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GloFAS and GFM annual users' surveys

2022 results and follow-up actions

Nina Bosshard and Luca Molini

2022 Results for GloFAS

Nina Bosshard, SMHI

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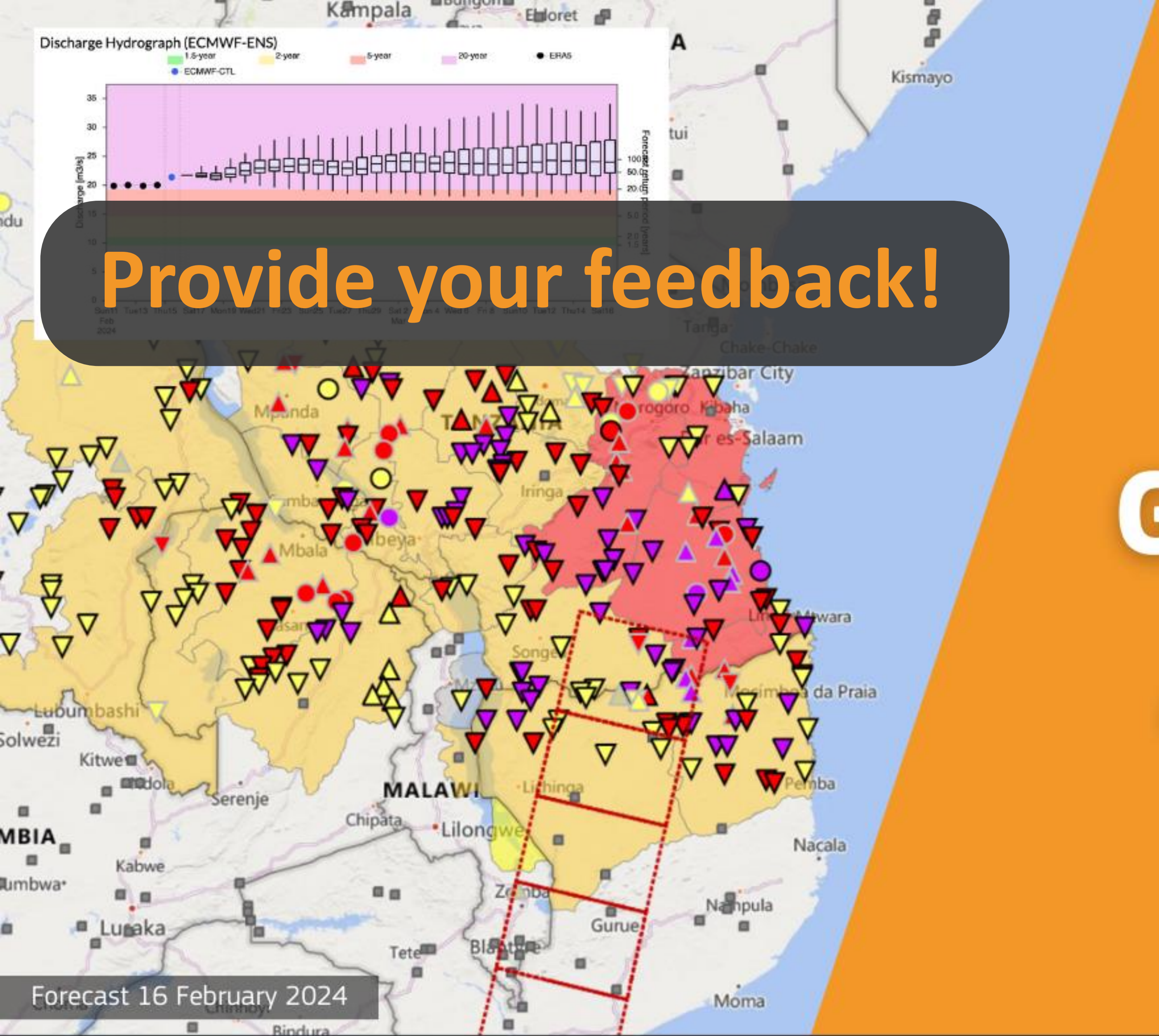
Discharge Hydrograph (ECMWF-ENS)
1.5-year
2-year
5-year
20-year
ERA5
ECMWF-CTL
Discharge [m3/s]
Forecast return period [years]
Kampala
Eldoret
Kismayo
Tanga
Chake-Chake
Zanzibar City
Morogoro
Kibaha
Dar es-Salaam
Mpanda
TANZANIA
Iringa
Mbeya
Mbala
Songea
Lindi
Mtwara
Mocimboa da Praia
Lubumbashi
Solwezi
Kitwe
Ndola
Serenje
MALAWI
Lichinga
Chipata
Lilongwe
Pemba
Nacala
Kabwe
Lusaka
Zomba
Nampula
Gurue
Tete
Blantyre
Moma
Bindura

