

New Data Analysis in Imaging (DAIM) RMS Section

Martin Jones

A Survey on Bioimage Analysis Needs, 2015

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Abstract

bioimage analysis | NEUBIAS | imaging | image processing | image analysis

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Abstract

To quantitatively assess the need for image analysis in biological research, we conducted a bioimaging community-wide survey in 2015. This report summarizes the responses of 1905 researchers to five questions asking how image analysis is important in their research activity, and which type of support is in demand for successfully accomplishing their analysis tasks.

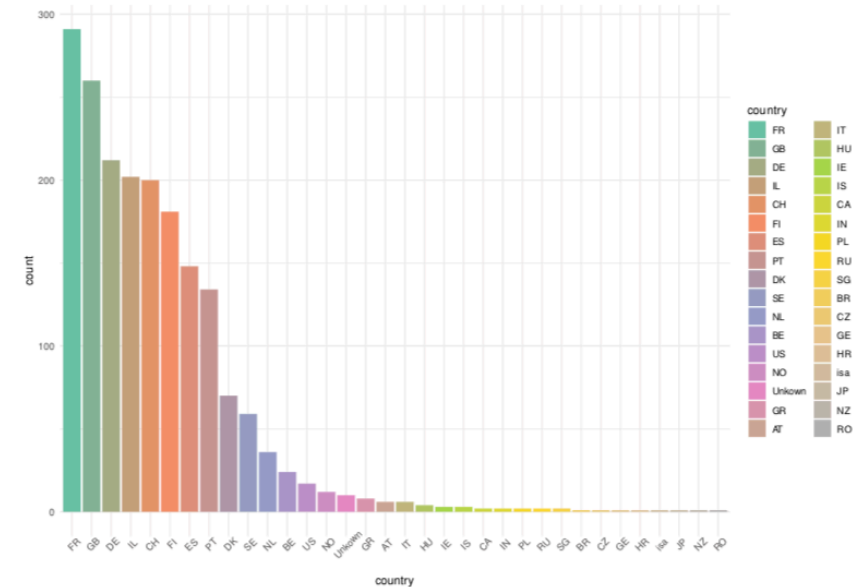
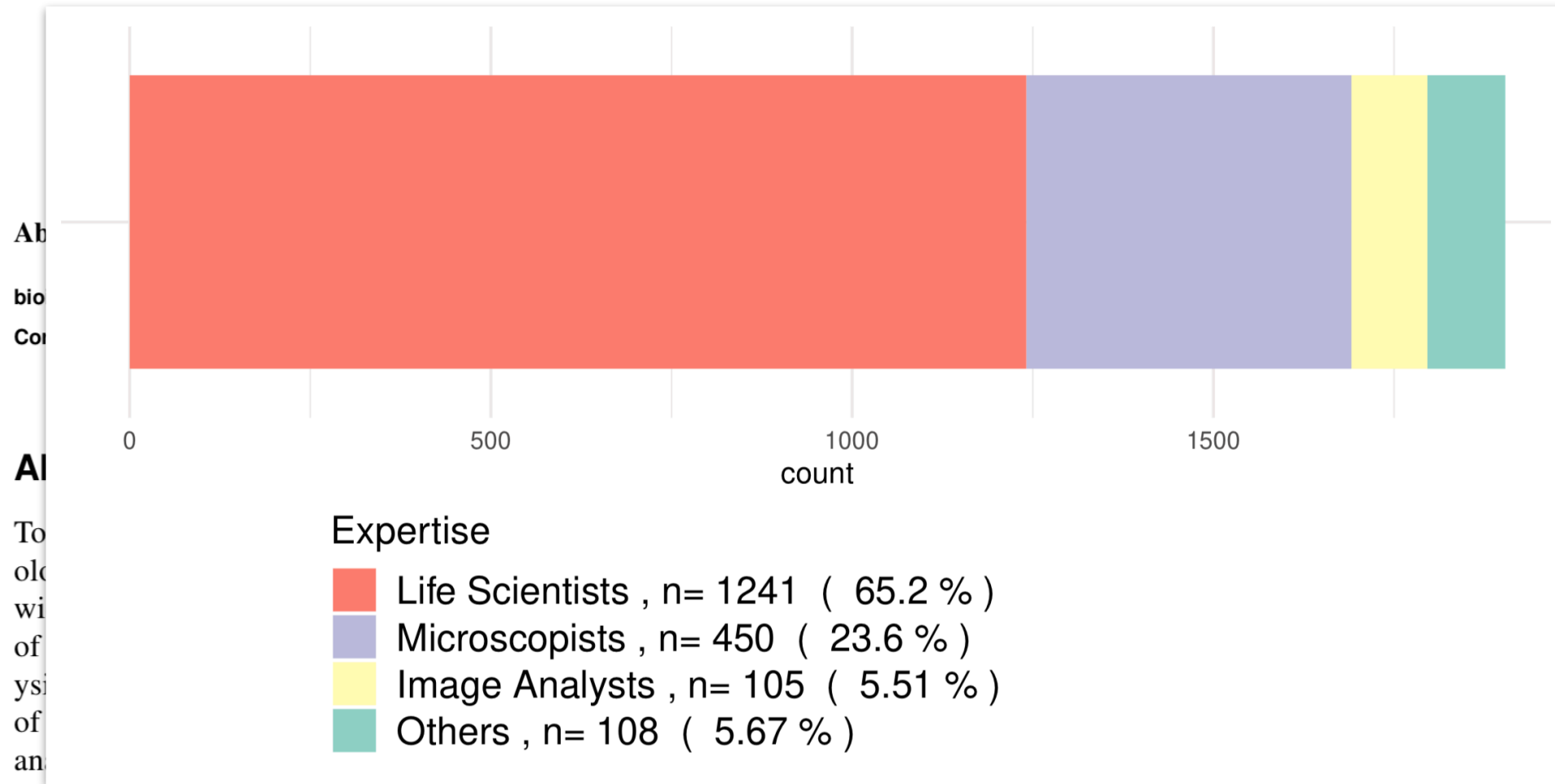
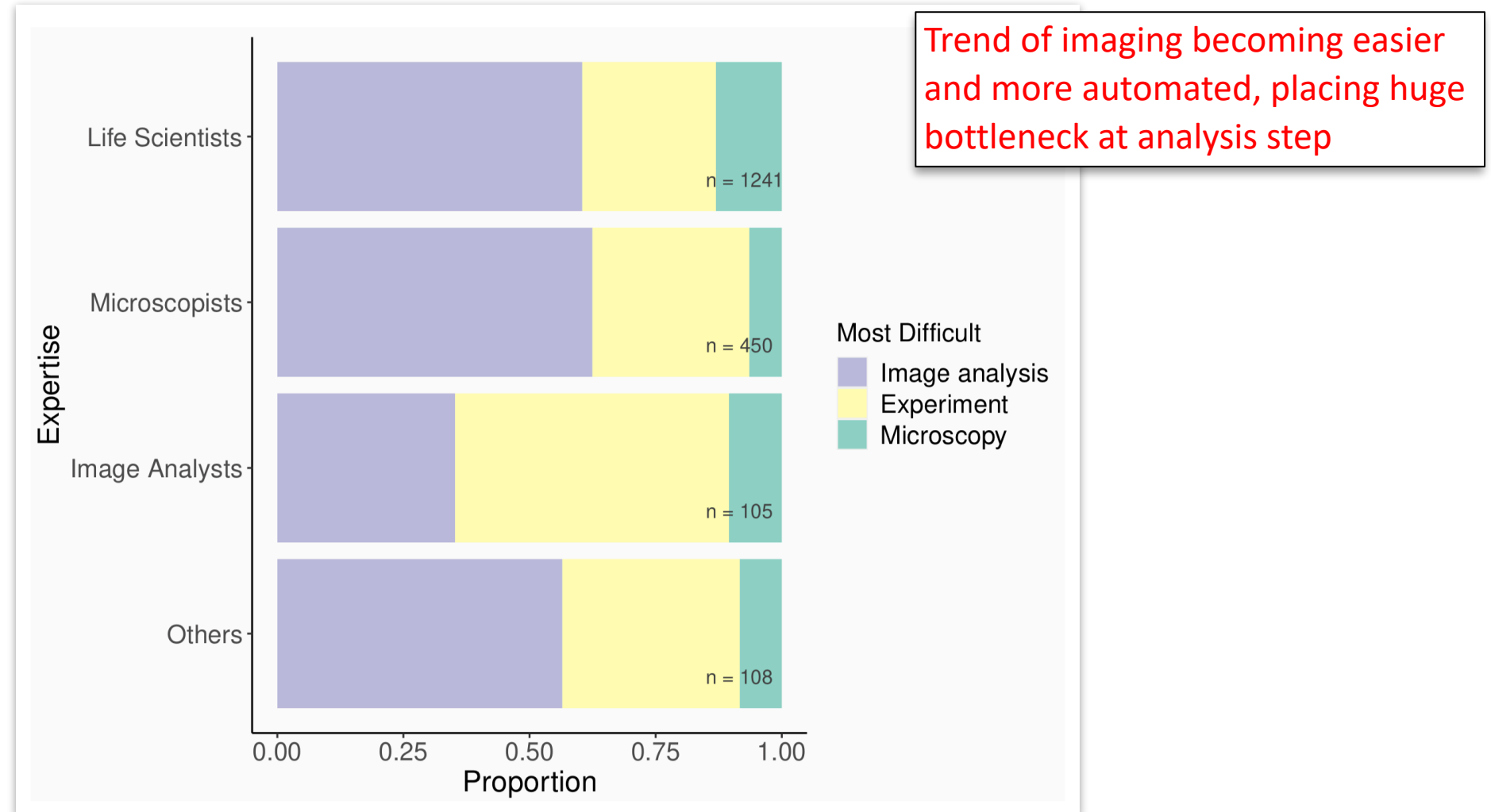


