

# Eddy Covariance fluxes



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## Starting

- ✓ Overview of SEB stations during SOP – LIAISE

## Mentimeter 1

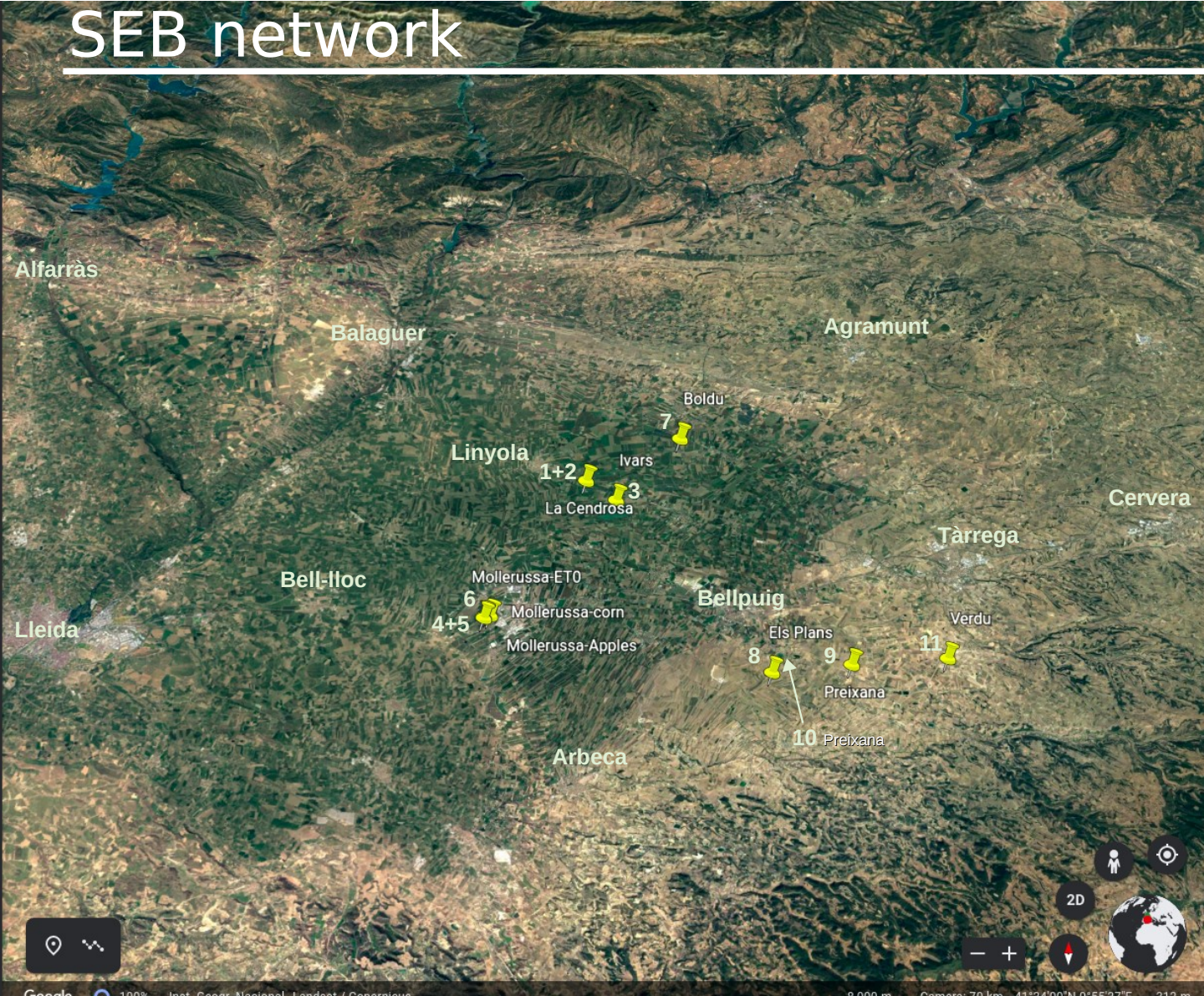
- ✓ General questions: 2 min → overview of participants

## Mentimeter 2

- ✓ Unified EC data post-processing: WUR suggestion for SOP
  - ✓ 5 min to participate through 4 slides