Provide your feedback!

Forecast 16 February 2024

2023

GloFAS and GFM Annual Survey

Deadline: 14 March 2024

https://response.questback.com/smhi/glofasandgfmsurveyregarding2023

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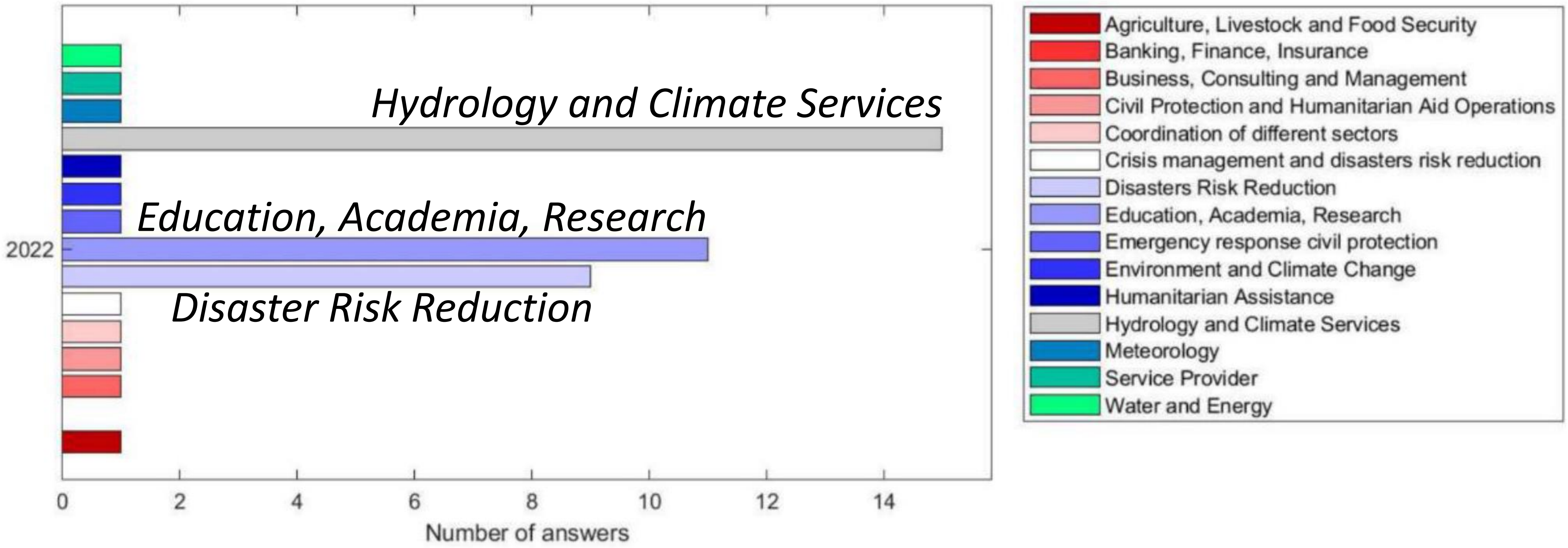
Users’ background

- » Reach out to more/other sectors?



