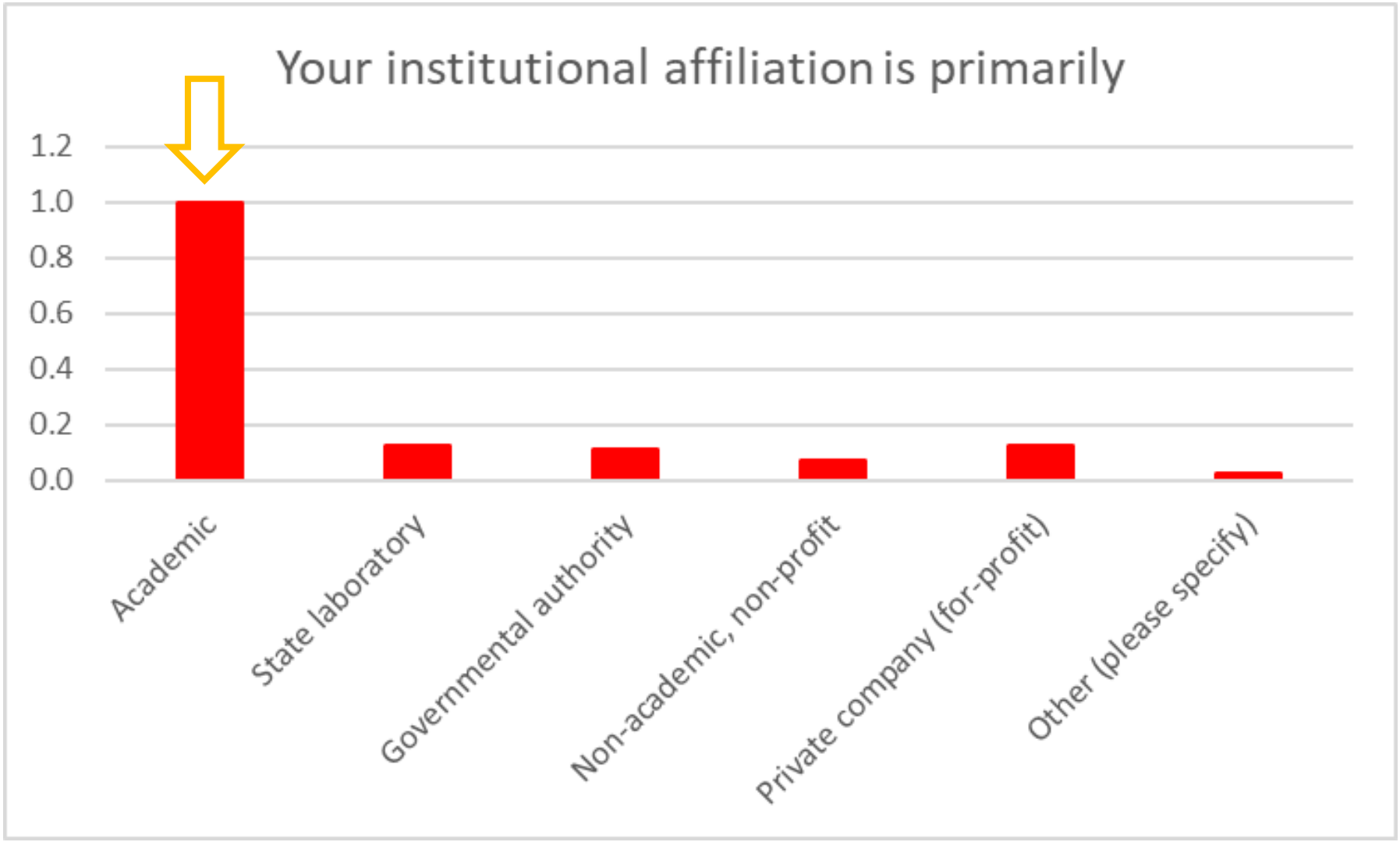
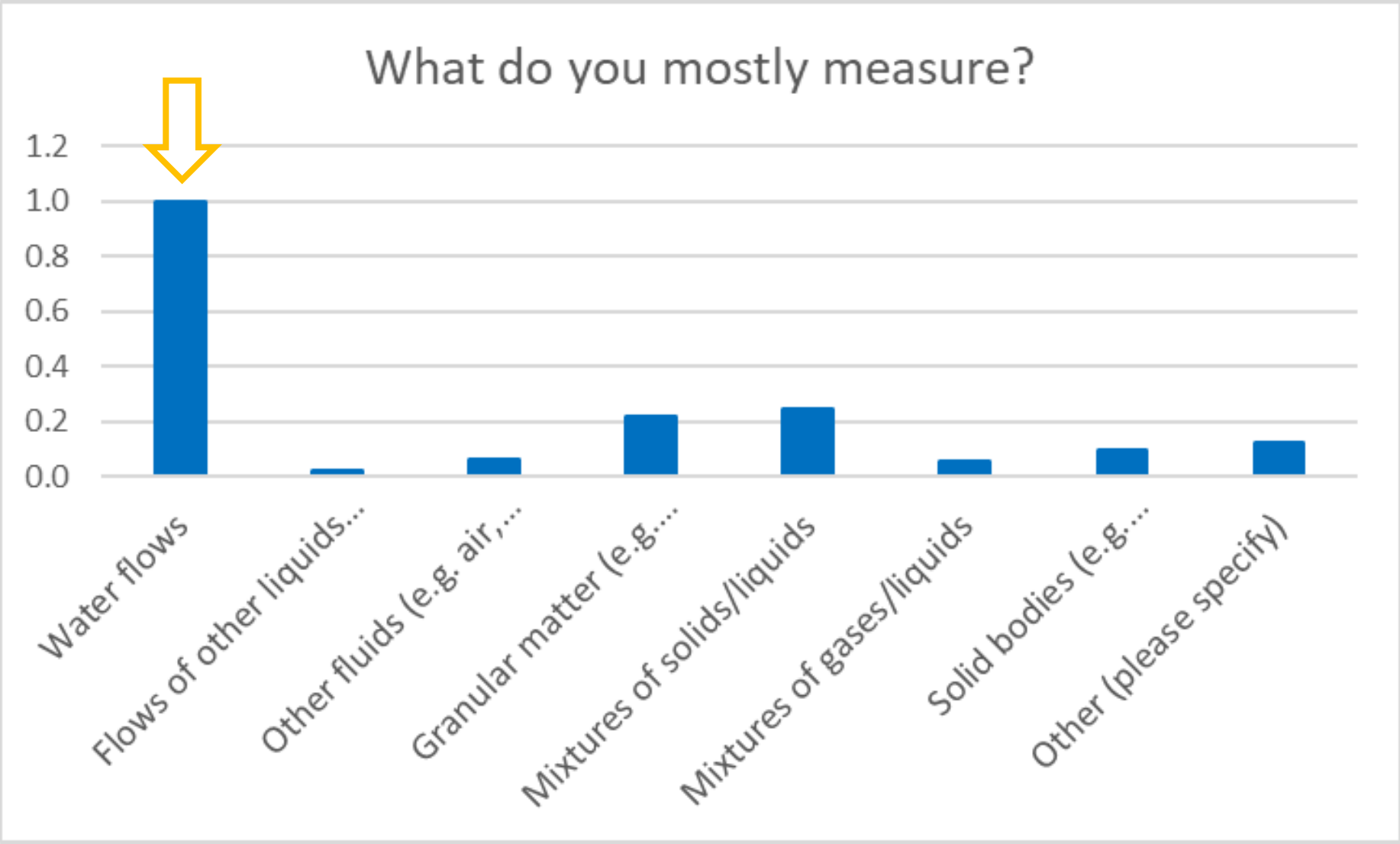
Q1	What do you mostly measure?
Q2	Which quantities
Q3	Which scale
Q4	Which primary applications
Q5	Select the instruments you most use (rank them by frequency or relevance of usage e.g. 1- used very frequently, publications mostly based on thus acquired data... 4 - rarely used, available in the lab)
Q6	Which methods does your type of investigation requires?
Q7	In your activity you
Q8	Your institutional affiliation is primarily
Q9	Would you consider to actively engage in IAHR-promoted initiatives to (please rank and select only the activities for which you are reasonably certain to be able to contribute)
Q10	Would you consider to engage in other types of IAHR-promoted initiatives?
Q11	Please address any other issues not covered in this survey

