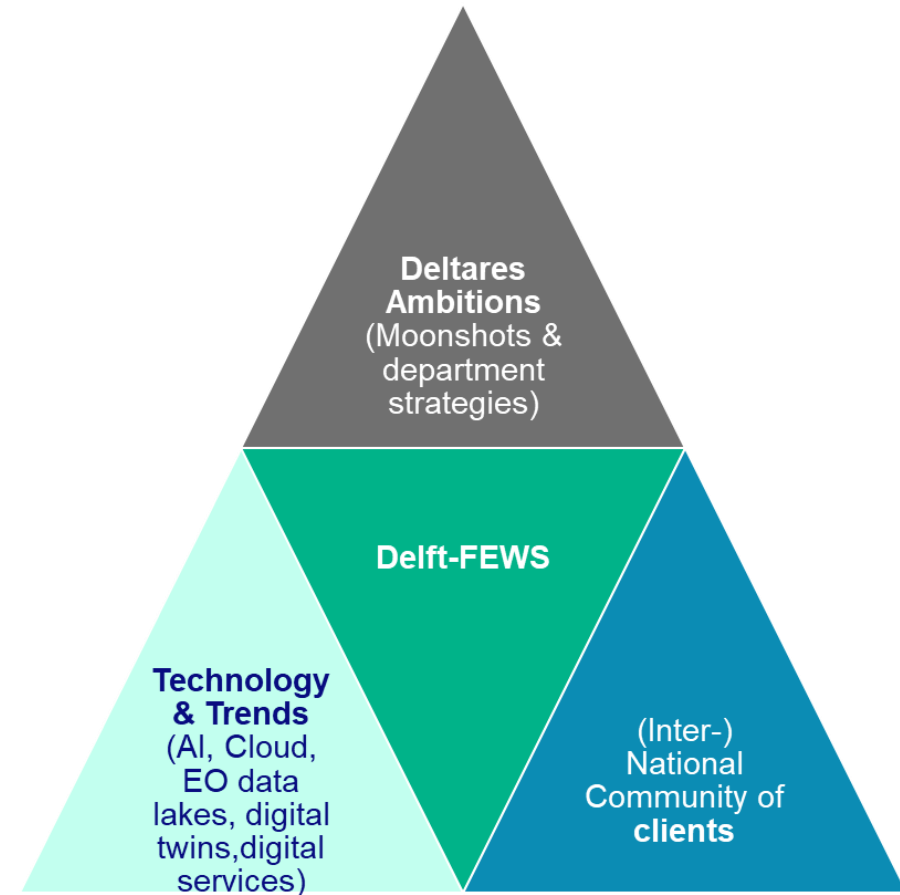


Phoenix Reservoir No. 1	
Date	Rainfall Observed
27-5-2024, 16:40:00	
27-5-2024, 16:45:00	
27-5-2024, 16:50:00	
27-5-2024, 16:55:00	
27-5-2024, 17:00:00	
27-5-2024, 17:00:37	2 Reliable
27-5-2024, 17:05:00	
27-5-2024, 17:10:00	
27-5-2024, 17:15:00	
27-5-2024, 17:20:00	
27-5-2024, 17:25:00	
27-5-2024, 17:30:00	
27-5-2024, 17:35:00	
27-5-2024, 17:40:00	



# Towards a new product vision

- Current product vision is in its last year...
- All software products (@Deltares) require one...
- For Delft-FEWS: input will be a combination of:
  - Our international user community
  - External trends & technologies
  - Deltares ambitions
- Will apply to the whole Delft-FEWS product suite (so including Open Archive and Web OC)
- Objective: present the outline of new vision during the Delft-FEWS International User Days in november 2024