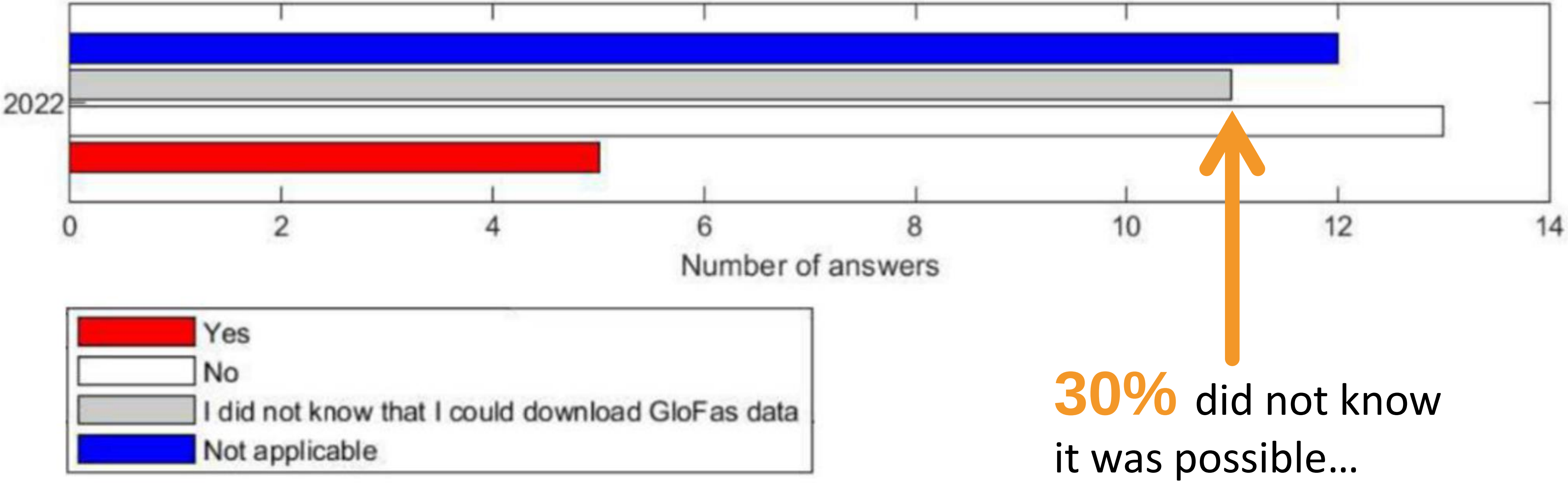
GloFAS Map Viewer functionalities

» Opportunity for the user to improve the experience of the service

“
- *Include a tool for changing the visibility of layers.*
- *Difficulties to move/navigate around (this was mentioned three times).*
- *Pop-out windows are difficult to find on small screens.*
- *Pop-out windows always show up on the top left corner hiding the main visualization tools.*
- *Layers are slow to load at times.*
- *It is challenging to look at multiple flood return periods.*
- *Country boundaries should be more visible.* ”

Are users downloading GloFAS data?

- » You can download GloFAS data!
- » Check out the CEMS-Flood Data User Guide for more information



30% did not know
it was possible…

We have been listening

» While there is overall a high satisfaction with the provided service, we implemented a number of changes, mainly improving communication:

- Continued review of the FAQ section, CEMS GloFAS User Guide
- Continued improvement of the internal protocol to respond to requests submitted via the GloFAS contact form
- Improvements of the GloFAS webpage, e.g. introduction of a new functionality for searching through the news archive or restructuring of the Resources-tab
- Improved communication of data download opportunities and modalities

» **Find out more reading the full report:** https://www.globalfloods.eu/get-involved/users-feedbacks/