## Discussion

- ✓ Summary of results and discussion
- ✓ Concluding remarks



## Irrigated:

- ✓ **La Cendrosa (Flooded):**
  1. Alfalfa (CNRM)
  2. Alfalfa (WUR)
- ✓ **Lake Ivars:**
  3. Shallow water (CNRM)
- ✓ **Mollerussa (sprinkler-drip-flooded):**
  4. Natural grass – ET0 (SMC)
  5. Apple Orchard (UIB)
  6. Corn (UIB, OWL)
- ✓ **Boldú (Flooded):**
  7. Corn (UH)

## Rain-fed:

- ✓ **Els Plans (Rain-fed):**
  8. Natural (UKMO)
- ✓ **Preixana:**
  9. Almond trees (Drip?, CNRM)
  10. Alfalfa? (Flood?, LMD)
- ✓ **Verdú (Drip):**
  11. Vineyard (CESBIO)

Details on LIAISE catalogue form (corn – Mollerussa example)

## Data inventory for LIAISE database. SEB details.

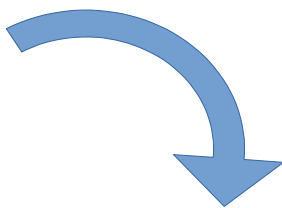
Please, fill in the following form to get an idea of data that will be eventually available on the LIAISE database (hosted by AERIS).

### Identification fields:

<b>Institution:</b>	University of the Balearic Islands		
<b>Contact person:</b>	Daniel Martínez-Villagrasa	@:	dani.martinez@uib.cat
<b>Site:</b>	Mollerussa-Corn		
<b>Instrumentation:</b>	SEB		
<b>Coordinates:</b>	(41.619079, 0.875332)		

### Catalogue details: (Add as many rows as needed)

Sensor Group	Parameter(s)	Time series output	Heights (m)	Datafile format	Calendar
Radiation	Long-wave and Short-wave, up and down radiation flux	1 min, 10 min	2.86	ascii	Early 2022
Eddy-covariance	EC fluxes, avg, etc.	- raw data: 20 Hz - raw statistics: 10 min - corrected statistics: 30 min	3.34	ascii	Early 2022 (raw) Mid 2022 (corrected)
Soil sensors	Temperature, moisture, heat flux	1 min, 10 min		ascii	Early 2022
Air Temperature column	Temp, RH	1 min, 10 min	3.82, 3.61, 2.51, 1.35	ascii	Early 2022
2D Wind	Wind	1 min, 10 min	2.92	ascii	Early 2022
Leaf-wetness sensor	Dew	1 min, 10 min		ascii	Early 2022
Barometer	Pressure	1 min, 10 min		ascii	Early 2022



www.hymex.fr/liaise/database.html

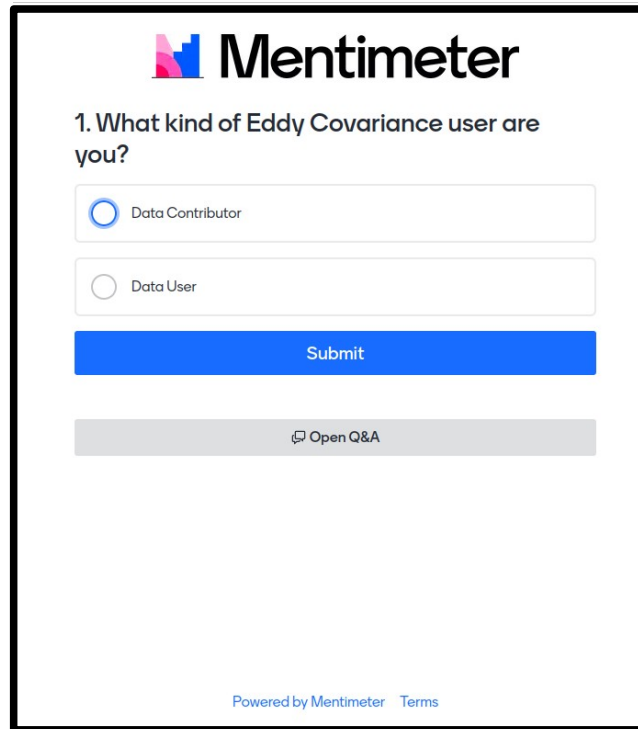
The LIAISE database is hosted by AERIS under the HyMeX data policy. The website is being finalized, but currently field campaign quick-look images have been posted. A basic catalogue and calendar is currently being prepared and will be continuously updated here. The SOP UAV Flight Summary contains detailed information on flights and measurements and will be formatted for the Table below. The data and a detailed description will start being uploaded to the LIAISE AERIS DB in 2022.

