

# Machine Learning in Weather & Climate MOOC

**Final report**



INTERNATIONAL FOUNDATION  
BIG DATA AND ARTIFICIAL INTELLIGENCE  
FOR HUMAN DEVELOPMENT

# Agenda

1

The course in a nutshell

2

Data collection methodology

3

Results: Key figures

4

Demographics

5

Course completion

6

Webinar data

7

Forum data

8

Satisfaction survey

# The course in a nutshell



Live run from 09/01/2023 to 30/04/2023



Targeted both beginners and more experienced participants



Tier 1: Machine Learning in  
weather & climate

6 Modules  
4 Webinars  
up to 13h30 of content



Tier 2: Concepts of Machine  
Learning

5 Modules  
5 Webinars  
up to 12h of content



Tier 3: Practical Machine  
Learning applications in  
weather and climate

6 Modules  
6 Webinars  
up to 14h30 of content

# The course in a nutshell

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## **Wide range of activities:**

- E-learning units
- Quizzes
- Exercises (namely Jupyter notebooks)
- Podcasts
- Videos
- Live webinars
- Additional materials (articles, in-depth videos, infographics, etc.)



## **Forum moderated by an expert from the field**

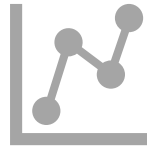
# Data collection methodology

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## **Pre-course survey**

Demographics (gender, country, education, activity sector, etc)



## **Post-course survey**

Evaluation of the participant's satisfaction rate and gather qualitative feedback



## **Moodle**

Completion report and logs



## **Clickmeeting**

Satisfaction and attendance reports from the platform used for the live webinars

# Results: key figures

**9026**

Participants

**6021**

Certificates  
delivered

**159**

Countries

**40**

Hours of content

**4,3/5**

overall  
satisfaction rate

**60**

Experts

**47**

Videos

**37**

E-learning  
objects

**15**

Webinars

**1147**

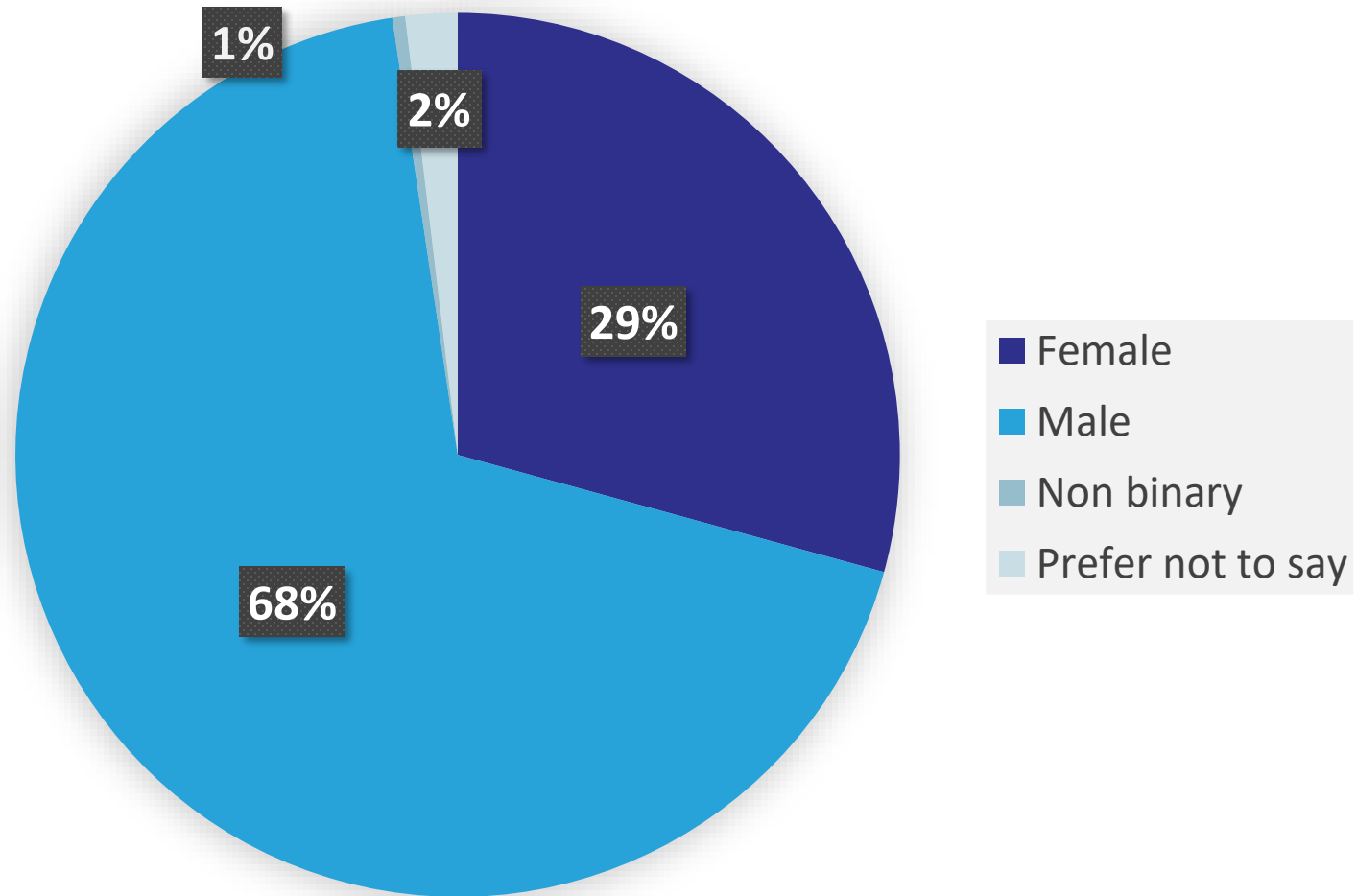
Participants in  
the 1<sup>st</sup> Webinar