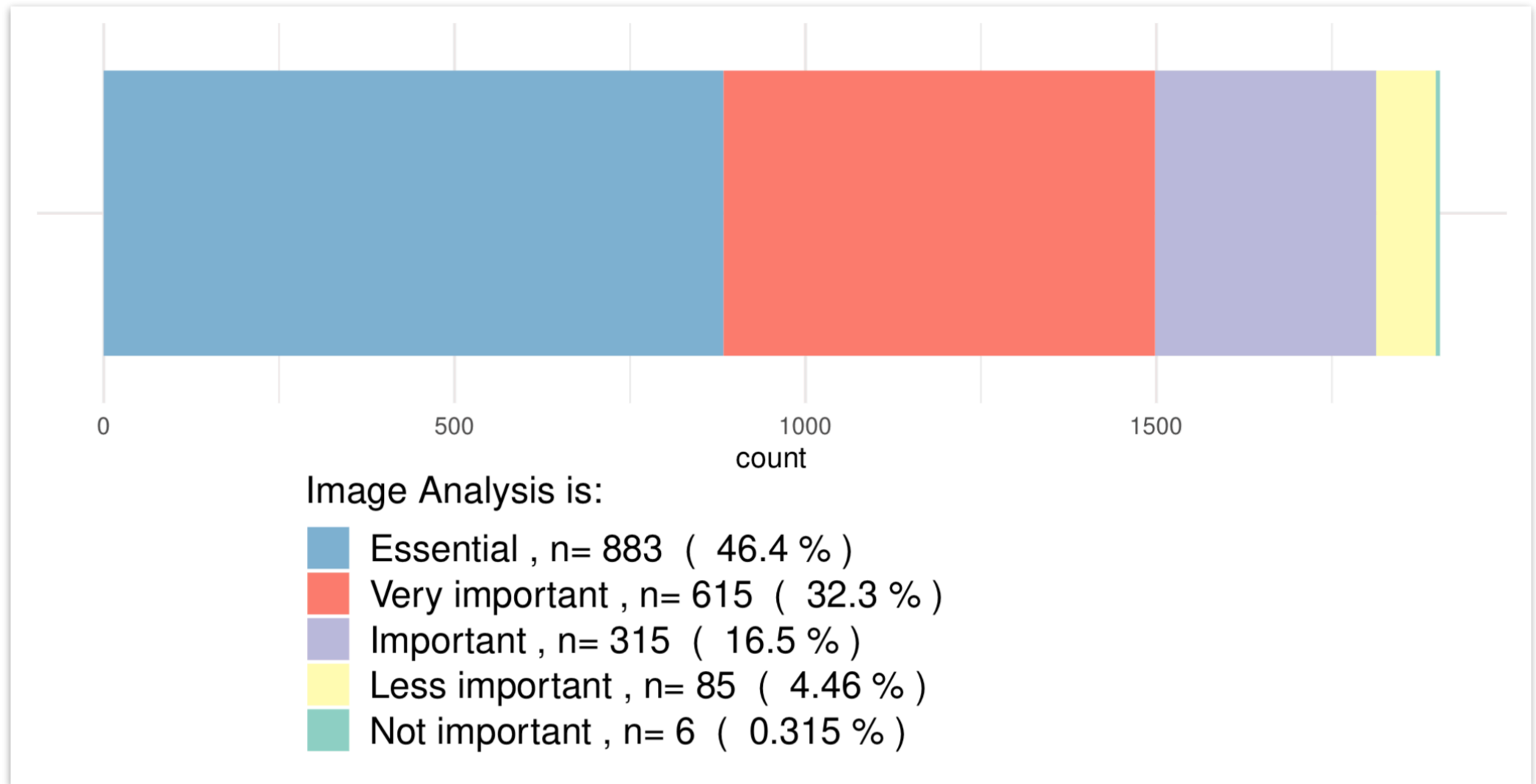
Fig. 1. Which country is your institute located?