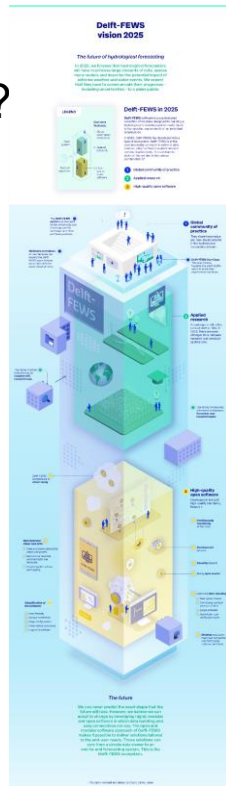


# Towards a new Delft-FEWS vision...

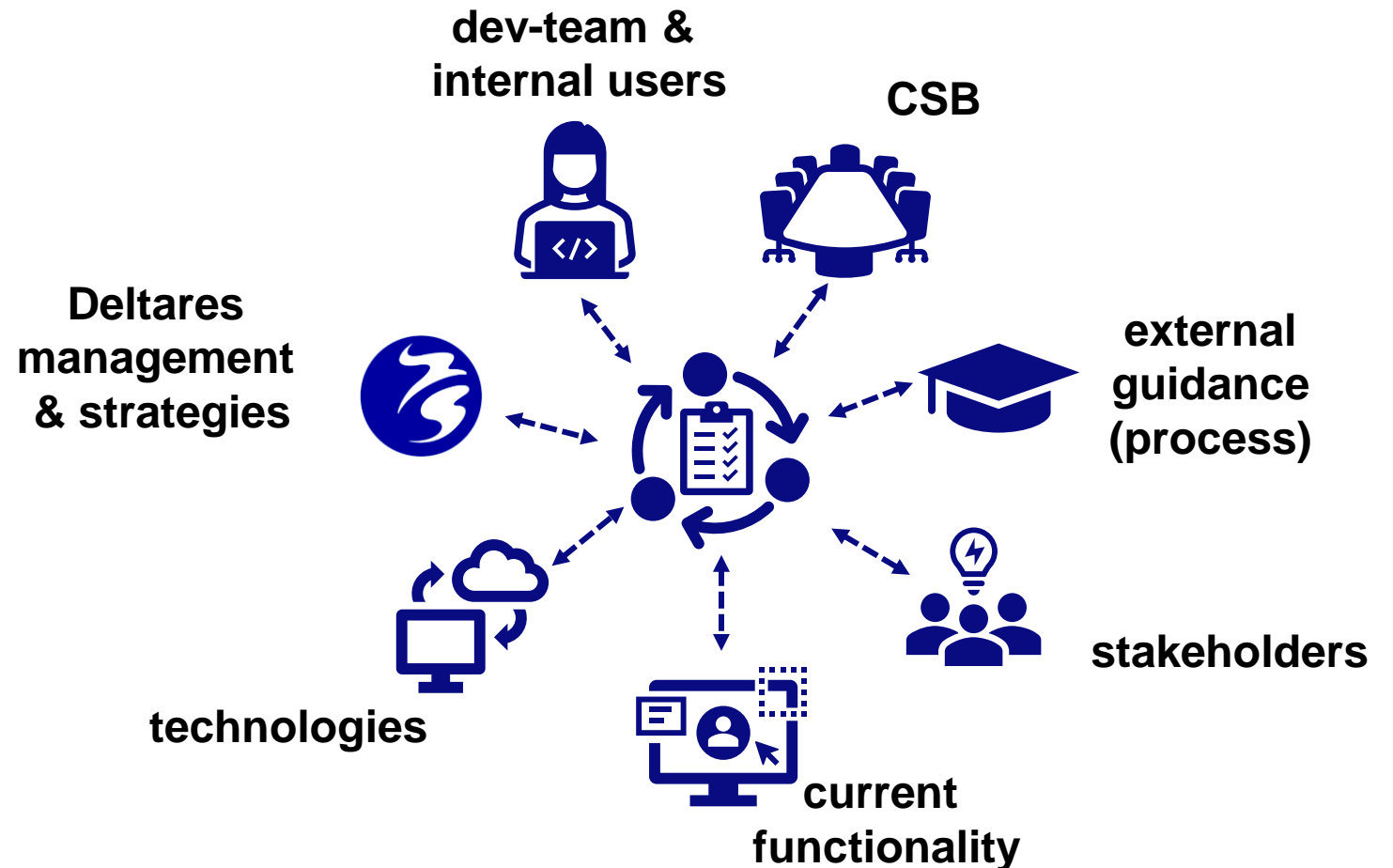
Successor of current *Delft-FEWS 2025* vision

