

# openwashdata

a community effort to bring open data practices to the WASH  
sector

Lars Schöbitz

Global Health Engineering, ETH Zurich

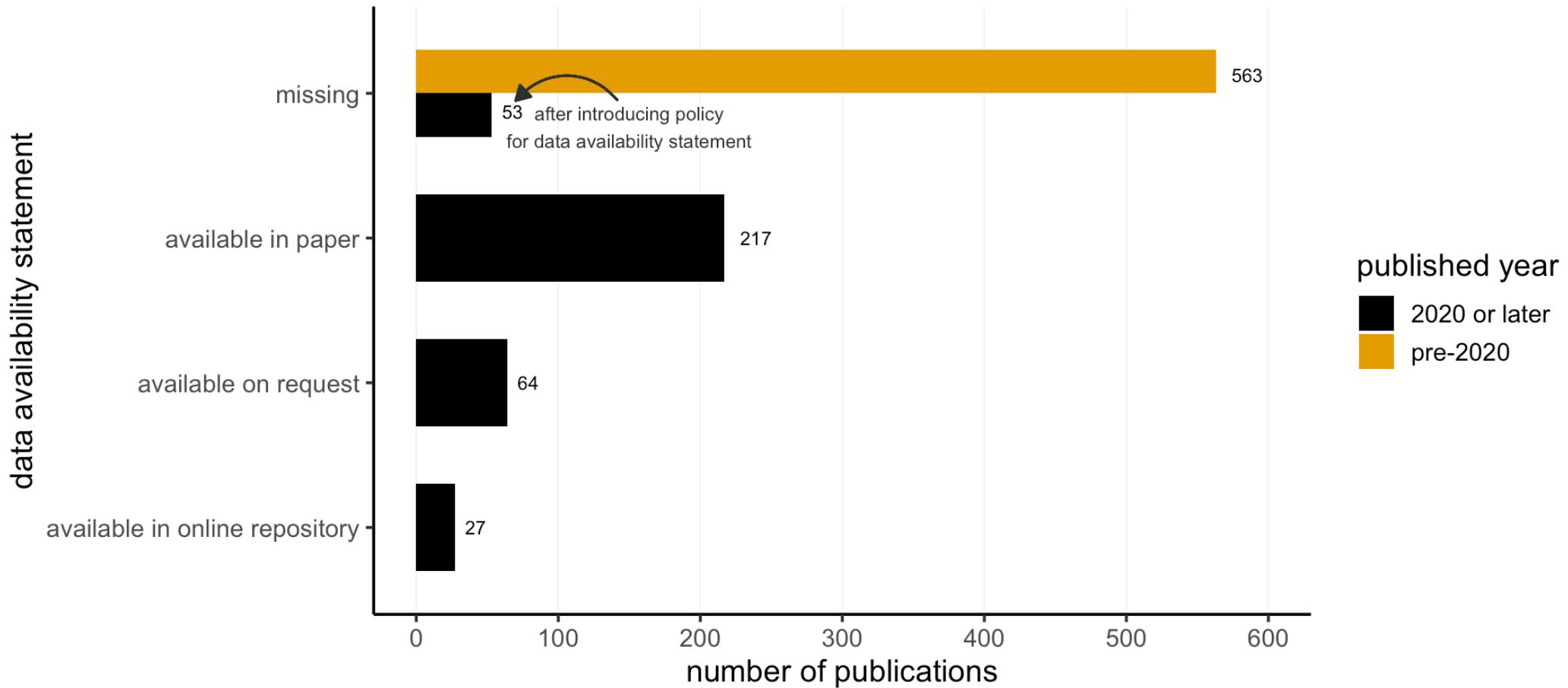
April 4, 2024

# The Opportunity

# Journal articles

## Data Availability Statement

Analysis of 924 articles published in Journal of Water, Sanitation and Hygiene for Development (2011 to 2023)



# Journal articles

**Take-away:** Not a single file is in machine-readable, non-proprietary file type that would qualify for following FAIR principles for data sharing ([Wilkinson et al. 2016](#)).

**Good practice:** CSV (comma-separated values)

## Supplementary Material

Articles published 2020 or later

file type	n <sup>1</sup>	%
missing	202	51.4
docx	149	37.9
xlsx	24	6.1
pdf	13	3.3
pptx	4	1.0
png	1	0.3

<sup>1</sup> One article can have multiple files.

# PDF reports



## Treatment technologies in practice

On-the-ground experiences of faecal sludge  
and wastewater treatment

**SNV**  **UTS** Institute for Sustainable Futures

# PDF reports

Table 2. Influent and effluent qualities of wastewater treated at Duri Kosambi FSTP plant in 2019, as compared to effluent standards

Parameter	Inlet	Outlet
pH	6, 45-7, 88 pH	7, 12-7, 61 pH
Total suspended solids, TSS	340-8933, 33 mg/L	22, 5-84, 29 mg/L
Biochemical oxygen demand, BOD <sub>5</sub>	106, 38-646, 82 mg/L	2, 76-69, 79 mg/L
Chemical oxygen demand, COD	687, 9-2780, 37 mg/L	41, 25-127, 67 mg/L
Total organic matter, KMnO <sub>4</sub>	108, 04-568, 72 mg/L	54, 21-150, 50 mg/L
Ammonia, NH <sub>3</sub> -N	108, 75-239, 25 mg/L	0, 45-29, 81 mg/L
Methylene blue active surfactant, MBAS	0, 74-2, 69 mg/L	0, 13-0, 78 mg/L

# openwashdata community

# openwashdata community

## Vision

An active global community that applies FAIR principles ([Wilkinson et al. 2016](#)) to data generated in the greater water, sanitation, and hygiene sector.