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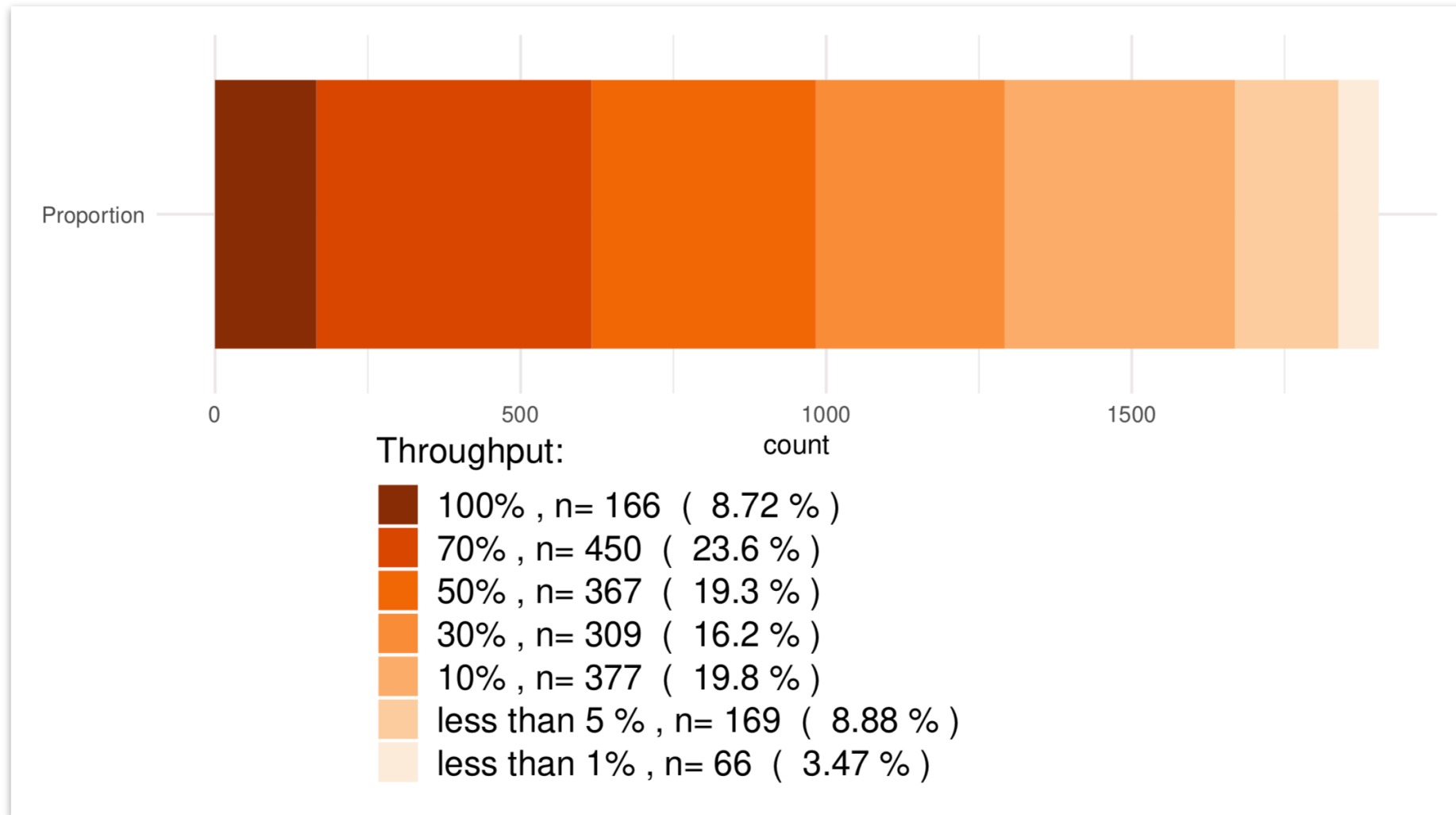


Which part of imaging is most difficult?