Instrument/Platform	Data specification	Geophysical quantity	Temporal/Spatial resolution	File type	Location	Delivery date(tentative)
UHF wind profiler	UHF data at low acquisition mode	- Wind components - Reflectivity - Doppler spectral width - Boundary layer depth - Turbulent Kinetic Energy Dissipation rate	- 2 min temporal resolution - 75 m vertical resolution - vertical coverage: up to about 3 km	Netcdf and PNG quick look images	Els Plans	early 2022
UHF wind profiler	UHF data at high acquisition mode	- Wind components - Reflectivity - Doppler spectral width - Boundary layer depth - Turbulent Kinetic Energy Dissipation rate	- 2 min temporal resolution - 150 m vertical resolution - vertical coverage : up to about 8 km	Netcdf and PNG quick look images	Els Plans	early 2022

@SEB data providers:

Please, send the form filled as soon as possible to dani.martinez@uib.cat

- ✓ Go to [www.menti.com](http://www.menti.com) → Enter code 2684 3770



**Mentimeter**

1. What kind of Eddy Covariance user are you?

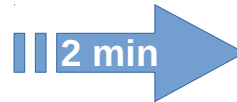
Data Contributor

Data User

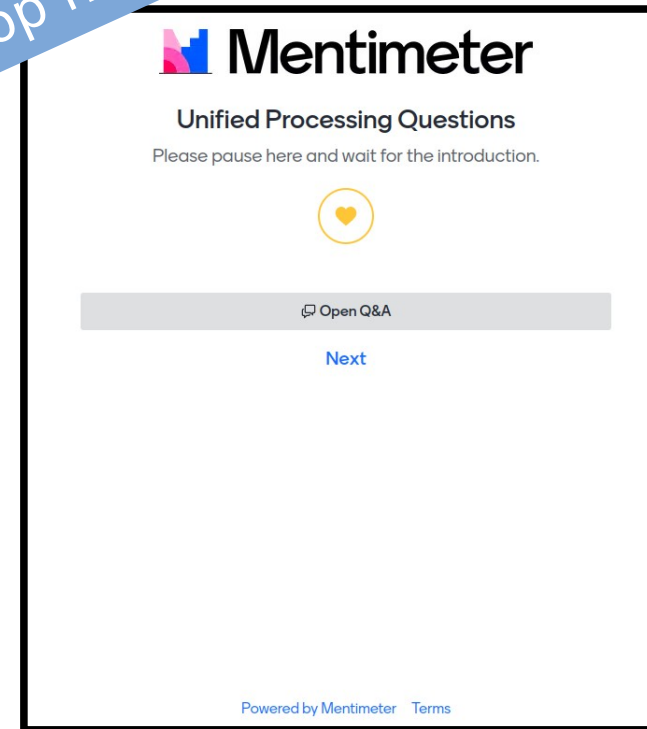
Submit

Open Q&A

Powered by Mentimeter Terms



Stop here!



**Mentimeter**

Unified Processing Questions

Please pause here and wait for the introduction.

Open Q&A

Next

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5 min

## Survey on unified processing:

- ✓ Do you agree on unified processing across all SEB sites? (yes/no)