## Mission

Empower WASH professionals to engage with tools and workflows for open data and code.

# openwashdata publishing

# [openwashdata.github.io/fsmglobal/](https://openwashdata.github.io/fsmglobal/)

fsmglobal 0.0.1 Reference Articles ▾

Search for

## fsmglobal

This data was first published as part of a journal article by (Greene et al. 2021) and contained in the supplemental material as a table in a DOCX file. The following summary table was produced from the data and the code is shown further below.

### Demand for faecal sludge emptying services

summarised for 175 countries

	population	percent
<b>mechanized</b>	1,030,317,694	25%
<b>no facility</b>	661,998,822	16%

### Links

[GitHub repository](#)

### Citation

[Citing fsmglobal](#)

### Developers

So who does the work?

Nicola Greene

Author 

Sarah Hennessy

Author 

Tate W. Rogers

Author 

Jocelyn Tsai

# openwashdata academy

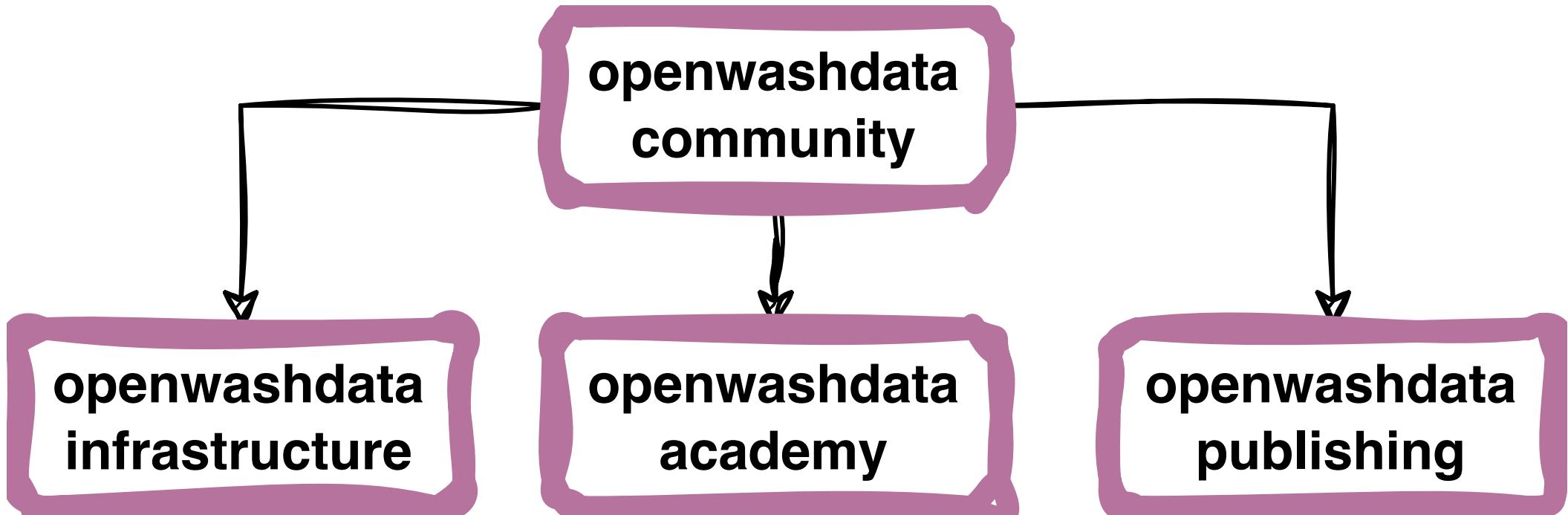
# data science for openwashdata 001

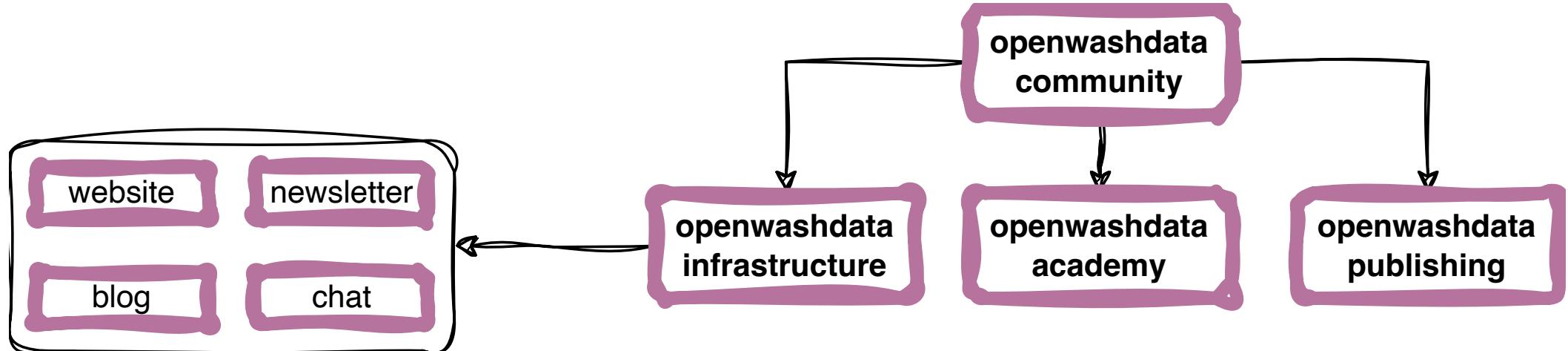
- free, live, online, 10-week programme
- 200 registrations
- 100 show-ups
- 40 graduates
- next iteration: September/October 2024
- sign-up: <https://forms.gle/MP5rNYZagBdfG2ZRA>