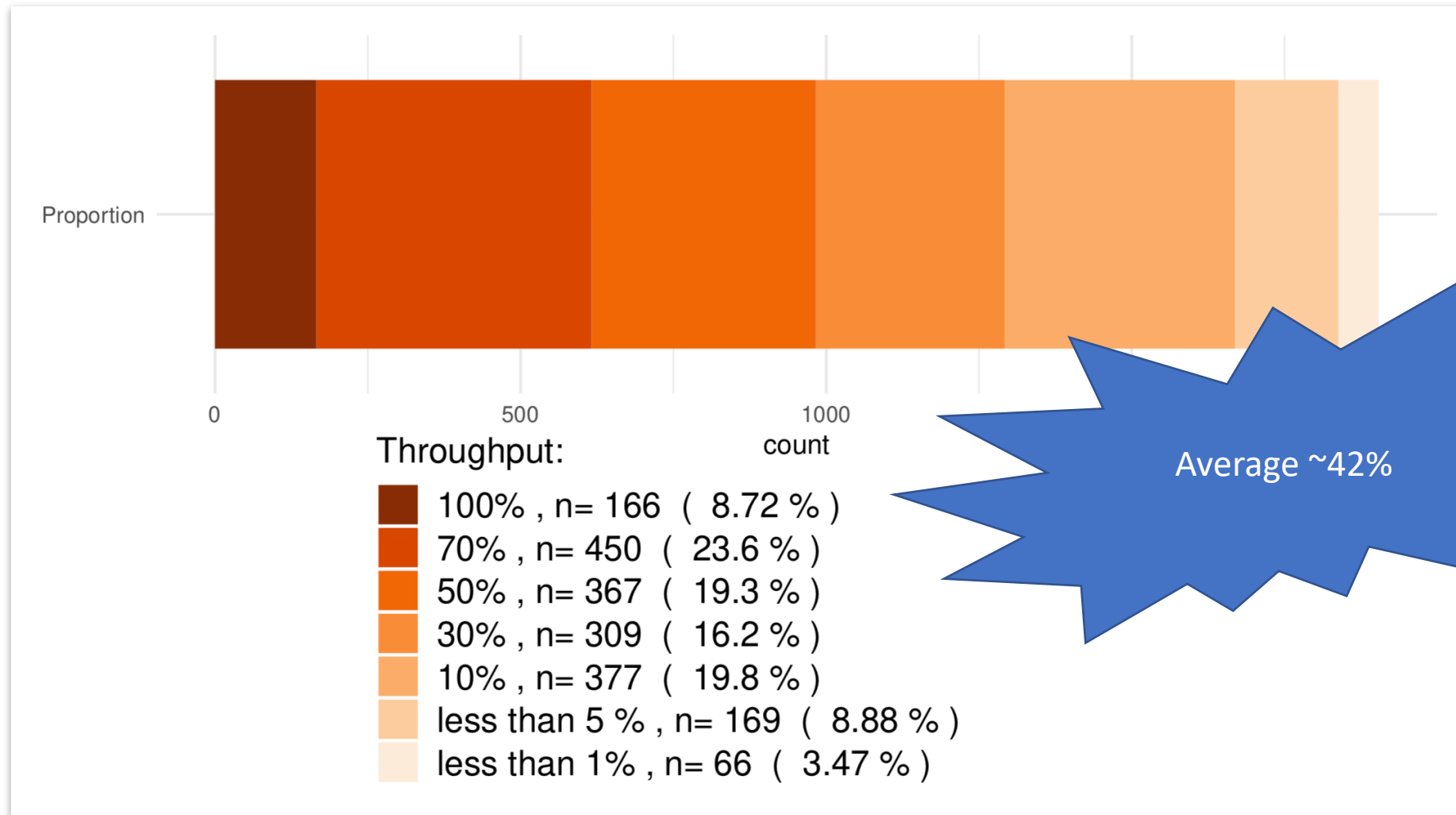




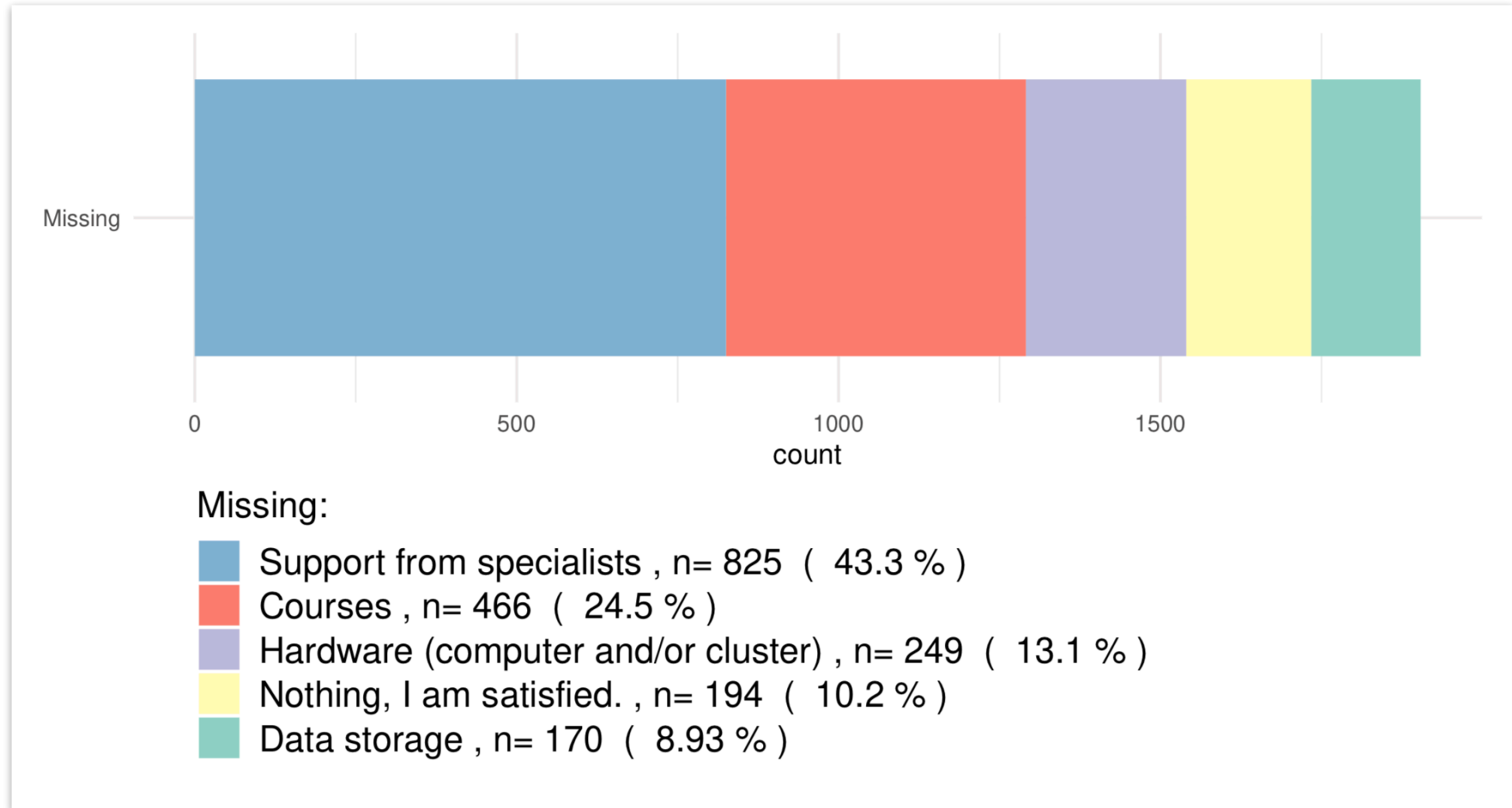
What proportion of images are analyzed?