Sample sorting



Some questions gathered the same answer from almost all participants that clearly sort the available sample

Sample sorting



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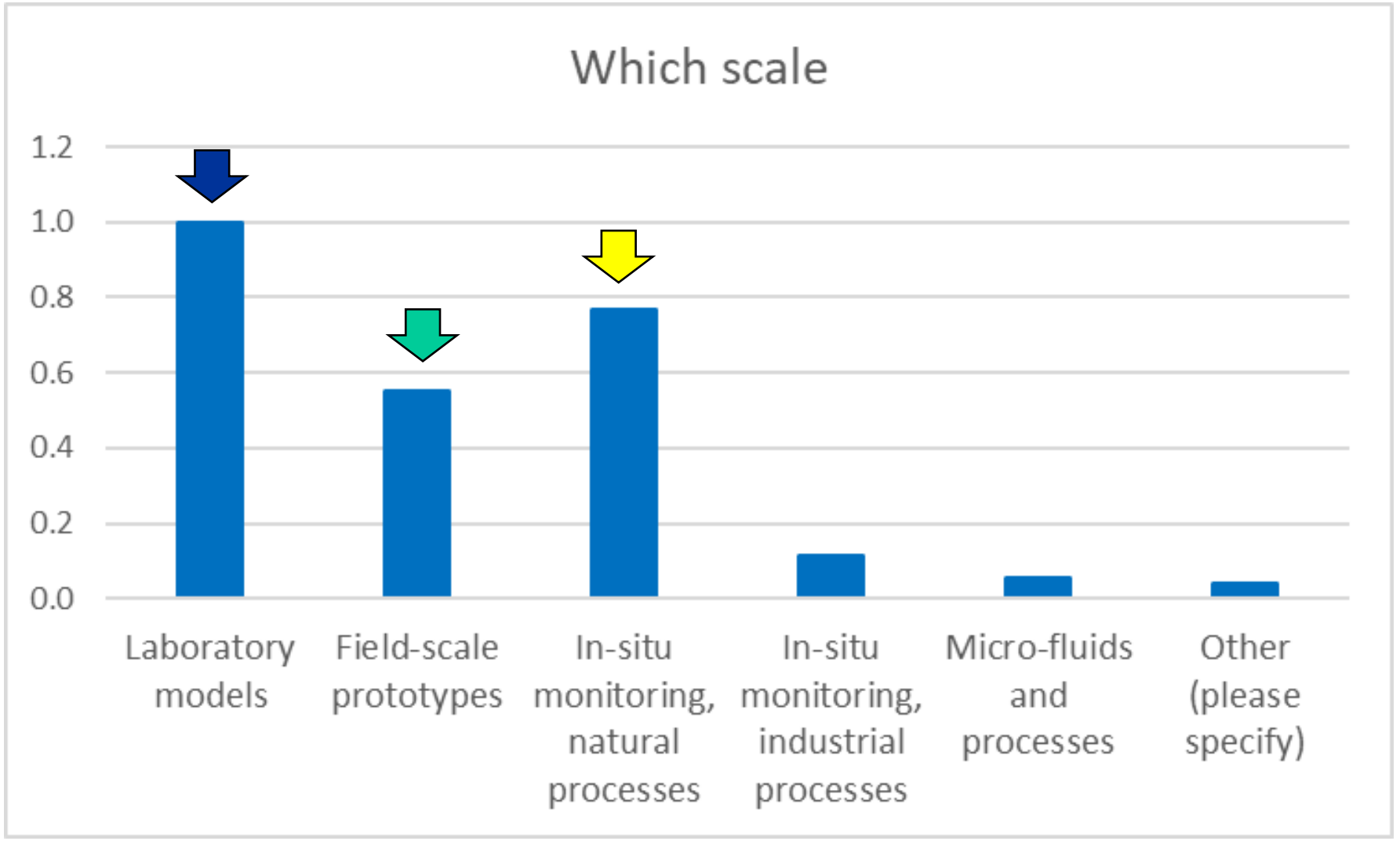
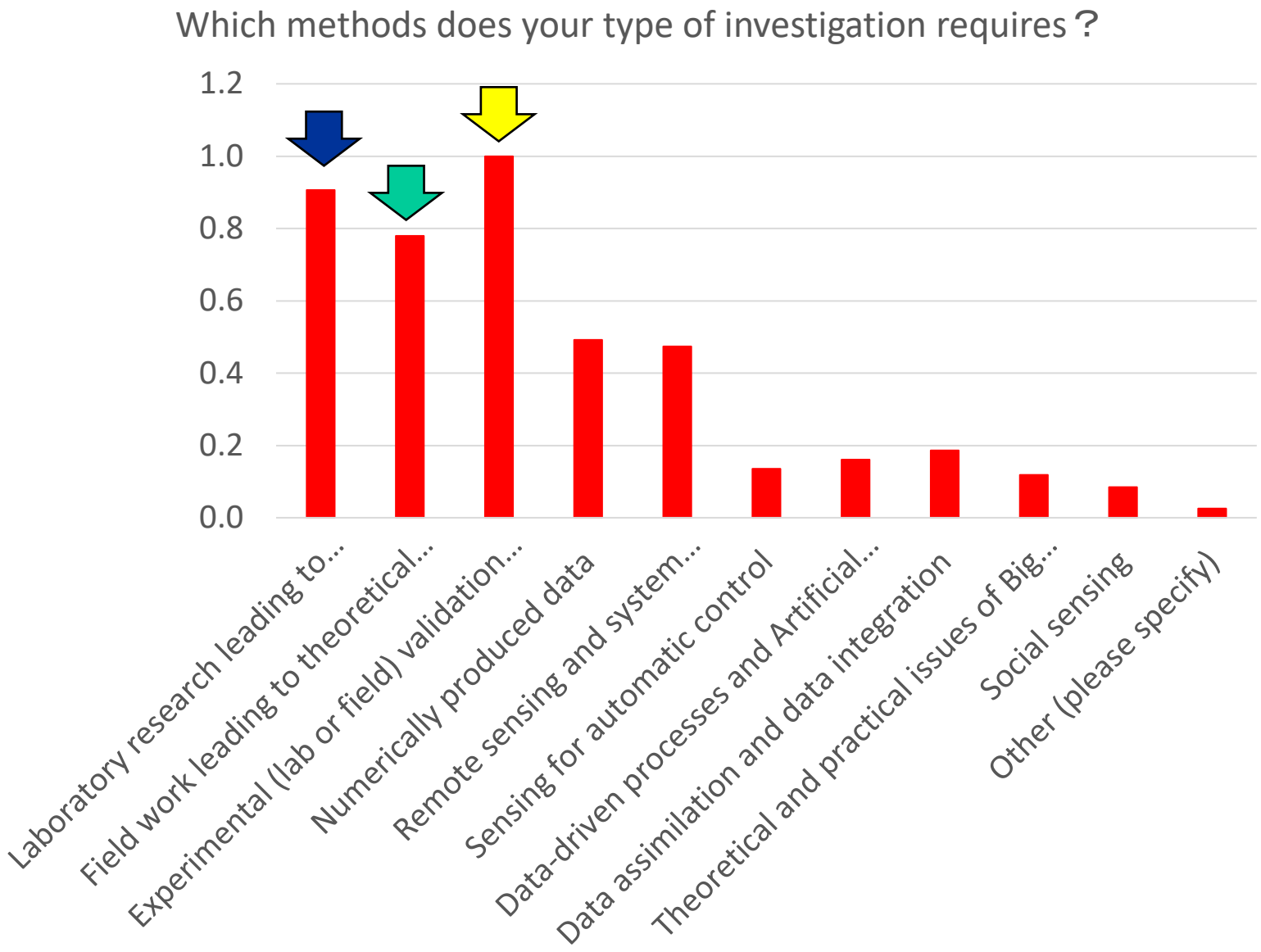