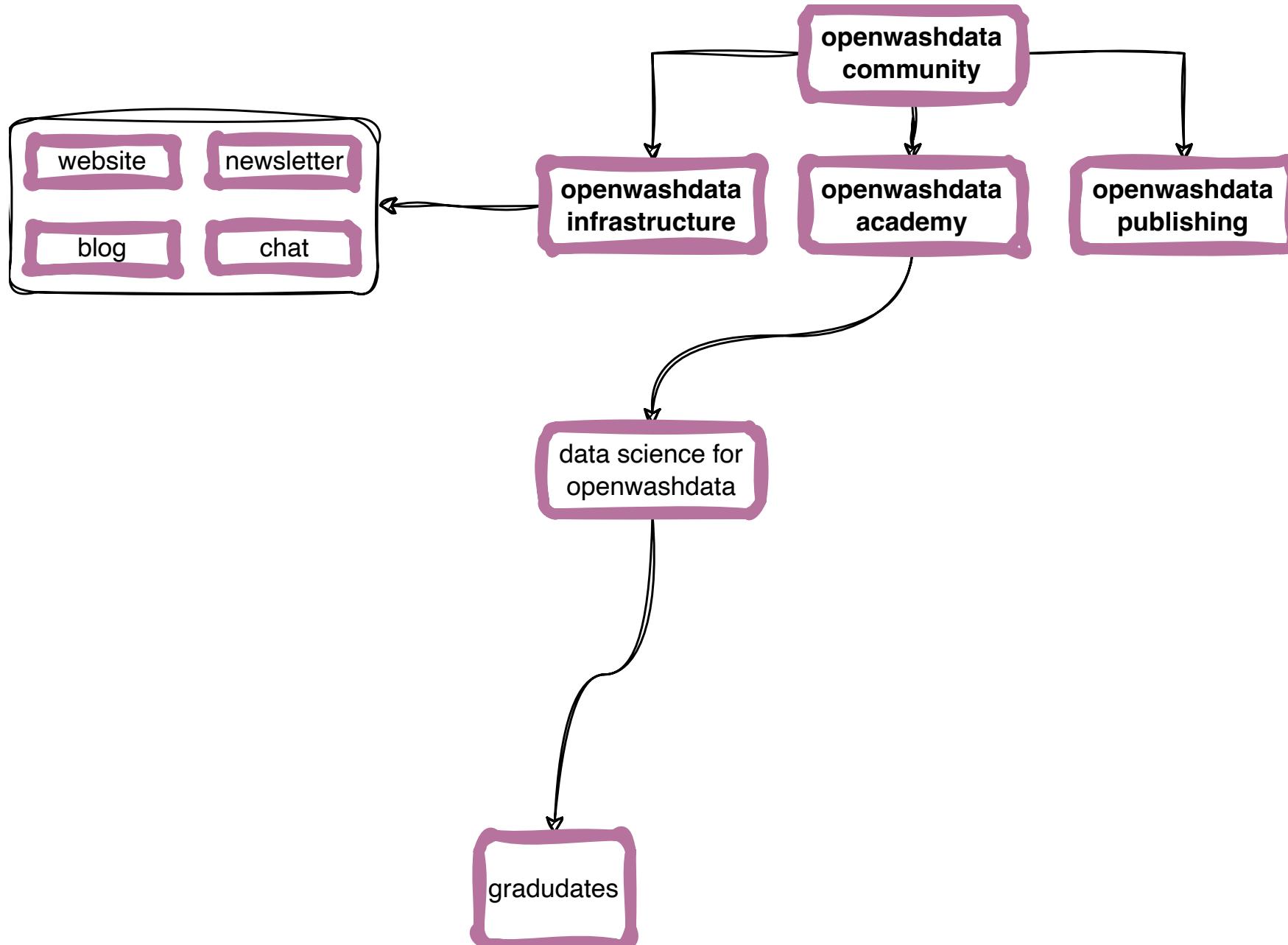
[ds4owd-001.github.io/website/](https://ds4owd-001.github.io/website/)