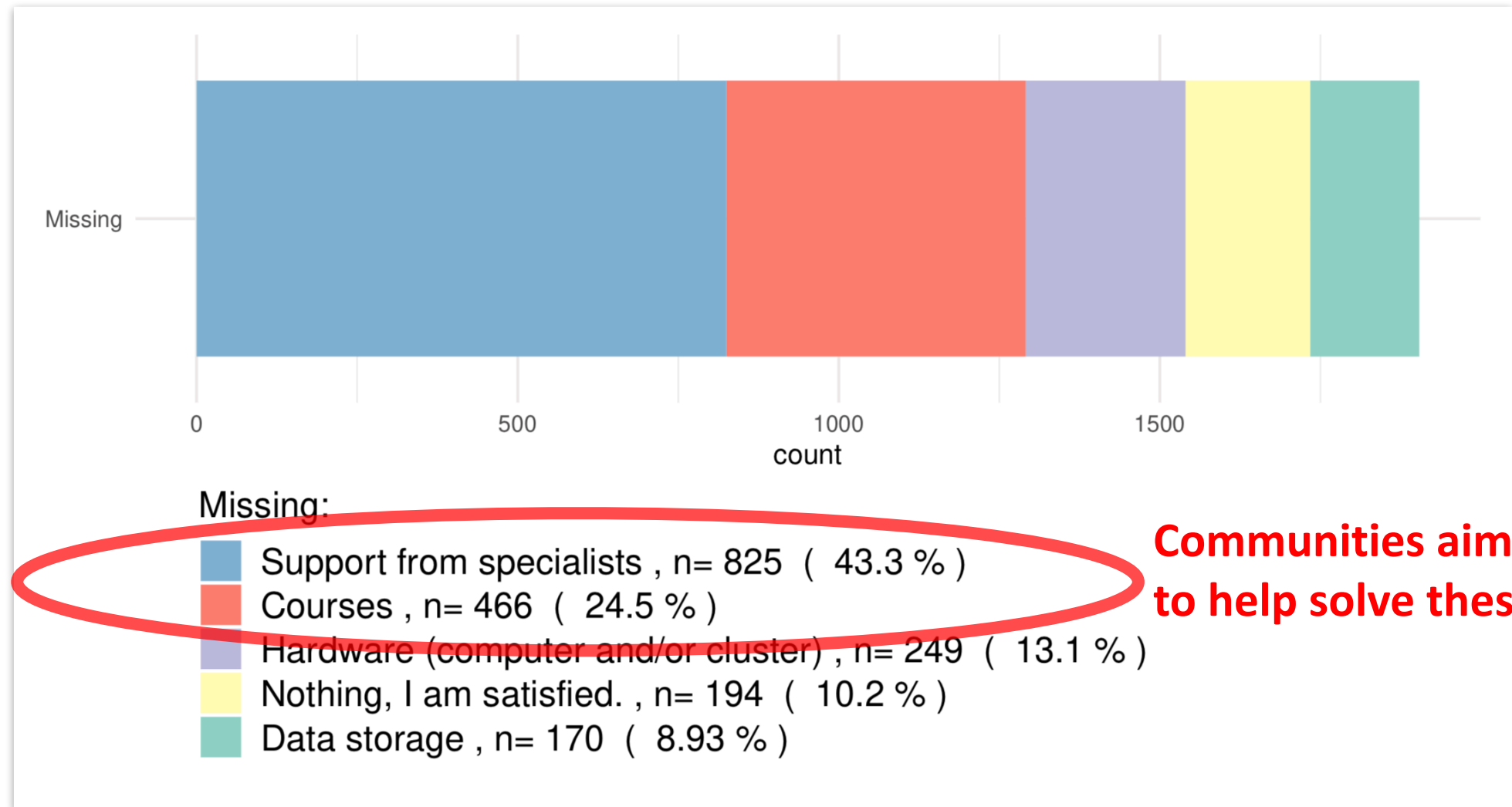
What proportion of images are analyzed?