In other cases, the sample is poorly sorted among two-three main classes

Sample sorting



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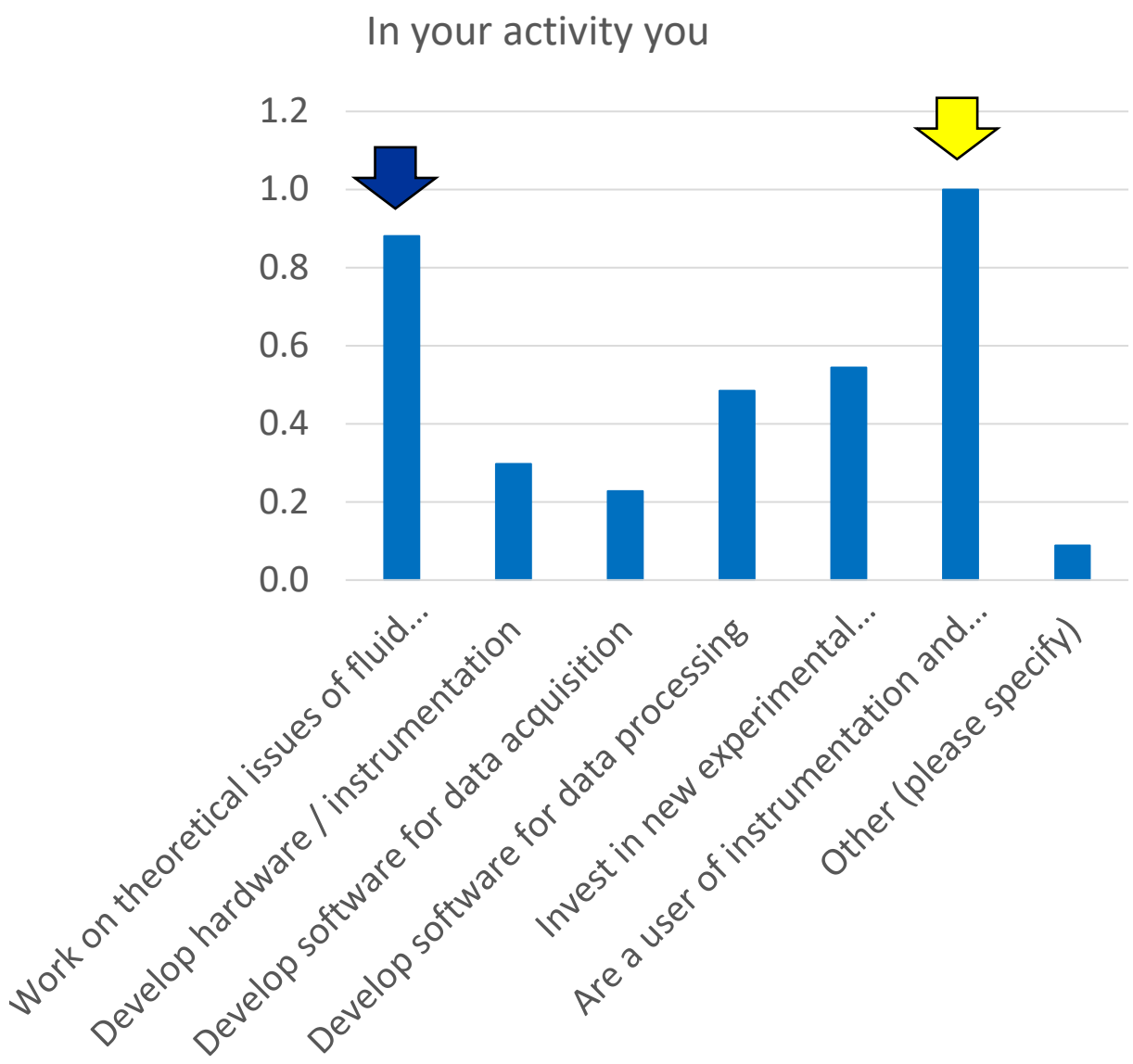
Sample sorting