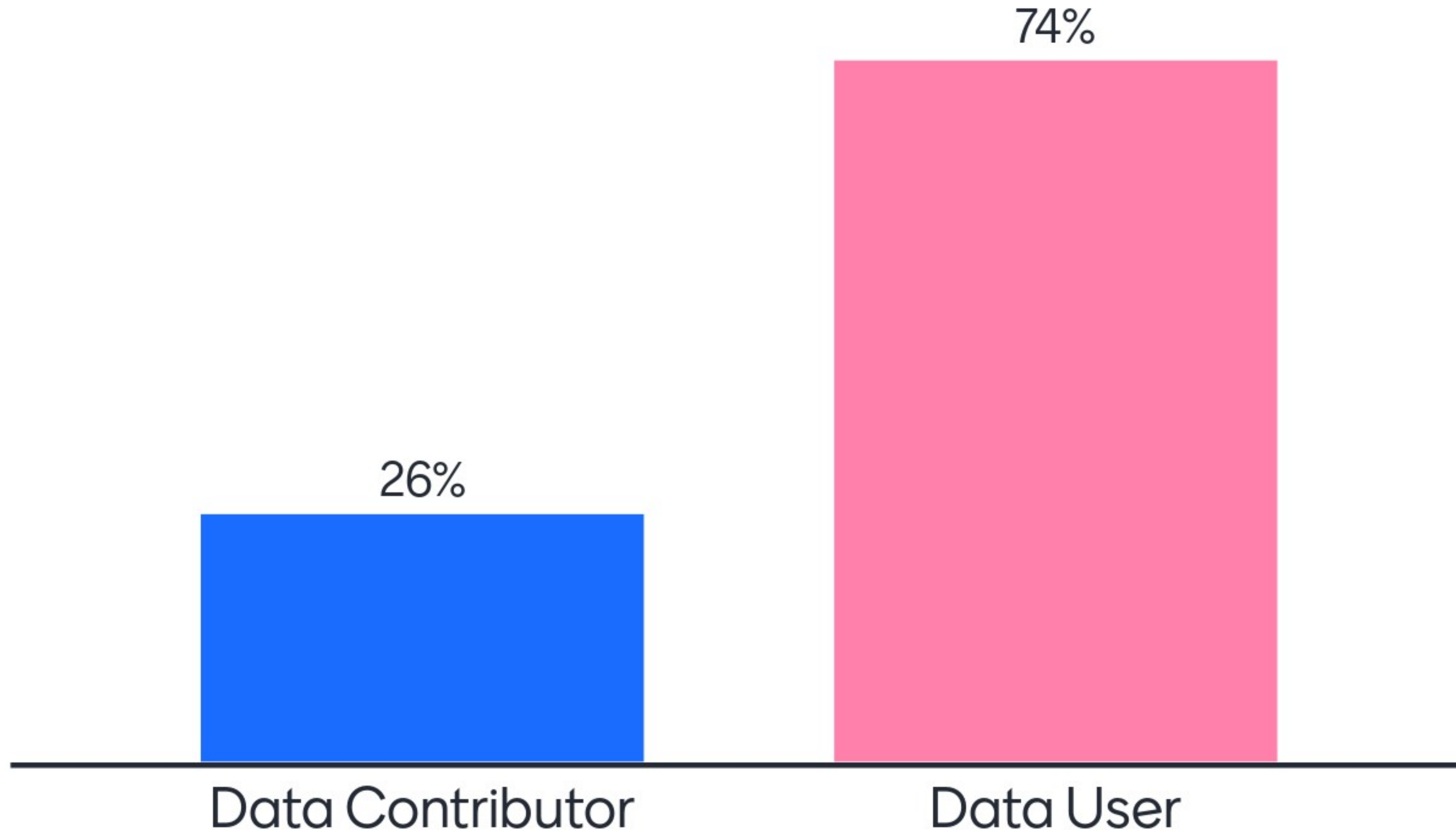
## EC data post-processing settings/features:

- ✓ Averaging interval: 10 min / 30 min / Both / Other
  - ✓ Flux correction
  - ✓ Pre-processing
  - ✓ Post-processing
- } Disagree (1) – Neutral (2) – Agree (3)