**1235**

Forum messages

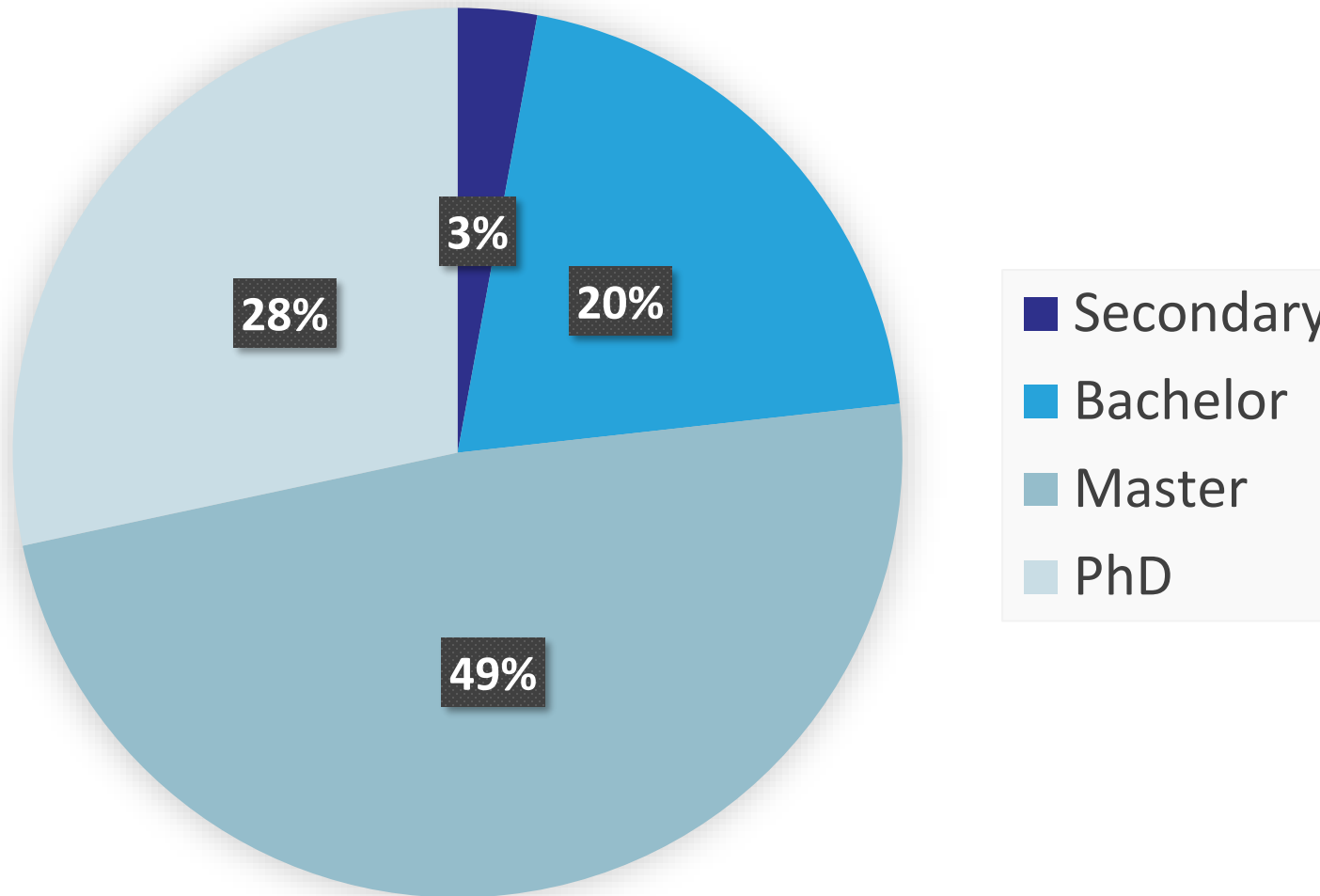
# Demographics

## Gender repartition



# Demographics

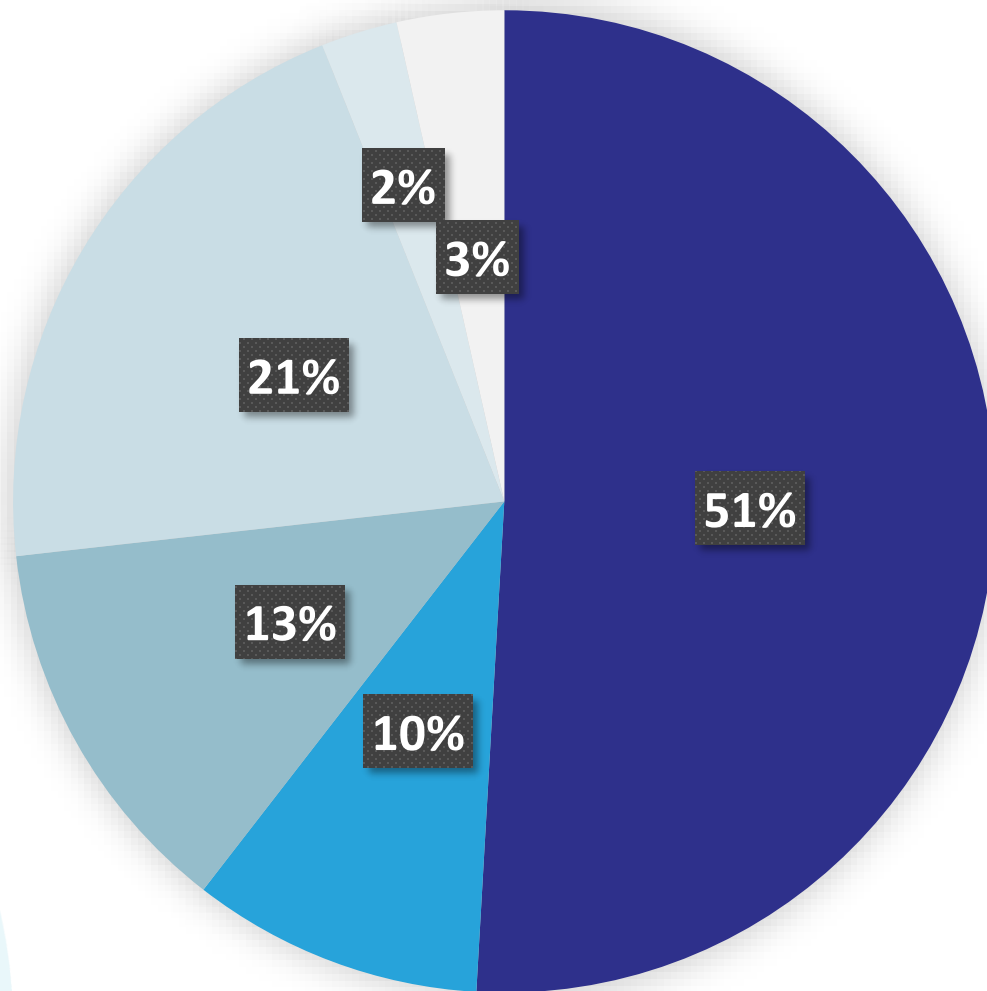
## Highest completed education





# Demographics