In other cases, the sample is poorly sorted among two-three main classes

Best FEATURES to classify observations

SCALE	METHOD	ACTIVITY
Lab. models	Lab. for theory advancement	Theoretical issues
Prototype in the field	Field for theory advancement	Instrument users
Field monitoring	Lab/field for numerical modelling	

Observations include selected features and scores from ranking questions/answers

Q1	What do you mostly measure?
Q2	Which quantities
Q3	Which scale
Q4	Which primary applications
Q5	Select the instruments you most use (rank them by frequency or relevance of usage e.g. 1- used very frequently, publications mostly based on thus acquired data... 4 - rarely used, available in the lab)
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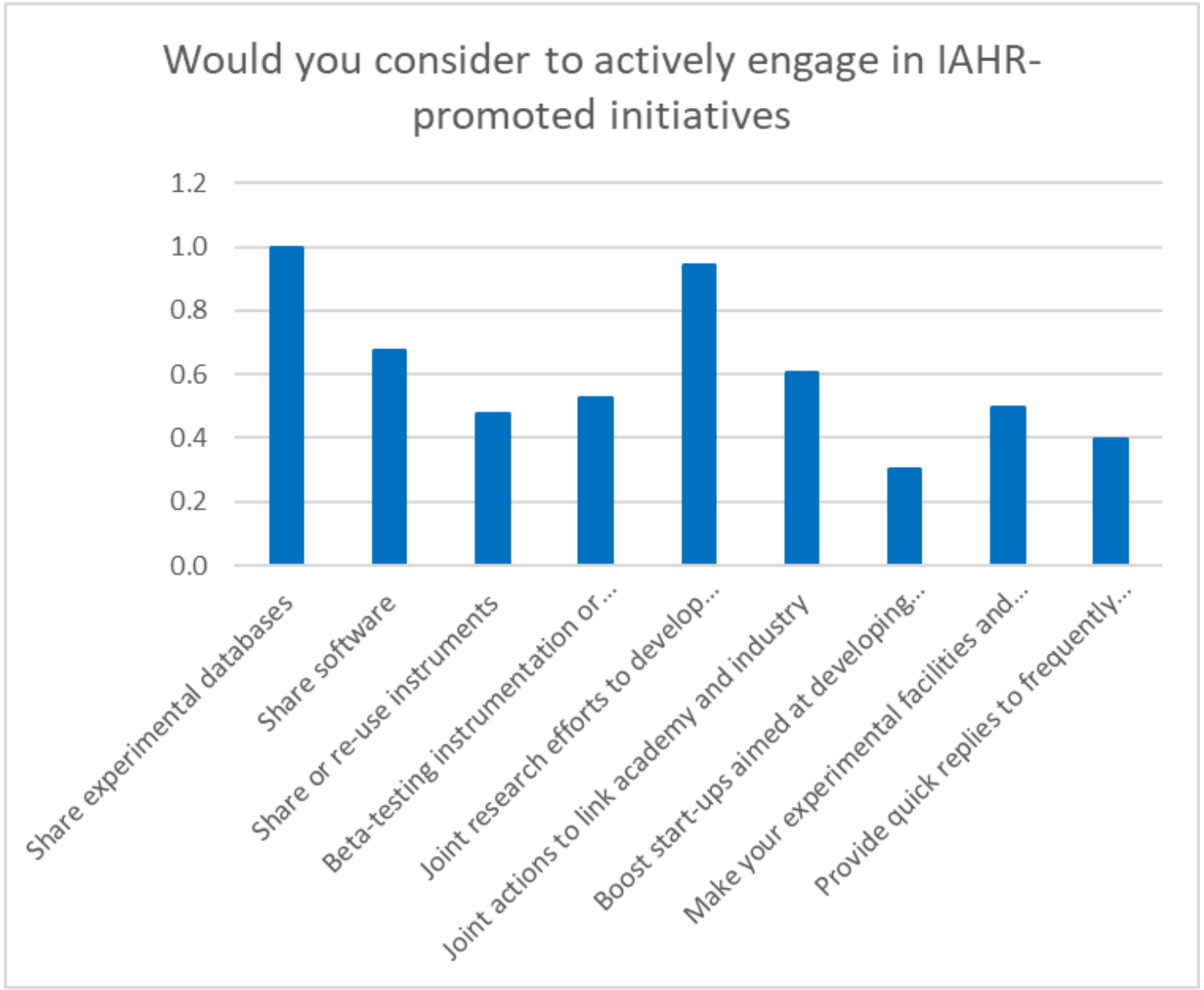
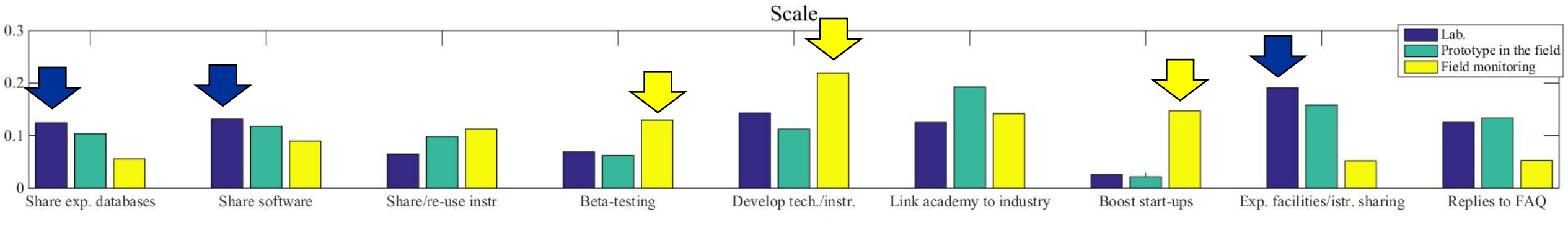