## Evaluate & share (Q1-Q2 2024)

- What did we accomplish?
- What did we learn?
- What should change?
- ...



## Create a new product vision (Q3-Q4 2024)



# Delft-FEWS Vision 2025 Evaluation

- Format: Microsoft **Form**
- Starting with a **summary** of the plans
- Overview of **achievements**
- **12 questions** (open and multiple choice)
- CSB, S&M clients (personal replies!)
- **Distribution:** End of June 2024

## Evaluation Delft-FEWS vision 2025 and outlook

Jun 14, 2024

The objective of this evaluation form is to obtain feedback on the products from and the communication about our Delft-FEWS vision 2025.

### The Delft-FEWS 2025 vision: a brief summary of the objectives and achievements (part 1)

#### Objectives Vision 2025

The Delft-FEWS vision 2025 was built on three main components: community of practice, applied research and high-quality open software and written down in the form of a story line about the future of hydrological forecasting in the year 2025. The main objectives of the vision are:

- The community has flourished by sharing knowledge and new developments.
- Stronger links between research and practical applications.
- The quality of the code is continuously monitored to safeguard compliance with pre-defined quality criteria.
- The software is simpler to install, configure and use.
- Users can now access the software and data on their smartphone.
- Delft-FEWS can import or visualize data from numerous external sources, including social media.
- Delft-FEWS as an Ecosystem (tailored to end-users need)

#### Yearly roadmaps

To keep the work manageable and to be able to see and easily communicate about our progress, the Delft-FEWS vision 2025 has been subdivided into annual roadmap plans. Each year certain aspects of the Delft-FEWS vision are picked up and converted into concrete tasks for the improvement of processes or into clearly defined blocks of development work. This also helped in adjusting the plans if things changed.

#### Communication

Information about our yearly roadmap portal. The progress on our yearly roadmap is clearly defined focal points were

### The Delft-FEWS 2025 vision: a brief summary of the objectives and achievements (part 2)

#### Summary

Over the past years roadmaps have contributed to keep the software open and of high quality. The software has become more secure, we have increased the readability and quality of the code by automating tests and by replacing parts of the code. We have simplified the deployment of the software and are benefiting from cloud facilities like automatic scaling, deployment via templates and specific cloud services. A security matrix is available now alongside documents describing the secure deployment and configuration options for the different Delft-FEWS components. We have introduced version-based admin manuals and connectivity guides. We have adopted Open ID Connect methods and implemented ONASP procedures to update third party libraries in our branches.

For applied research, the archive performance has been optimized, the computational framework was developed, Delft-FEWS Python integration was investigated, and the what-if scenarios renewed to allow the use of Delft-FEWS for scenario studies, as well as in an operational setting. In 2023 we have developed a new Open Archive product vision. This document sets out a few possible scenarios to where the Open Archive could evolve to. Decisions on future steps will be coordinated in close collaboration with key stakeholders.