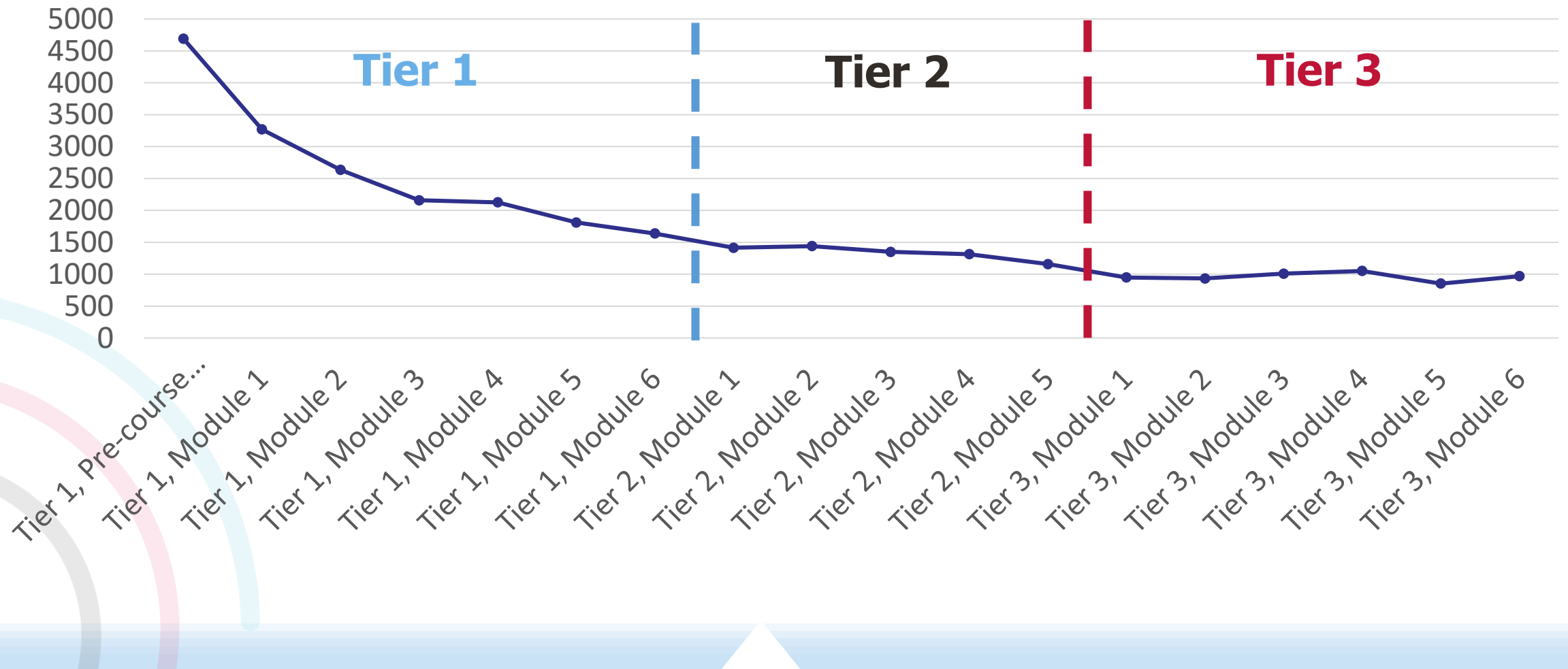
## Activity sector



- Academic/Research
- National Meteorological and Hydrological Service (NMHS)
- Public sector/Governmental
- Private sector/Commercial
- Non-governmental (NGO)