k-means clustering to partition the observations is applied for selected features and resulting scores from "IAHR promoted initiatives"

Number of clusters is increased up to 95% overlapping of a single cluster to selected feature (on at a time)

The corresponding cluster location yield the scores for each selected feature

Correlations can be argued between selected features and "IAHR promoted initiatives"



For example, promotion of initiatives related to:

- Boosting of start up
- Beta testing and
- Joint efforts to develop techniques/instr.

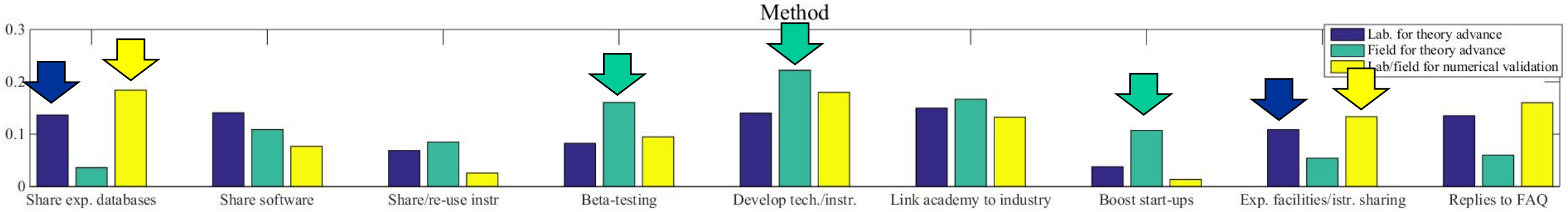
appear more important for people working at the scale of field monitoring of natural processes

Promotion of initiatives related to sharing of:

- Data
- Software and
- Exp facilities

appear more important for people working at lab. scale

Correlations can be argued between selected features and "IAHR promoted initiatives"



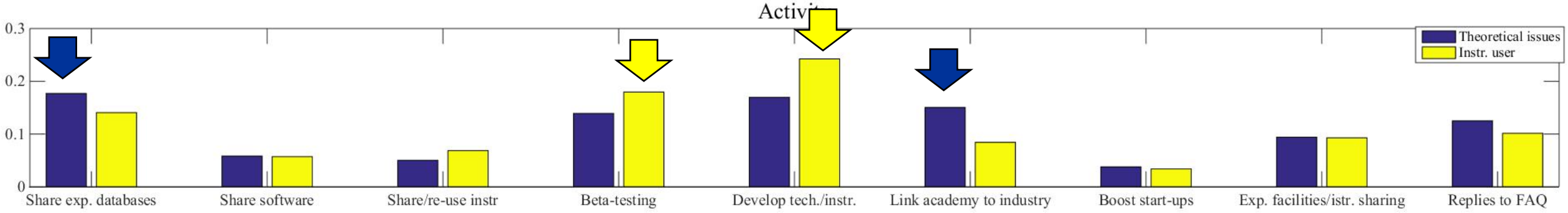
- Sharing database and
- Sharing facilities

is important for people working lab. for theoretical advancement and at the same for people working in lab. and in the field for numerical modelling validation

People working in the field for theory advancement would concentrate their interest in initiatives promoting

- Boosting of start up
- Beta testing and
- Joint efforts to develop techniques/instr.

Correlations can be argued between selected features and "IAHR promoted initiatives"



- Sharing databases and
- Link to industry

are important for people focusing on theoretical issues whereas

instrument users would like to collaborate in

- Beta testing and
- Joint efforts to develop techniques/instr.