2022 Results for GFM

Luca Molini, CIMA

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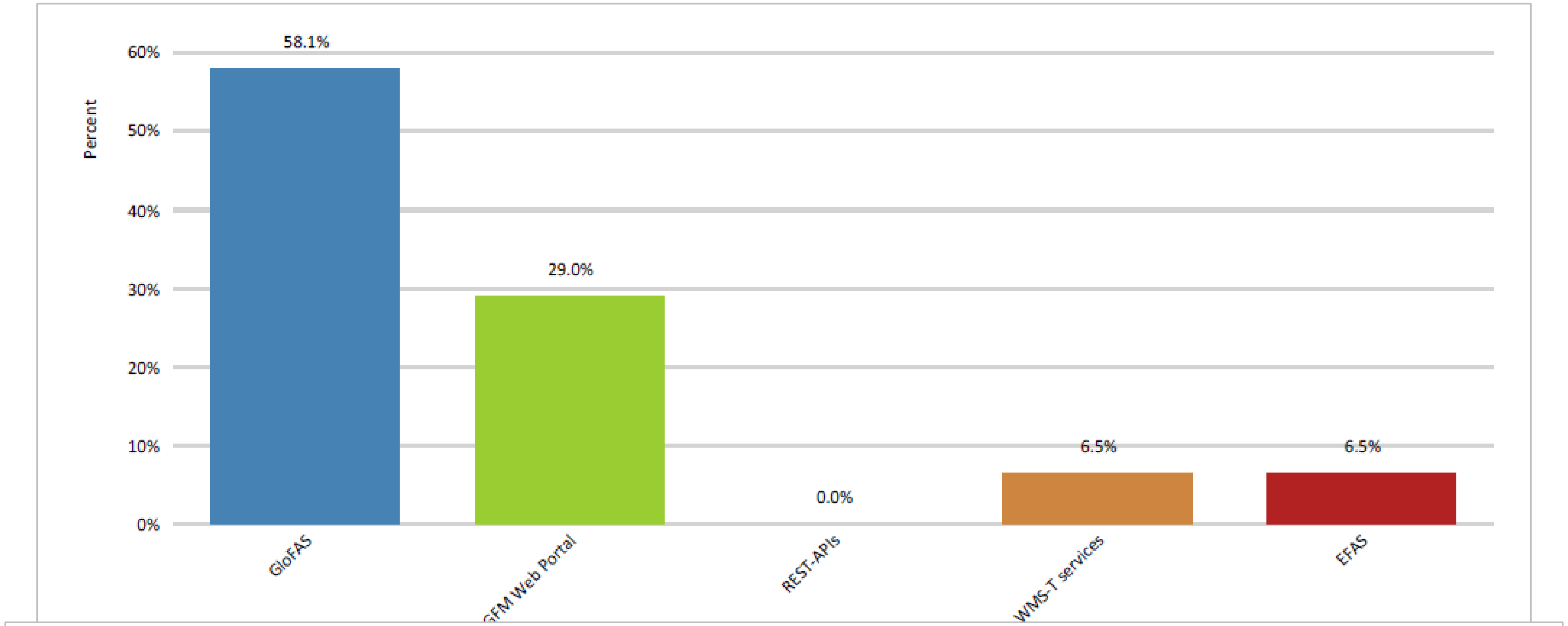