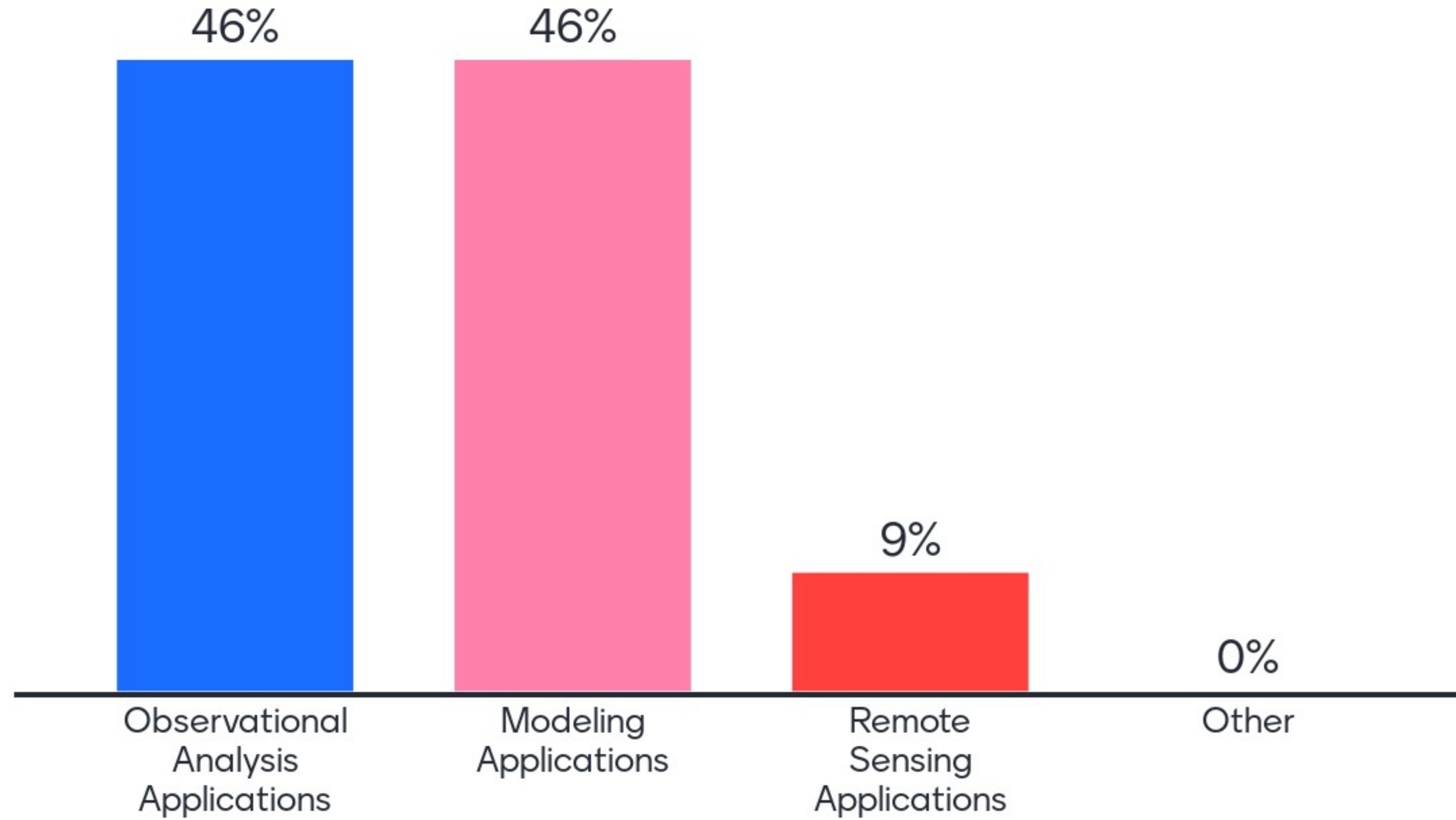
# General Interest Questions

# 1. What kind of Eddy Covariance user are you?

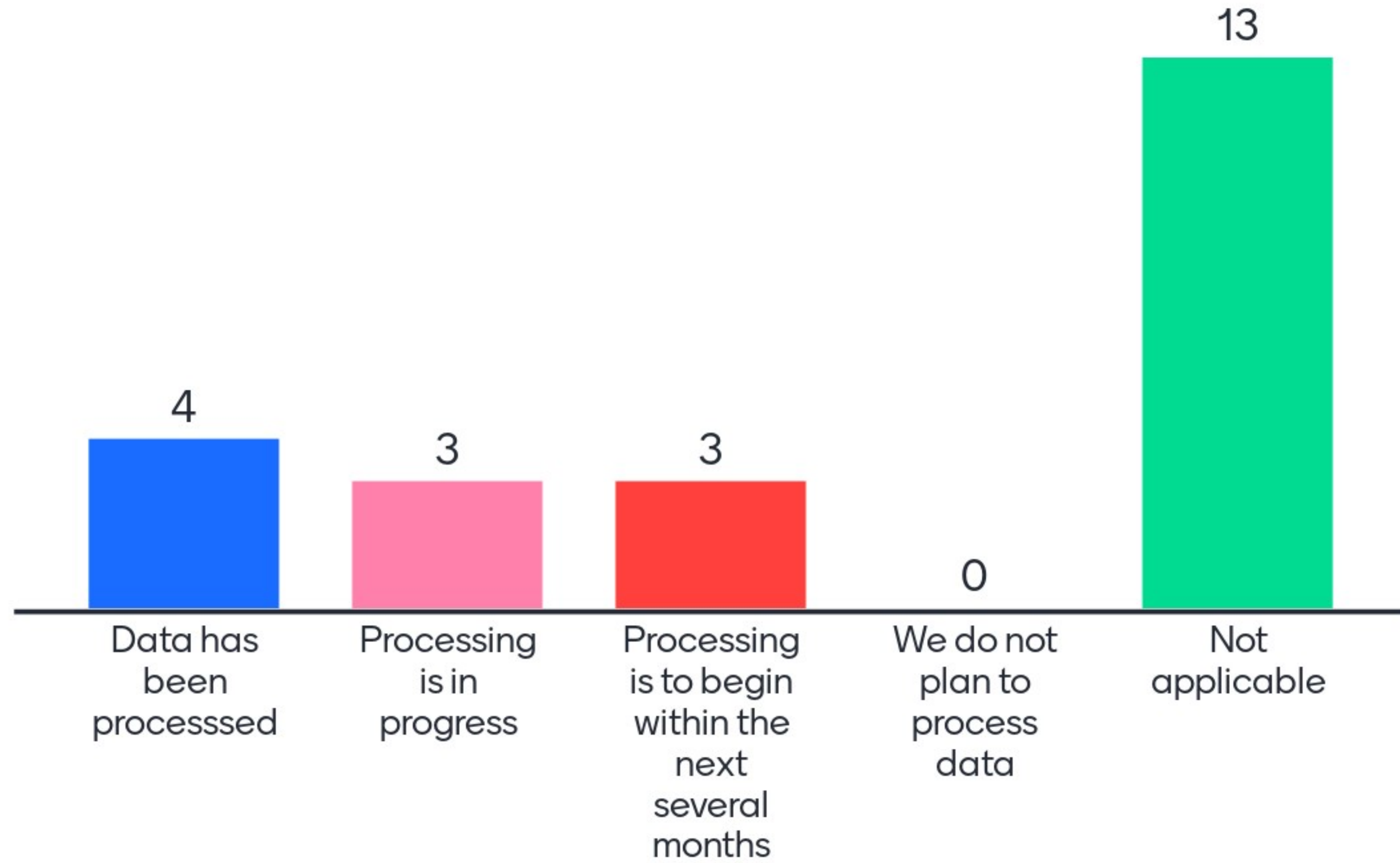