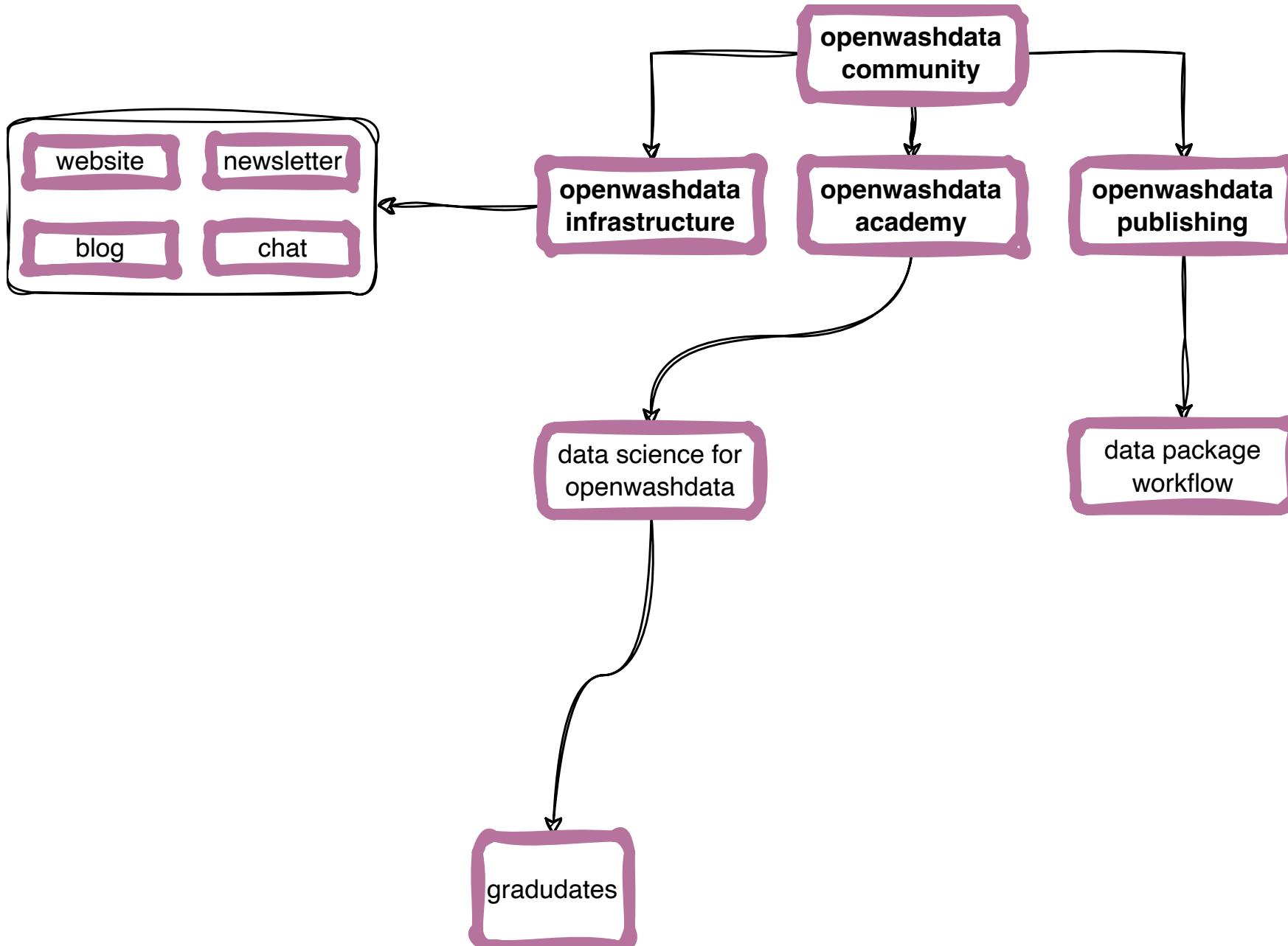
# what's next

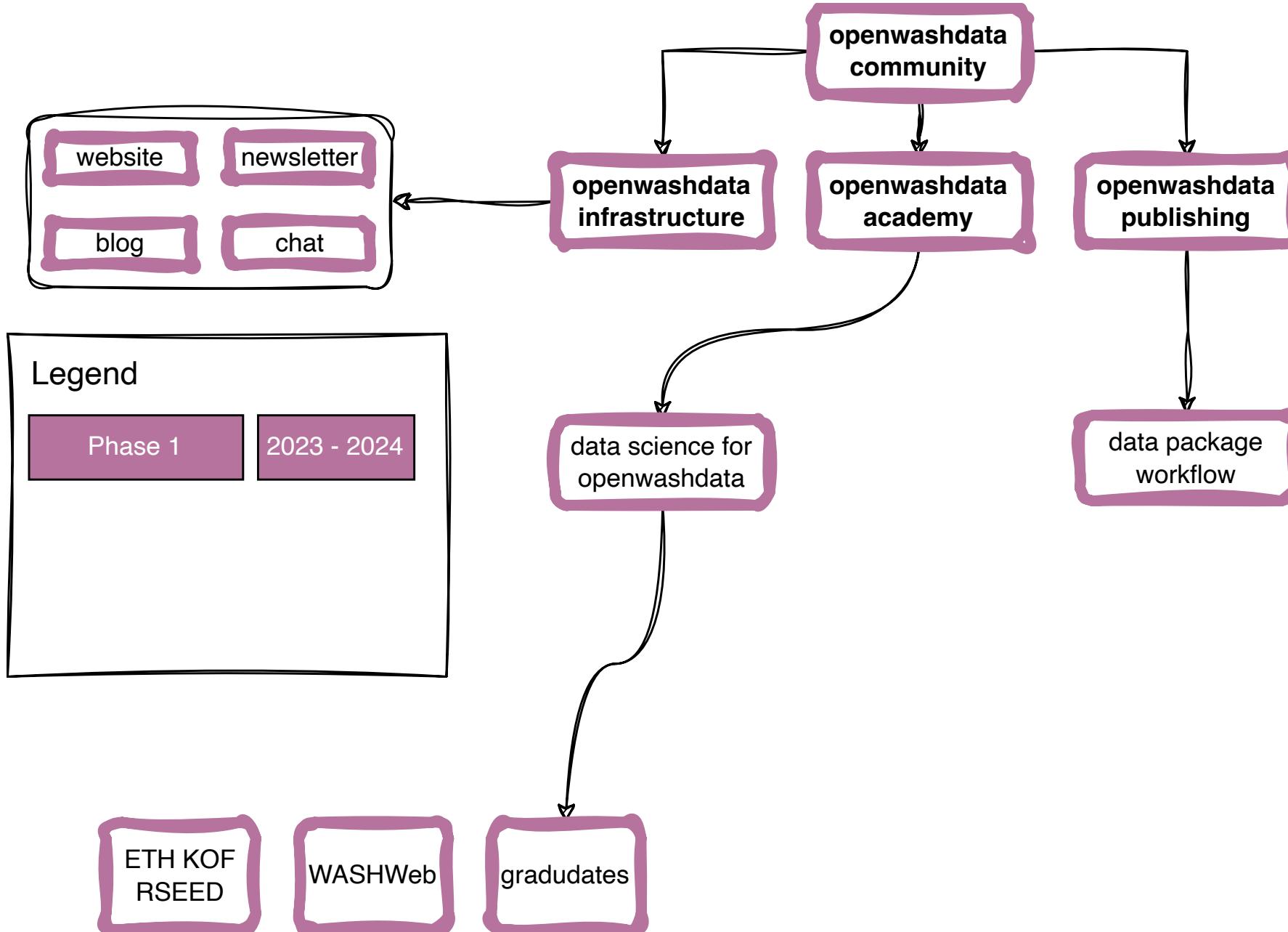
 [openwashdata.org/pages/gallery/slides/](http://openwashdata.org/pages/gallery/slides/)