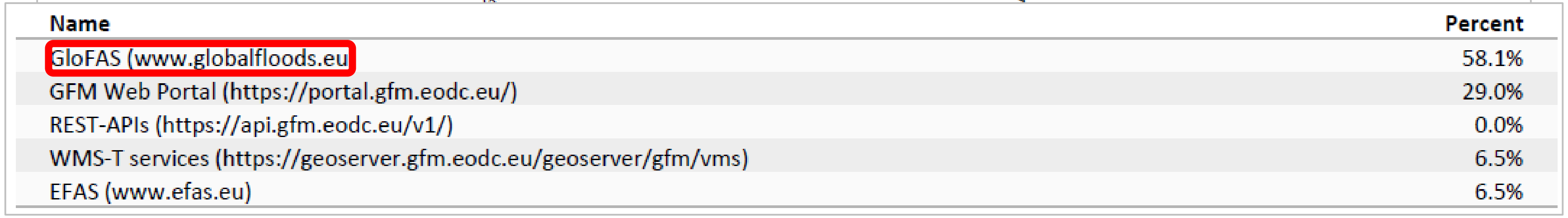
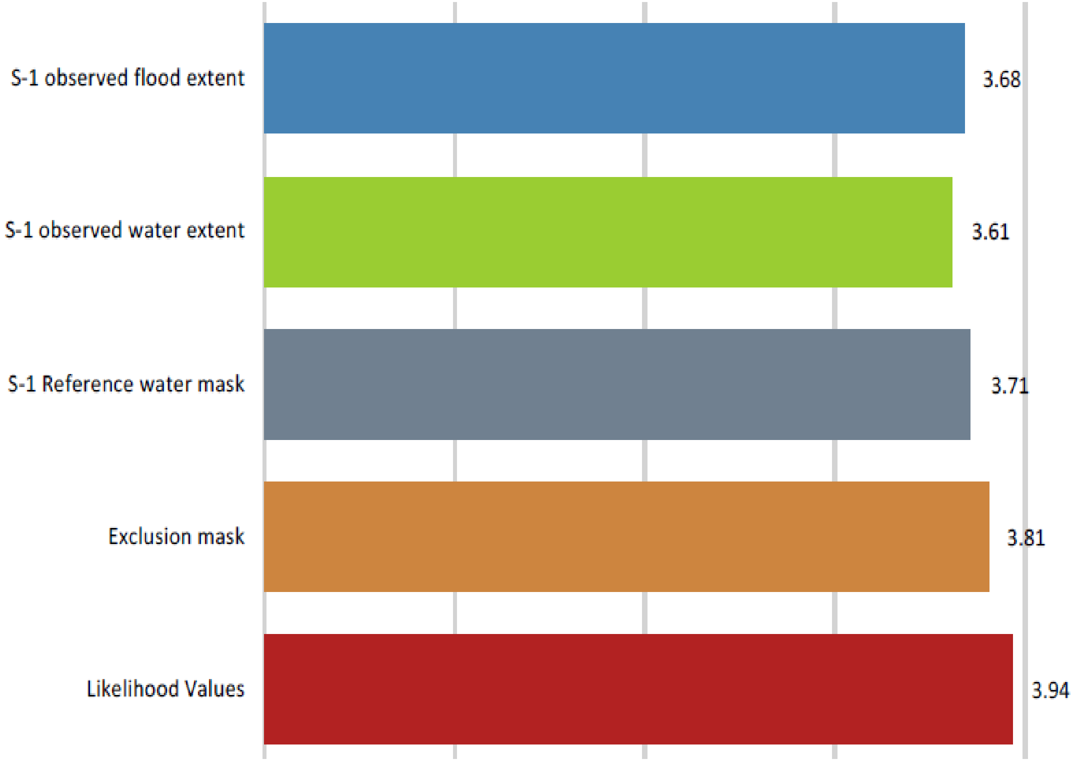
Most preferred channel to access GFM products