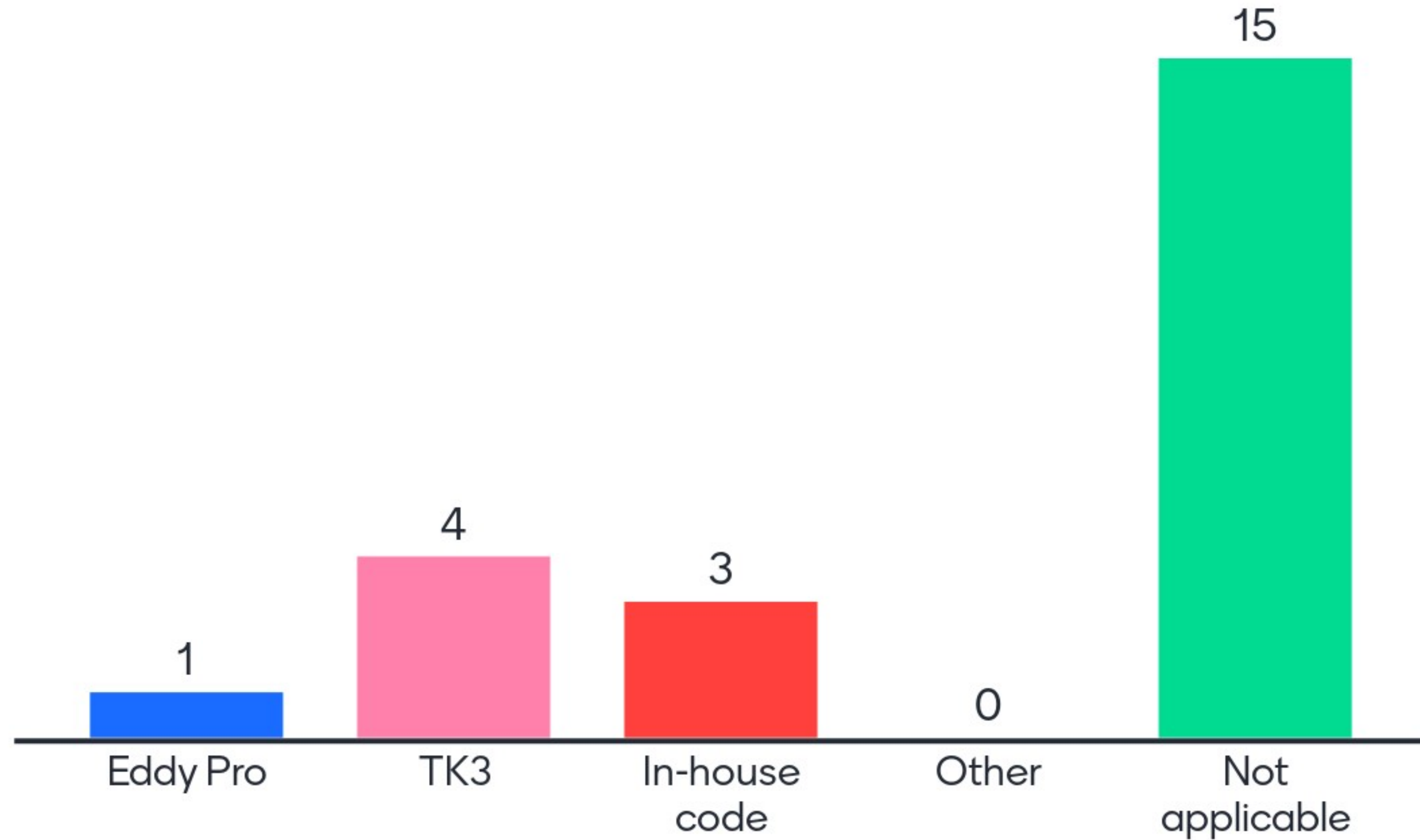
## 2. What kinds of applications do you have for the EC data? (Select all that apply)