Which resources are missing?

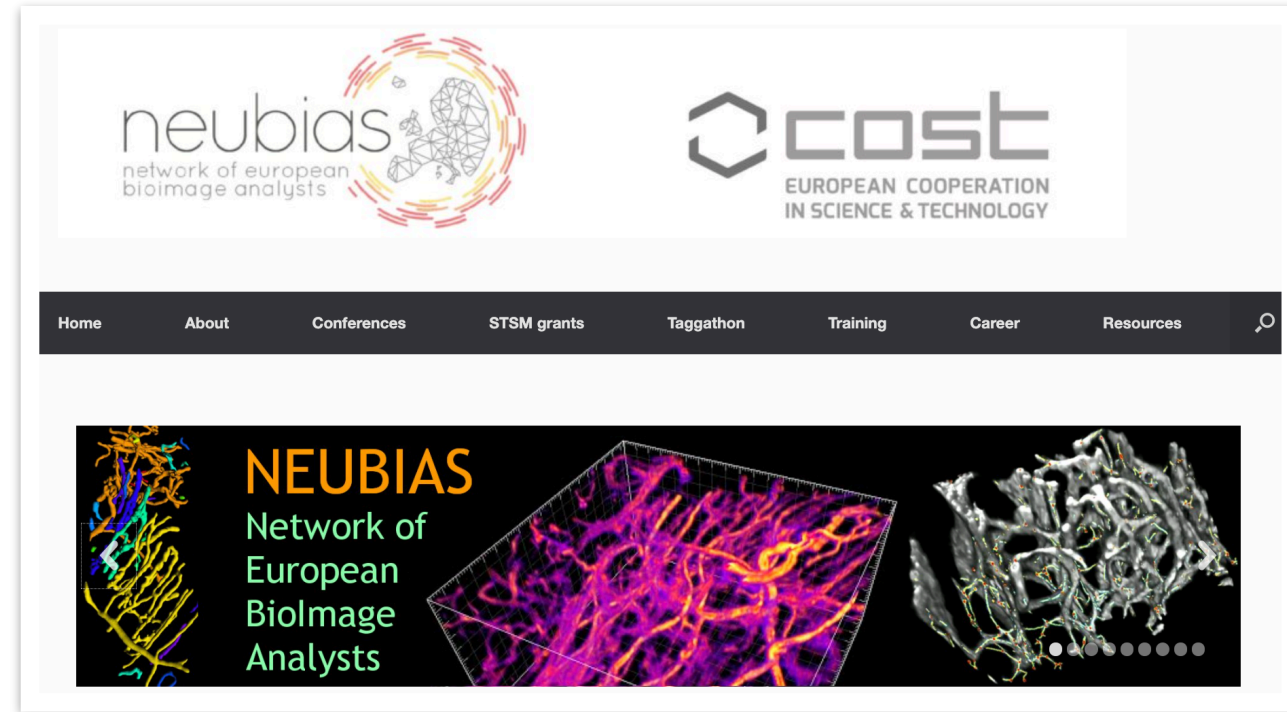


Which resources are missing?