SCALE

- Boosting of start up
- Beta testing and
- Joint efforts to develop techniques/instr.

appear more important for people working at the scale of field monitoring of natural processes

- Data
- Software and
- Exp facilities

appear more important for people working at lab. scale

METHOD

- Sharing database and
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People working in the field for theory advancement would concentrate their interest in initiatives promoting

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ACTIVITY

- Sharing databases and
- Link to industry

are important for people focusing on theoretical issues whereas

instrument users would like to collaborate in

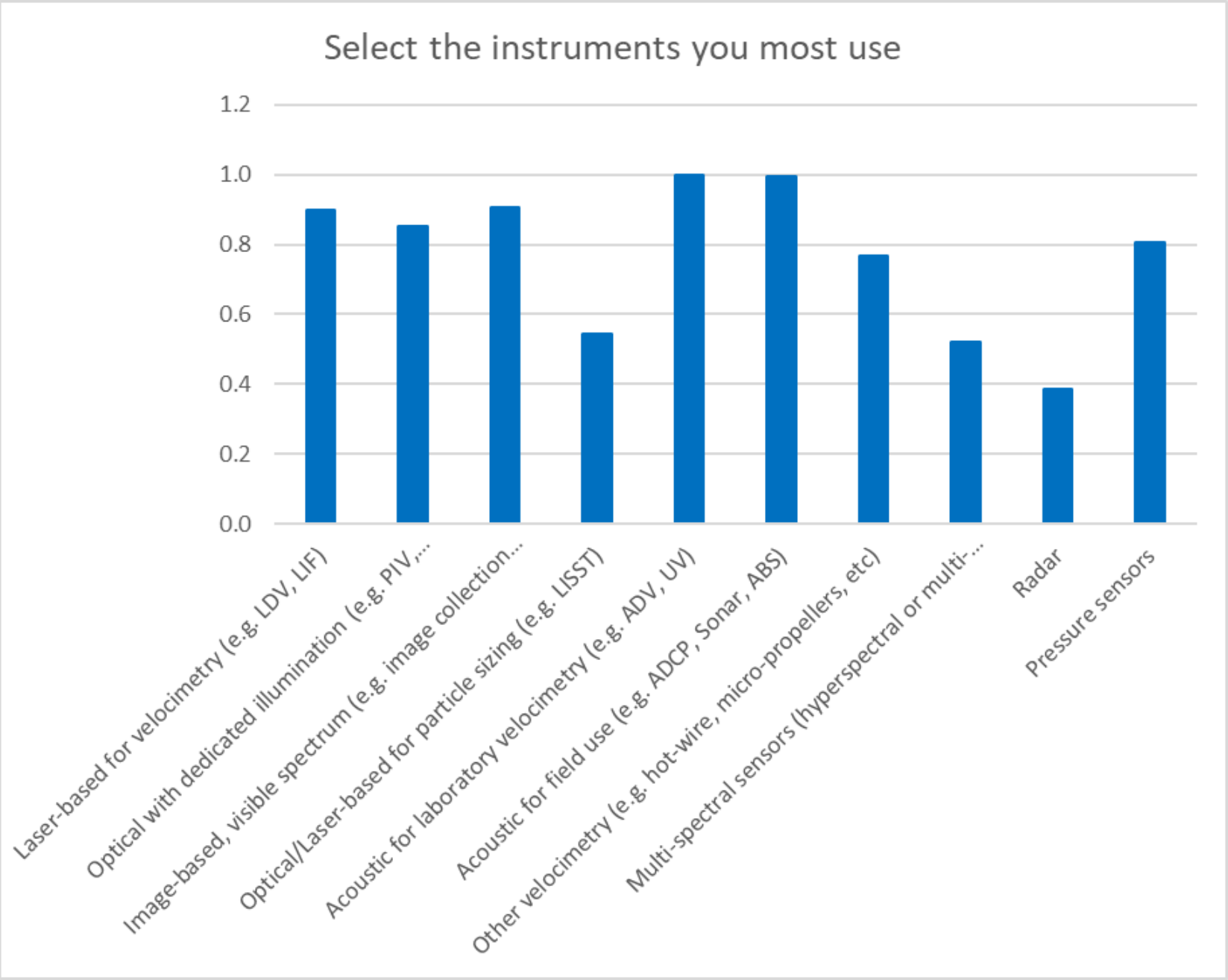
- Beta testing and
- Joint efforts to develop techniques/instr.

SUMMARIZING two main clusters of people are classified

- LAB ORIENTED/THEORETICAL RESEARCHERS
- FIELD RESEARCHERS/INSTRUMENTAL USER

which mostly reflect TWO main clusters of interests, respectively

- Sharing database/software/facilities
- Instrumentation driven efforts: beta testing/instr. development/start up