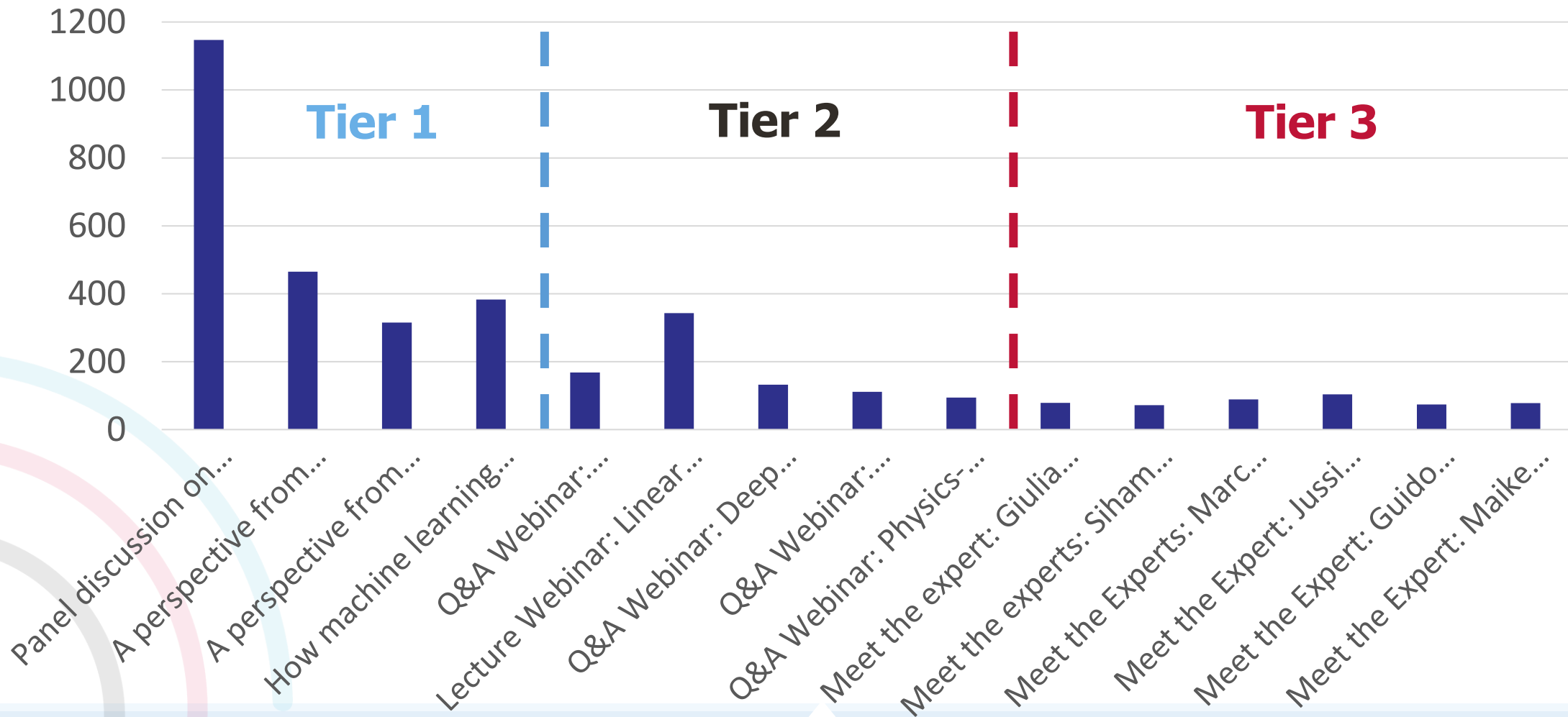
# Course completion

## Completion by module



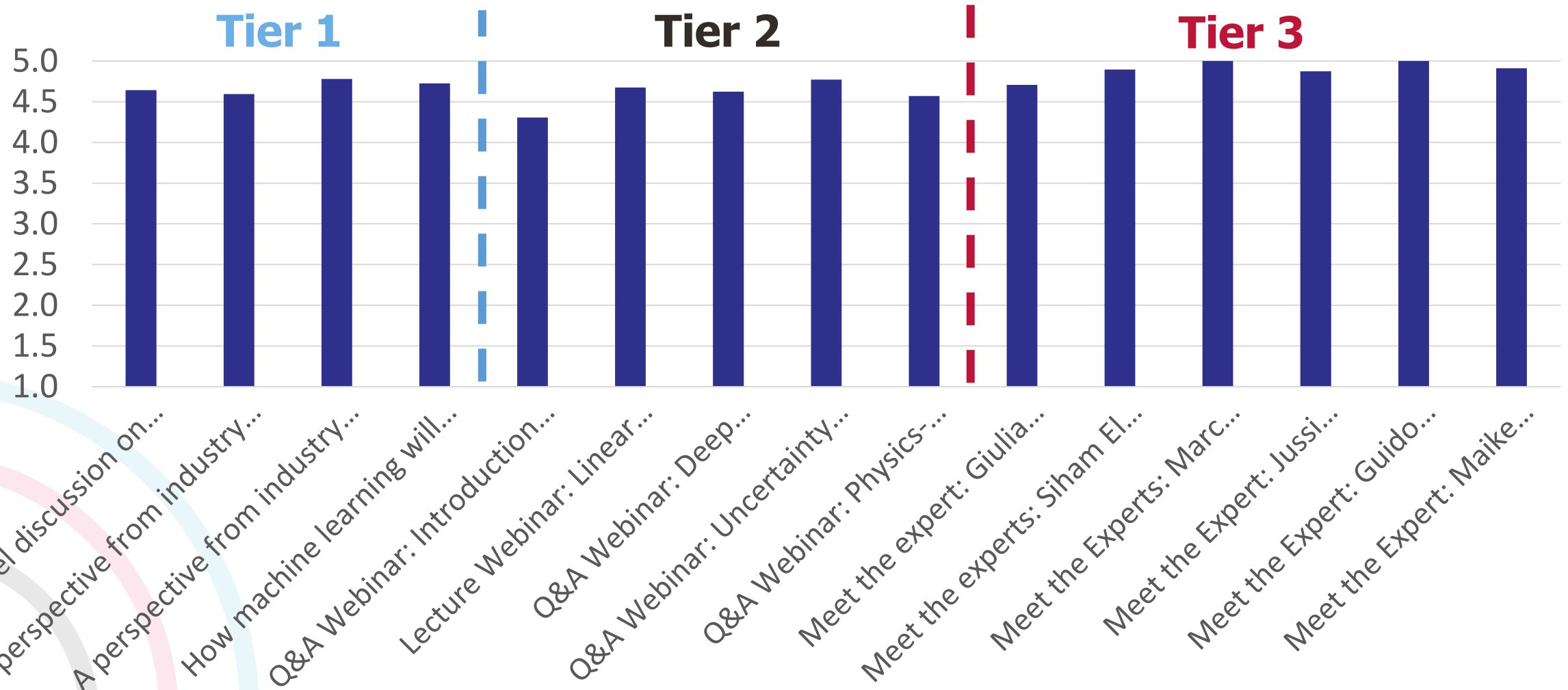