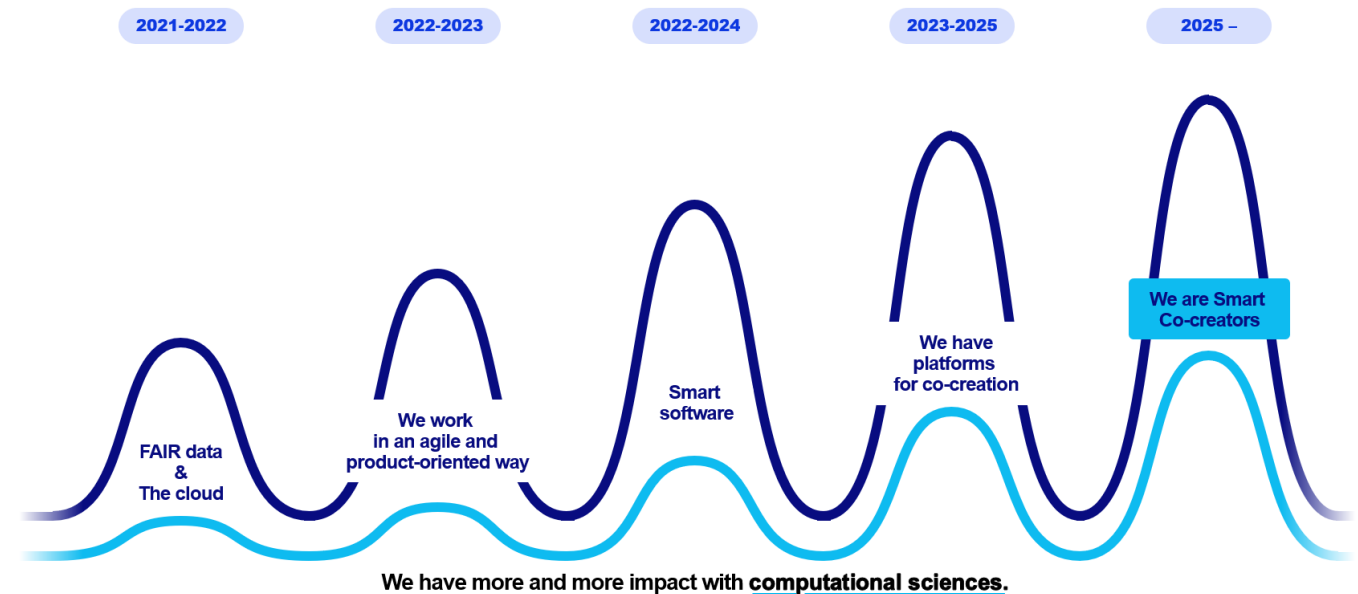
Furthermore, for the openness of the software, easy accessibility and more sharing with the community, the Web Operator Client was developed as an open-source component of the Delft-FEWS suite, allowing users to access and analyze their data from their browser and mobile devices.

In 2024 the roadmaps will contribute to developing migration plans (as part of the code clean up activities) to move from the old functionality to new functionality. This year we will also continue to improve the release process, further automate more functional component tests and GUI tests, to decrease the time required for release testing and for bug fixing.

For the cloud developments roadmap, we have teamed up with Dutch consultancy firms to co-create flexible FSS scaling, making optimal use of the benefits of the cloud. The Web OC required some final touches to get the 1.0 version ready for regular support and maintenance, and the performance of the current Open Archive will be further optimized and for future developments the vision and design will be refined in close collaboration with key stakeholders.

# Product Oriented Working

- Deltares defined 5 product lines
- Each product line has multiple products
- Per product fixed team
- FEWS team has 9-10 developers
- Product Owner per product
- Agile working process
  - Sprints (3 weeks)
  - Continuously improving





# Questions...



# Contact

-  [www.delft-fews.com](http://www.delft-fews.com)
-  [@DelftFEWS](https://twitter.com/DelftFEWS)
-  [linkedin.com/company/deltares](https://linkedin.com/company/deltares)
-  [fews-pm@deltares.nl](mailto:fews-pm@deltares.nl)
-  [@deltares](https://www.instagram.com/deltares)
-  [facebook.com/deltaresNL](https://facebook.com/deltaresNL)