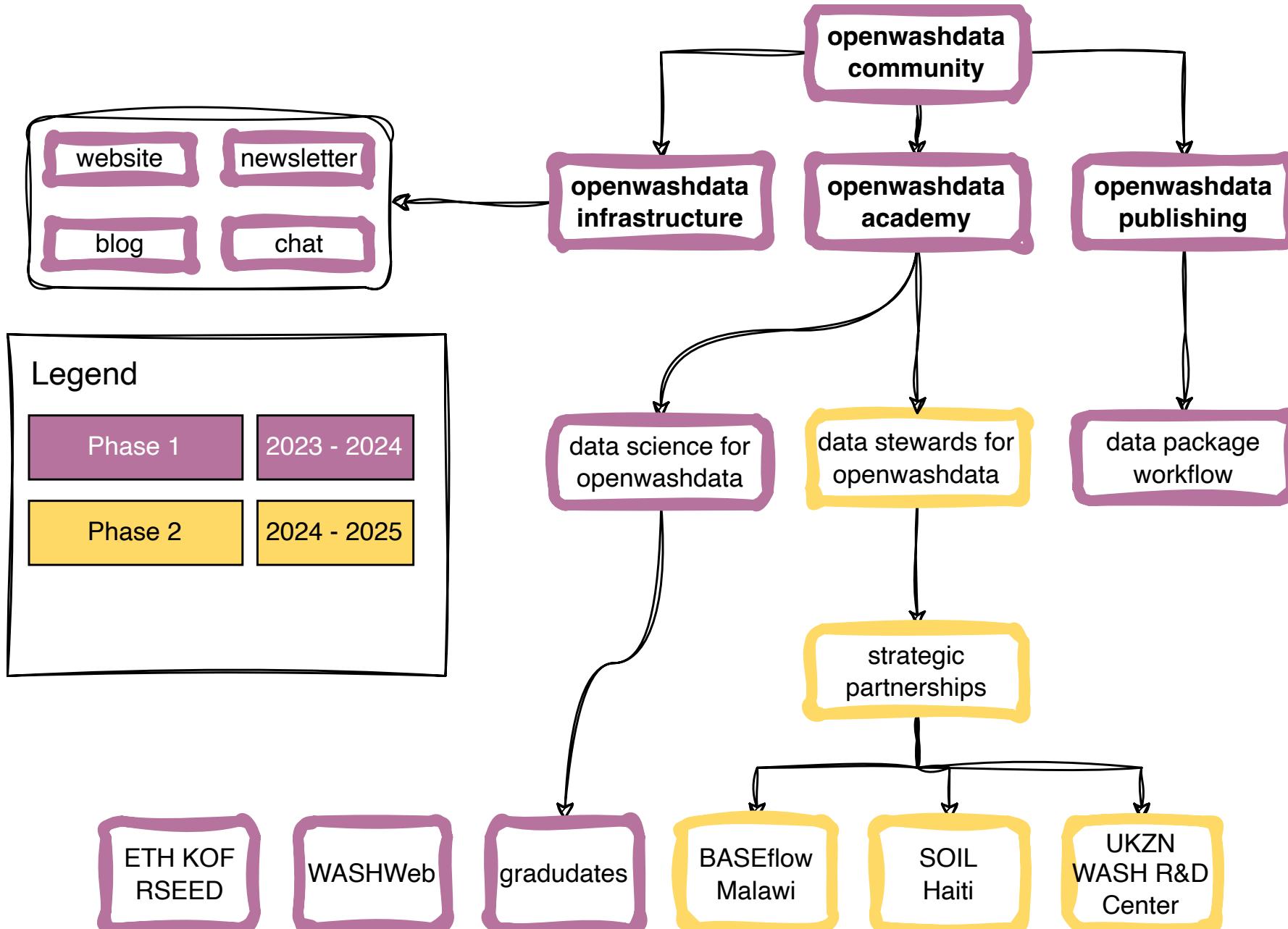


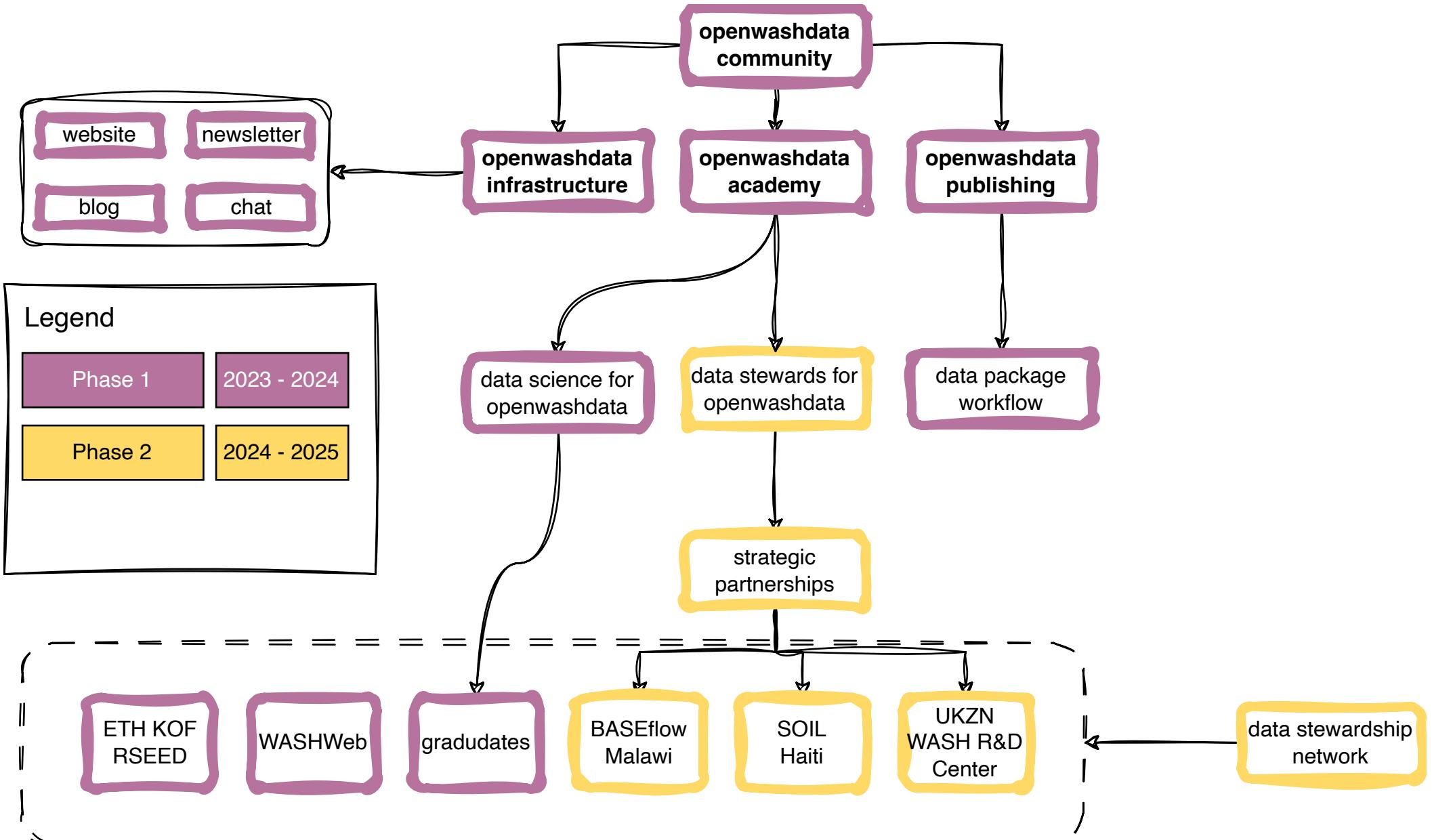


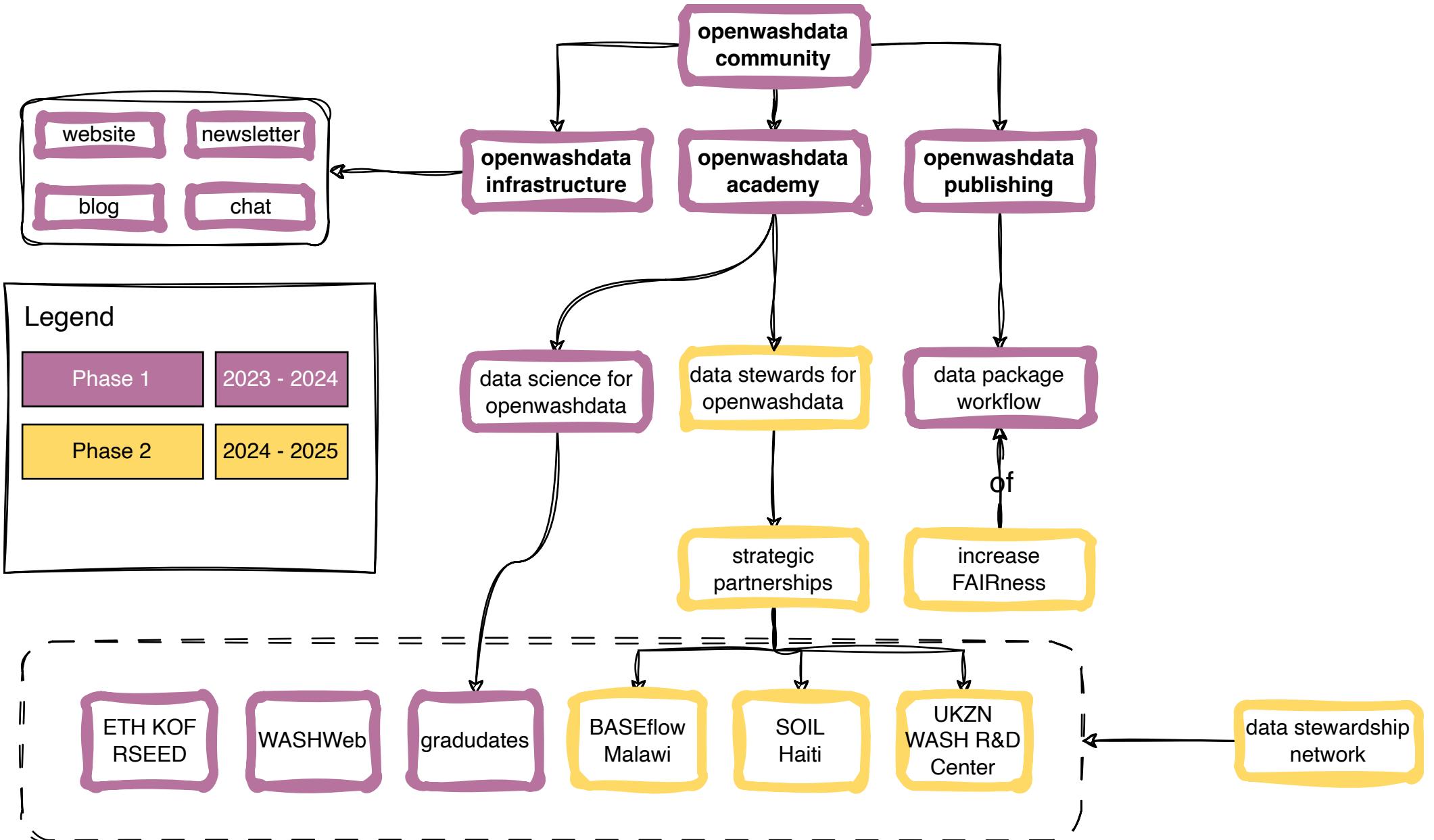


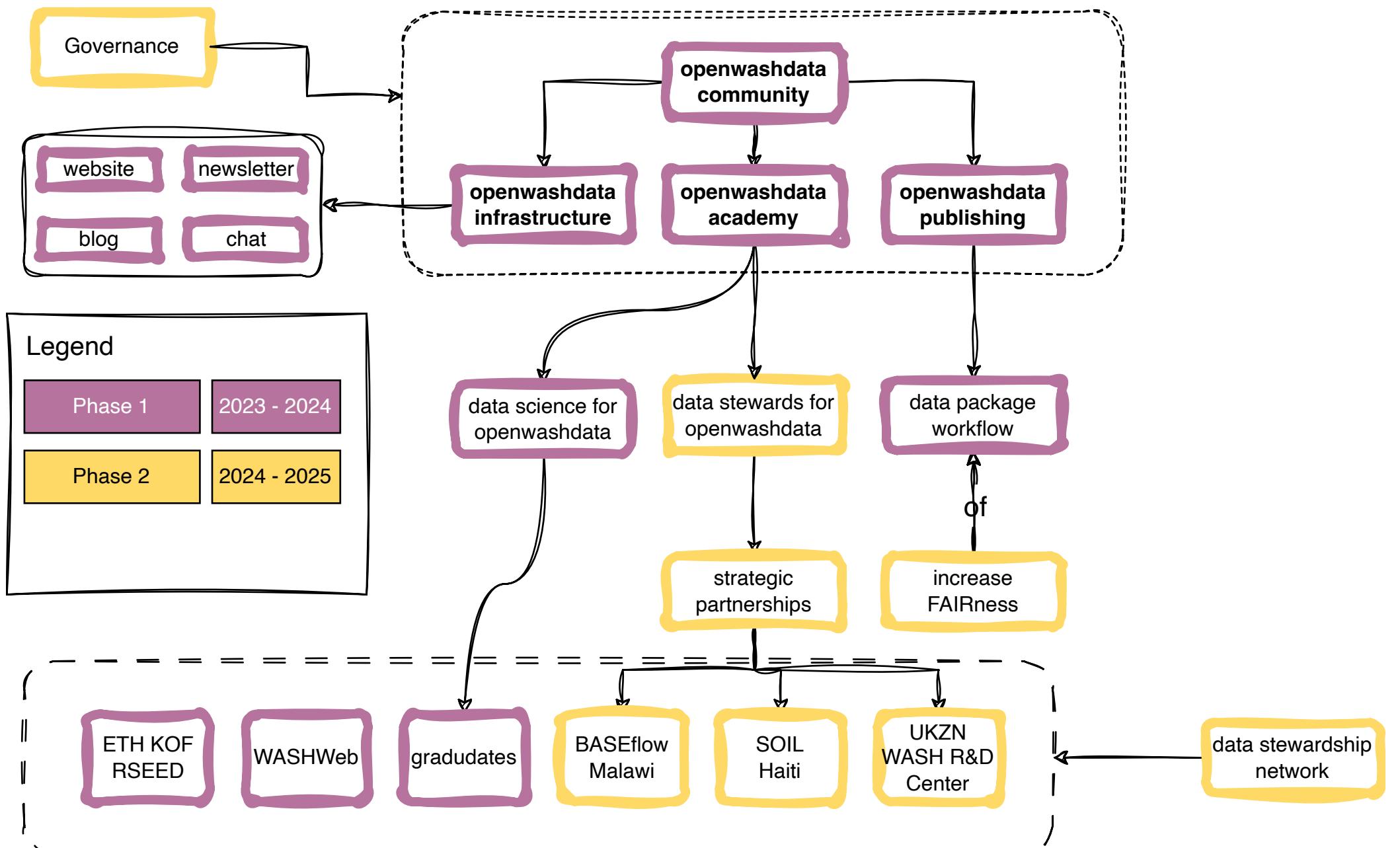


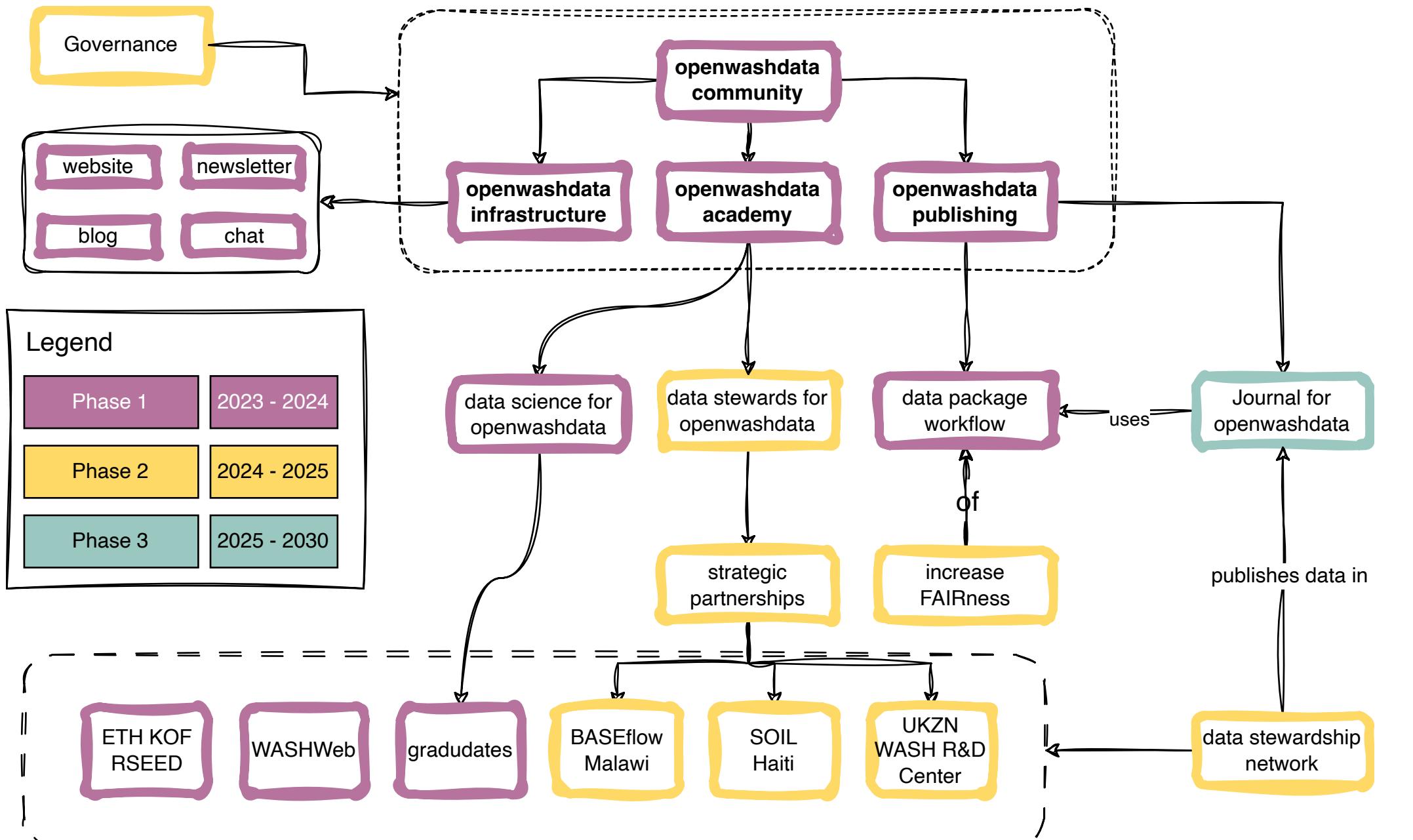












# News

# Sign up to our newsletter



<https://buttondown.email/openwashdata>

Your first name\*

Your location

Your email (you@example.com)

Subscribe

Thanks 

This project was supported by the [Open Research Data Program  
of the ETH Board.](#)

The slides were created via revealjs and Quarto:

<https://quarto.org/docs/presentations/revealjs/>

You can [view source code of slides on GitHub](#)

Or you can [download slides in PDF format](#)

This material is licensed under [Creative Commons Attribution  
Share Alike 4.0 International.](#)

# References

- Greene, Nicola, Sarah Hennessy, Tate W. Rogers, Jocelyn Tsai, Francis L. de los Reyes III, and Lars Schöbitz. 2023. “Fsmglobal. Global Faecal Sludge Emptying Services Demand.” <https://doi.org/10.5281/zenodo.8208293>.
- Soeters, S, P Mukheibir, and J Willetts. 2021. “Treatment Technologies in Practice: On-the-Ground Experiences of Faecal Sludge and Wastewater Treatment.”
- Wilkinson, Mark D., Michel Dumontier, IJsbrand Jan Aalbersberg, Gabrielle Appleton, Myles Axton, Arie Baak, Niklas Blomberg, et al. 2016. “The FAIR Guiding Principles for Scientific Data Management and Stewardship.” *Scientific Data* 3 (1).  
<https://doi.org/10.1038/sdata.2016.18>.