# Webinar data

## Attendance by event



# Webinar data

## Satisfaction ratings



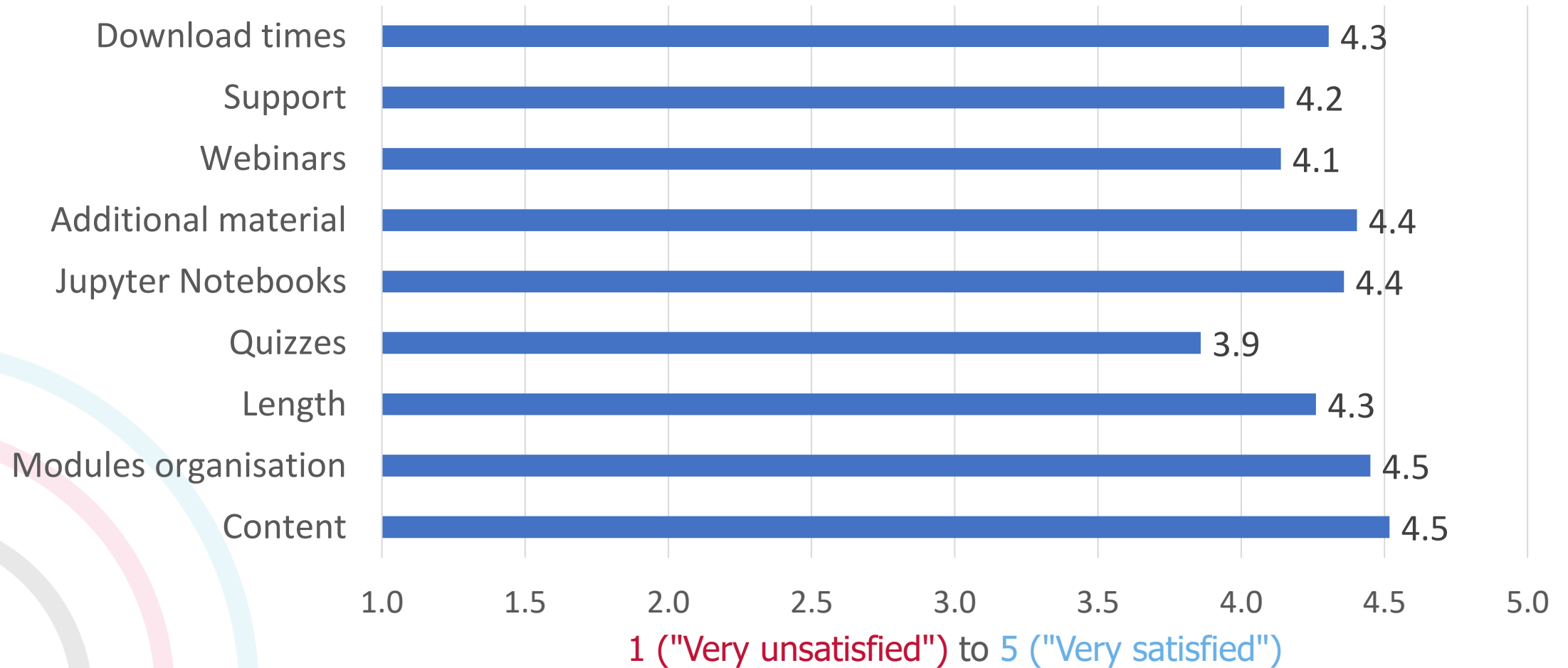
# Forum data

Key figures:

- 1235 messages in 294 discussions.
- 71% of active participants **viewed** the forum.  
*but*
- Only 7% of active participants **posted** on the forum.