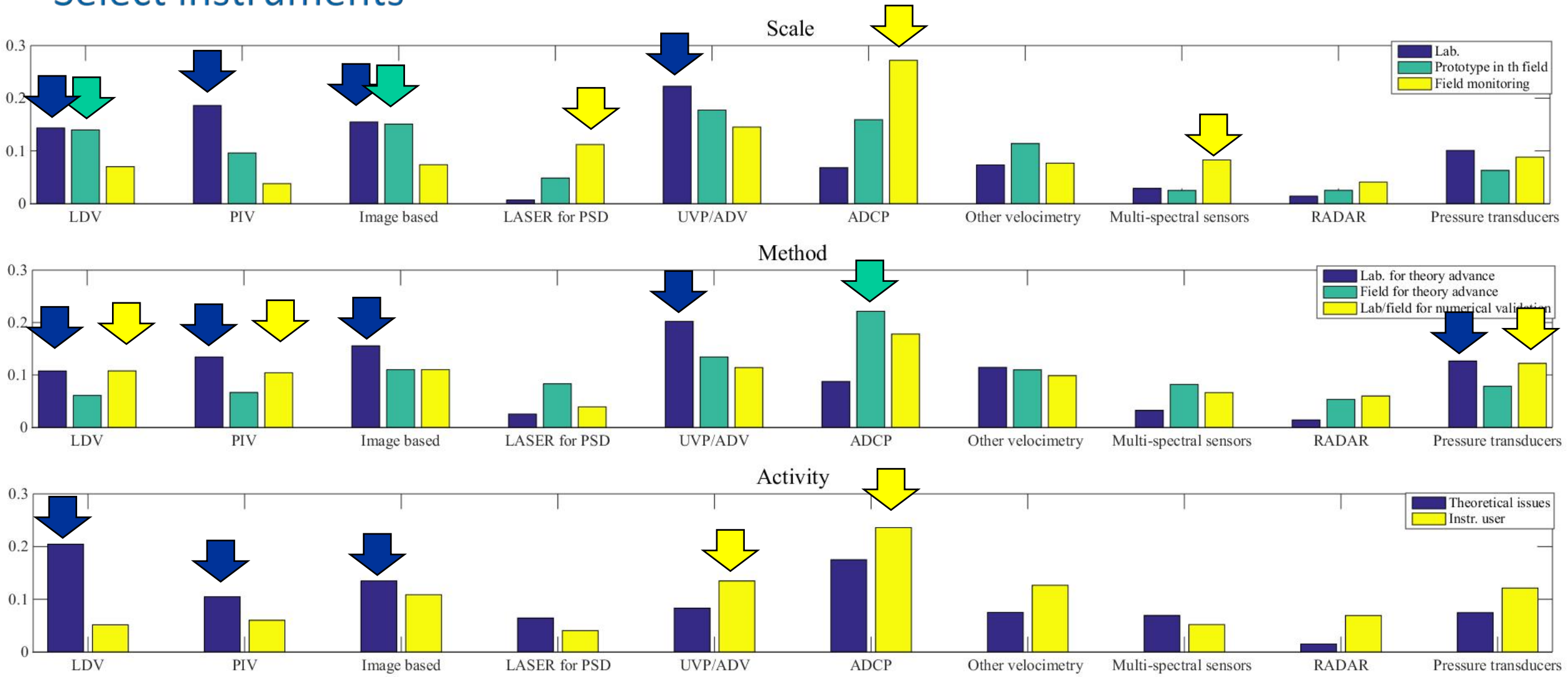


k-means clustering to partition the observations is applied for selected features and resulting scores from "Select the instruments"

Number of clusters is increased up to 95% overlapping of a single cluster to selected feature (on at a time)

The corresponding cluster location yield the scores for each selected feature

Correlations can be argued between selected features and "Select instruments"



SCALE

- ADCP
- Laser for PSD and
- Multi-spectral sensors

appear more important for people working at the scale of field monitoring of natural processes

- PVI
- UVP/ADV

are more important for people working at lab. scale and this group share the same rate of interest for

- LDV
- Image based methods

with researchers working at prototype scale in the field

METHOD

- LDV-PIV-Image based
- UVP/ADV and
- Pressure sensors

are more used from researchers dealing with lab. exp. for theoretical advancement and working in lab. and in the field for numerical modelling validation but not for the PIV

People working in the field for theory advancement for the majority indicated

- ADCP

ACTIVITY

- LDV-PIV-Image based

are important for people focusing on theoretical issues whereas

Researcher which identify themselves as instrumental users mostly indicated ultrasound devices

- ADCP
- UVP/ADV

SUMMARIZING two main clusters of people are classified

- LAB ORIENTED/THEORETICAL RESEARCHERS
- FIELD RESEARCHERS/INSTRUMENTAL USER

which mostly reflect TWO main clusters of instrumentation, respectively

- Laser/optical/image based
- Ultrasound based

with the UVP/ADV shared to some degree

Correlations can be argued between sorted main clusters

- LAB ORIENTED/THEORETICAL RESEARCHERS
- FIELD RESEARCHERS/INSTRUMENTAL USER

which mostly reflect TWO main clusters of interests, respectively

- Sharing database/software/facilities
- Instrumentation driven efforts: beta testing/instr. development/start up

- LAB ORIENTED/THEORETICAL RESEARCHERS
- FIELD RESEARCHERS/INSTRUMENTAL USER

which mostly reflect TWO main clusters of instrumentation, respectively

- Laser/optical/image based
- Ultrasound based

with the UVP/ADV shared to some degree

Conclusions

- Sharing database/software/facilities initiatives focusing on laser/optical/image-based devices should be proposed to LAB ORIENTED/THEORETICAL RESEARCHERS
- Instrumentation driven efforts such as beta testing/instr. development/start up boosting focusing on ultrasound instrumentations would be better answer to FIELD RESEARCHERS/INSTRUMENTAL USER needs