# 3. Data Providers: What is the status of your EC processing?



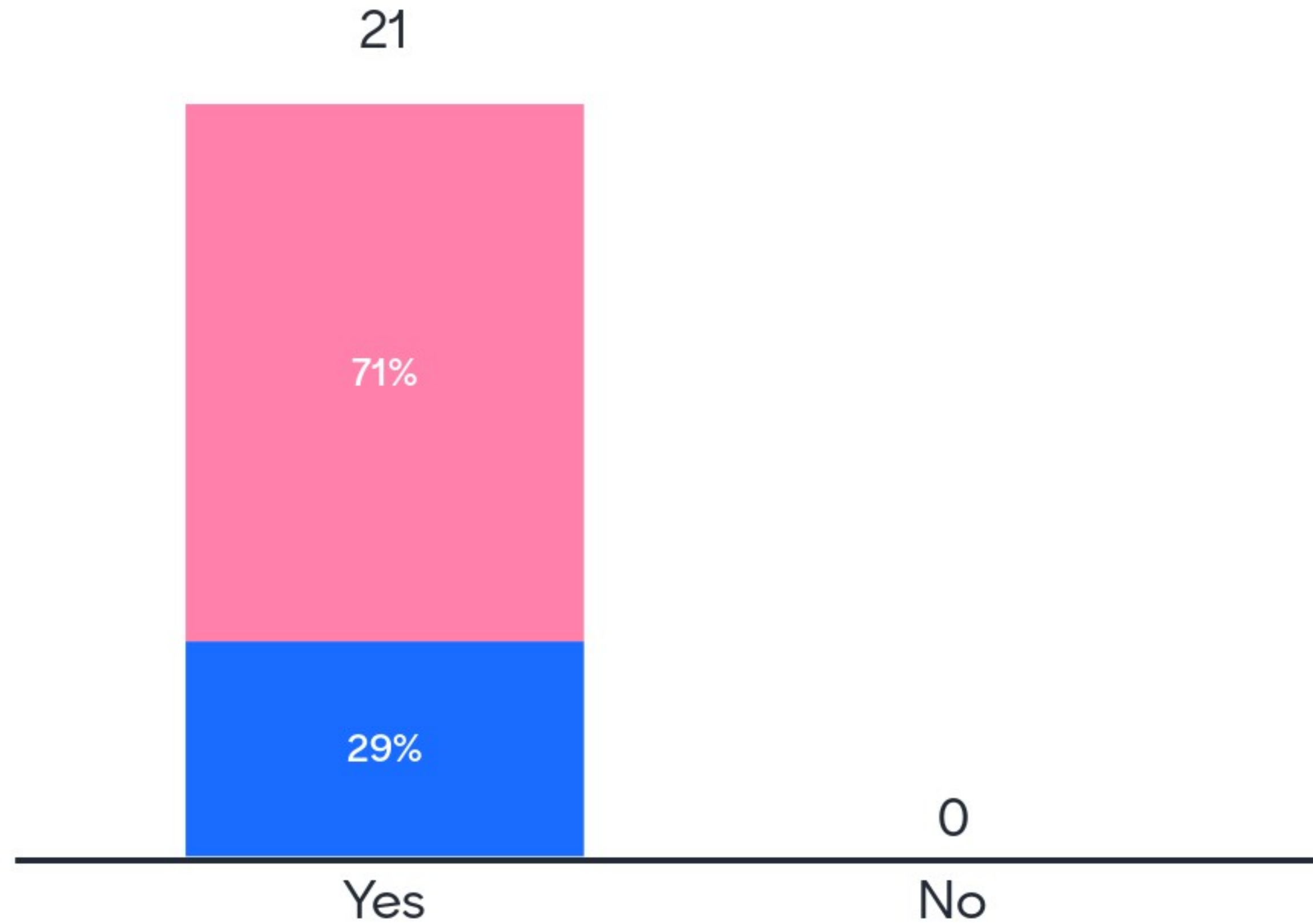
# 4. Data Providers: What software have you used to processed your EC data?