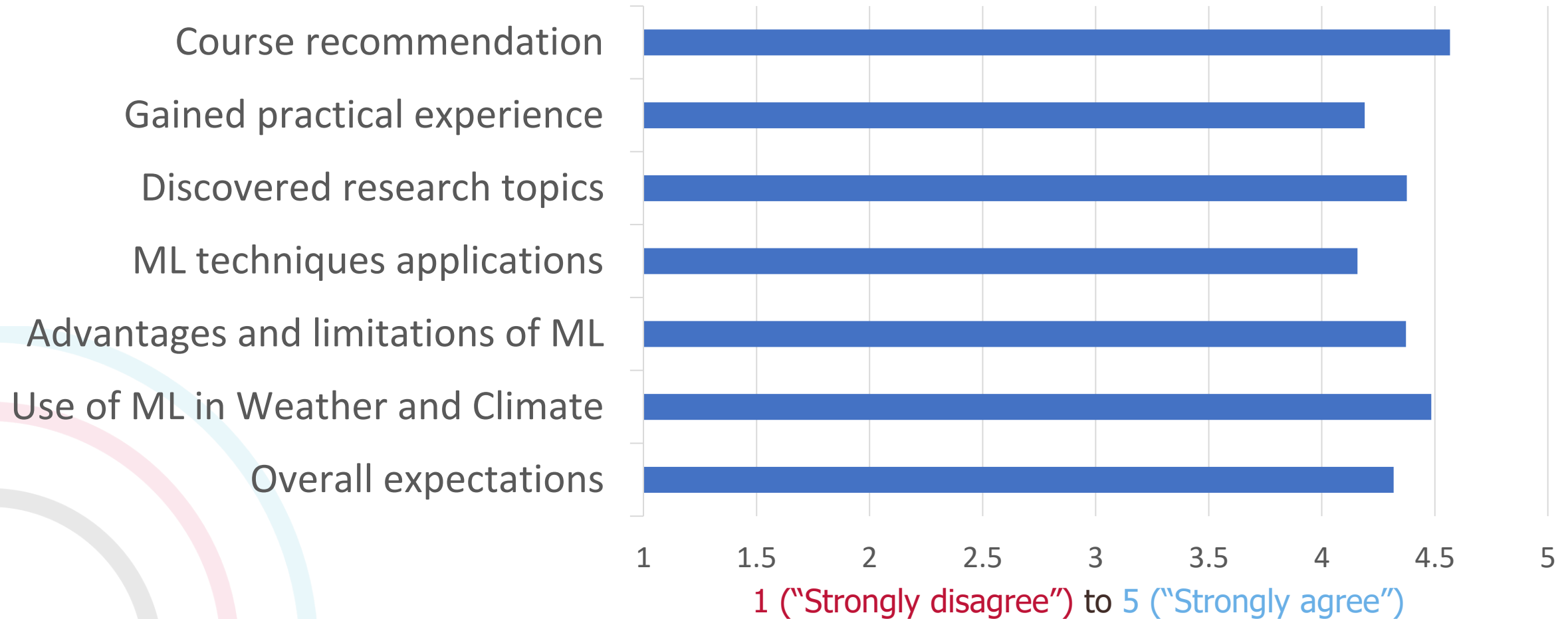
# Satisfaction survey

## Overall satisfaction



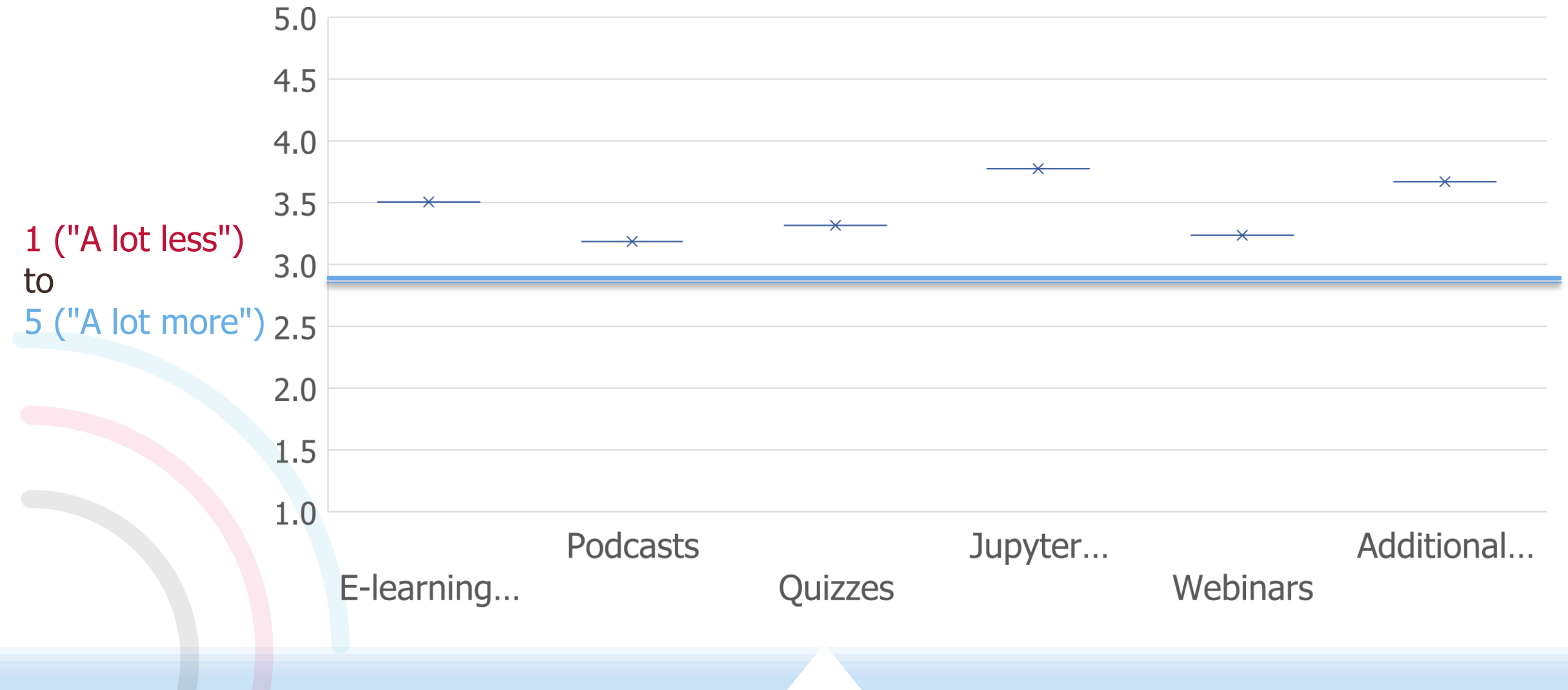
# Satisfaction survey

## Course objectives



# Satisfaction survey

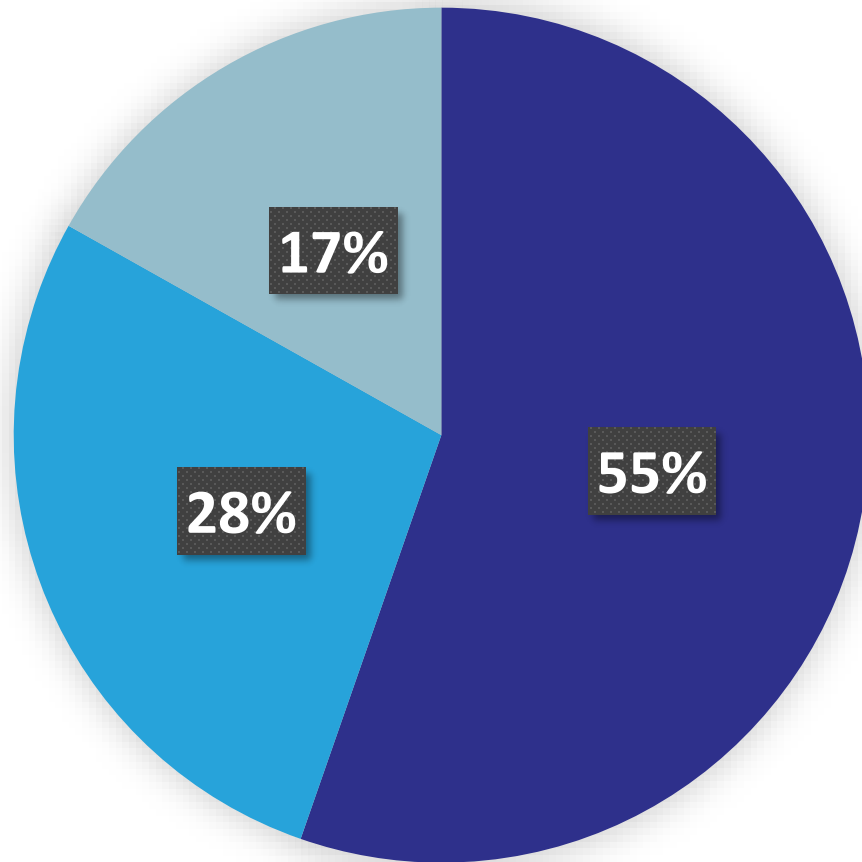
## Content quantity





# Satisfaction survey

## Qualitative feedback



# Satisfaction survey

## Areas for improvement

**Jupyter  
Notebooks  
exercises**



**Thank you for your attention!**