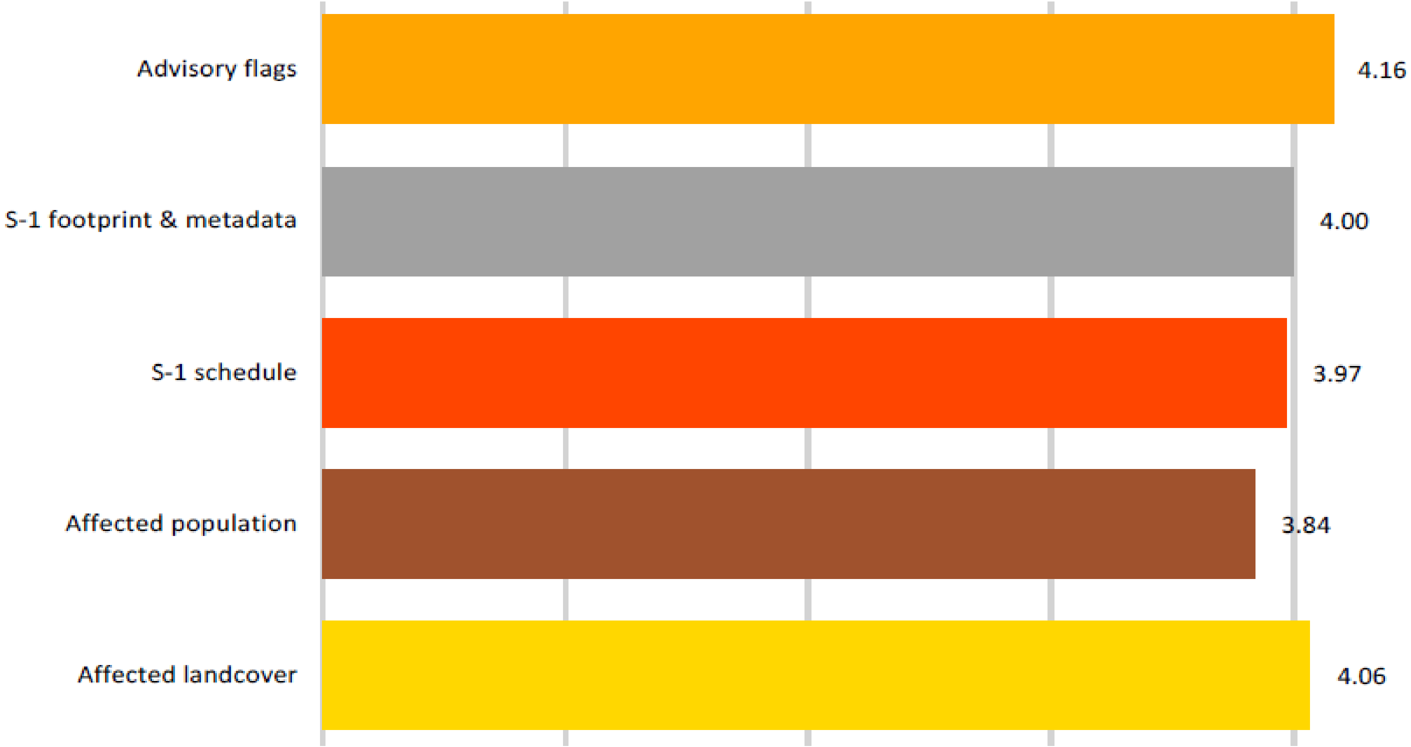




Name	Percent
GloFAS (www.globalfloods.eu	58.1%
GFM Web Portal (https://portal.gfm.eodc.eu/)	29.0%
REST-APIs (https://api.gfm.eodc.eu/v1/)	0.0%
WMS-T services (https://geoserver.gfm.eodc.eu/geoserver/gfm/vms)	6.5%
EFAS (www.efas.eu)	6.5%

Level of satisfaction with GFM products





Improvements and developments as suggested by the end users

1. User Experience

a. To change the colour coding for inundated areas (reference water, flood water, water-covered areas on aggregate) ✓

b. A clearer representation for the affected population layer, which is well known to be hard to spot given the very fine-scale of the GFM product output layers ✗

c. To make GFM layers more responsive ✓

d. To include more details in the description of the layers (add a link to the PUM and/or the PDD) ✗

e. To improve the pop-up legend ✓

Improvements and developments as suggested by the end users

2. General improvements

a. To double-check S-1 overpass schedule as sometimes they were found as inaccurate ✓