Established community: NEUBIAS

- Network of European Bioimage Analysts
- 5 year COST Action (2016-2020)
 - Symposia
 - Training Schools
 - Community resource building (e.g. biii.eu, open-access e-books)
- Made exceptional progress in establishing a vibrant international community
- Ongoing NEUBIAS Academy
www.youtube.com/c/NEUBIAS/videos



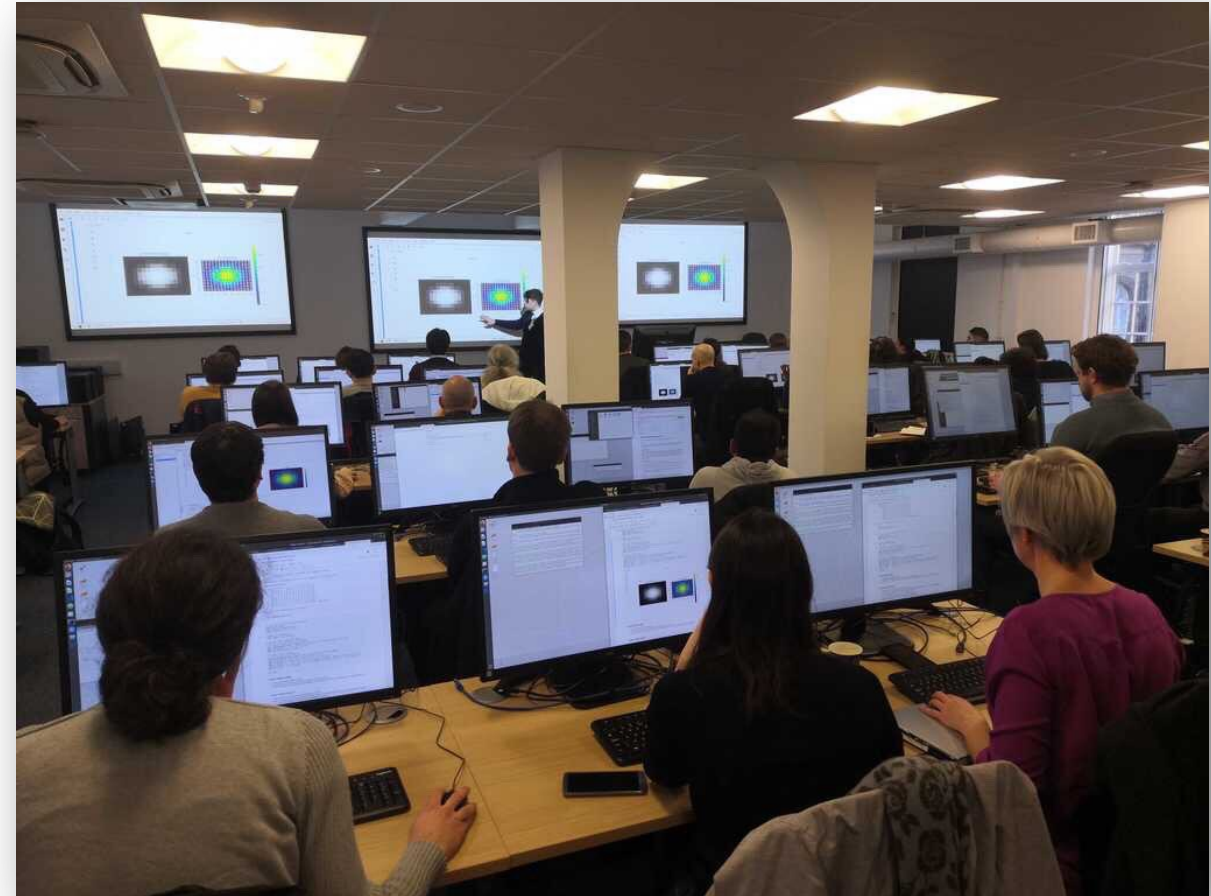
<https://eubias.org/NEUBIAS/>

RMS Image Analysis Focused Interest Group



- Started by Dominic Waithe in 2018 to follow on from NEUBIAS
- Training and “train-the-trainer” courses
- 2 Questionnaires regarding research climate & careers

<https://f1000research.com/articles/10-276/v1>



Parallels to Research Software Engineering

- Research culture incentives not always aligned with writing good code
 - “Publish or perish” leads to lots of unsustainable software
- Scientific coding community was large but scattered
- Community established to advocate for the role of RSE and share best-practice and technical knowhow – <https://society-rse.org/>
- Community visibility has led to increased understanding of the role and even dedicated funding from major funders

Data Analysis in Imaging (DAIM) section



- The IAFIG demonstrated a need for explicit representation of image/data analysis, both for research and careers
- Royal Microscopical Society team has helped us transition from Focused Interest Group to full Section (thanks especially to Amanda, Allison and Maddy!)
- Committee has been formed, first committee meeting next week!
- To help cover range of fields, modalities, career-stage etc, we're aiming to help form domain-specific satellite networks that can communicate across networks via the DAIM section

How to get involved?

DAIM:

- Contact me: martin.jones@crick.ac.uk or message via conference app

General image/data analysis:

- The go-to place for asking questions and getting advice is forum.image.sc
- Take a look at biii.eu, if your favourite tools aren't there, then add them!