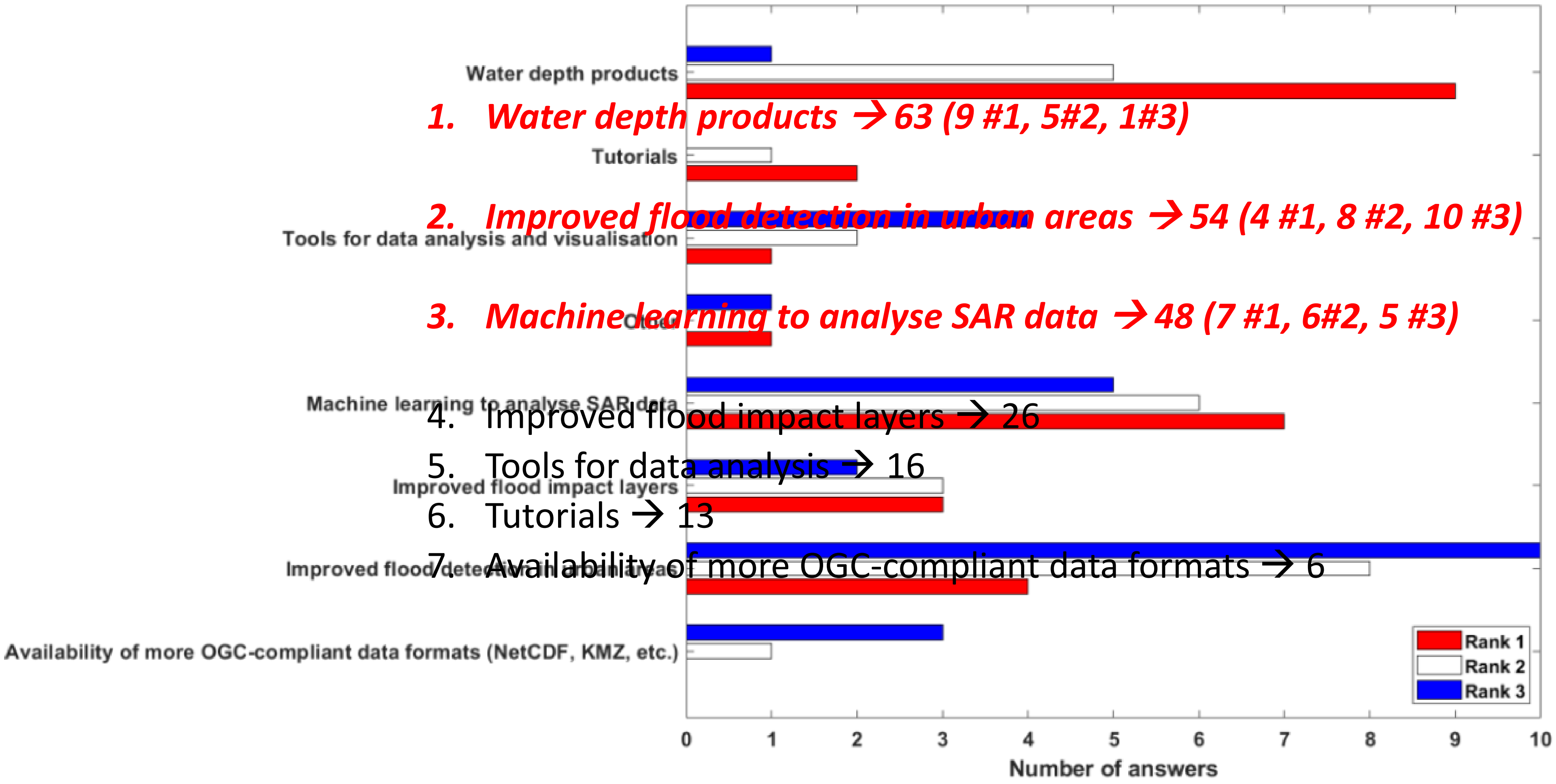
b. To better highlight the S-1 tiles that define GFM product output layers ✓

c. To enhance the reference water mask ✓

d. To add uncertainty (likelihood) and exclusion values also for the "reference water“ ✗

e. To refine the flood imagery on user-defined AOI rather than leaving it to the user ✓

Long-term developments/evolution for GFM



1. ***Water depth products → 63 (9 #1, 5#2, 1#3)***
2. ***Improved flood detection in urban areas → 54 (4 #1, 8 #2, 10 #3)***
3. ***Machine learning to analyse SAR data → 48 (7 #1, 6#2, 5 #3)***
4. Improved flood impact layers → 26
5. Tools for data analysis → 16
6. Tutorials → 13
7. Availability of more OGC-compliant data formats → 6

Flooded area (Situation as of 4 January 2024 at 17:24 UTC)

Shape future developments!

2023

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Thank you

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