# Unified Processing Questions

Please pause here and wait for the introduction.

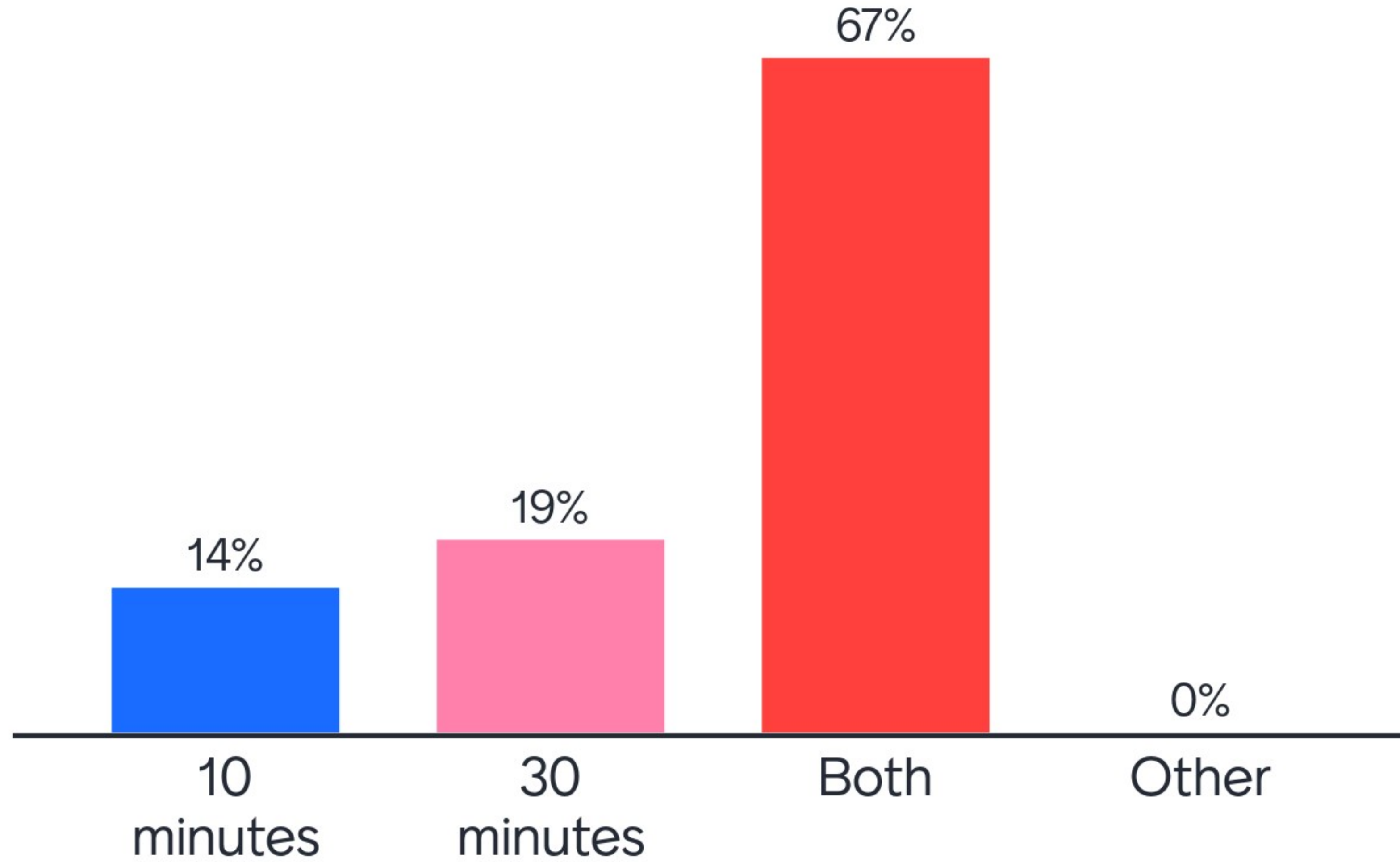
# 5. Do you agree with unified processing across all SEB sites for the SOP?



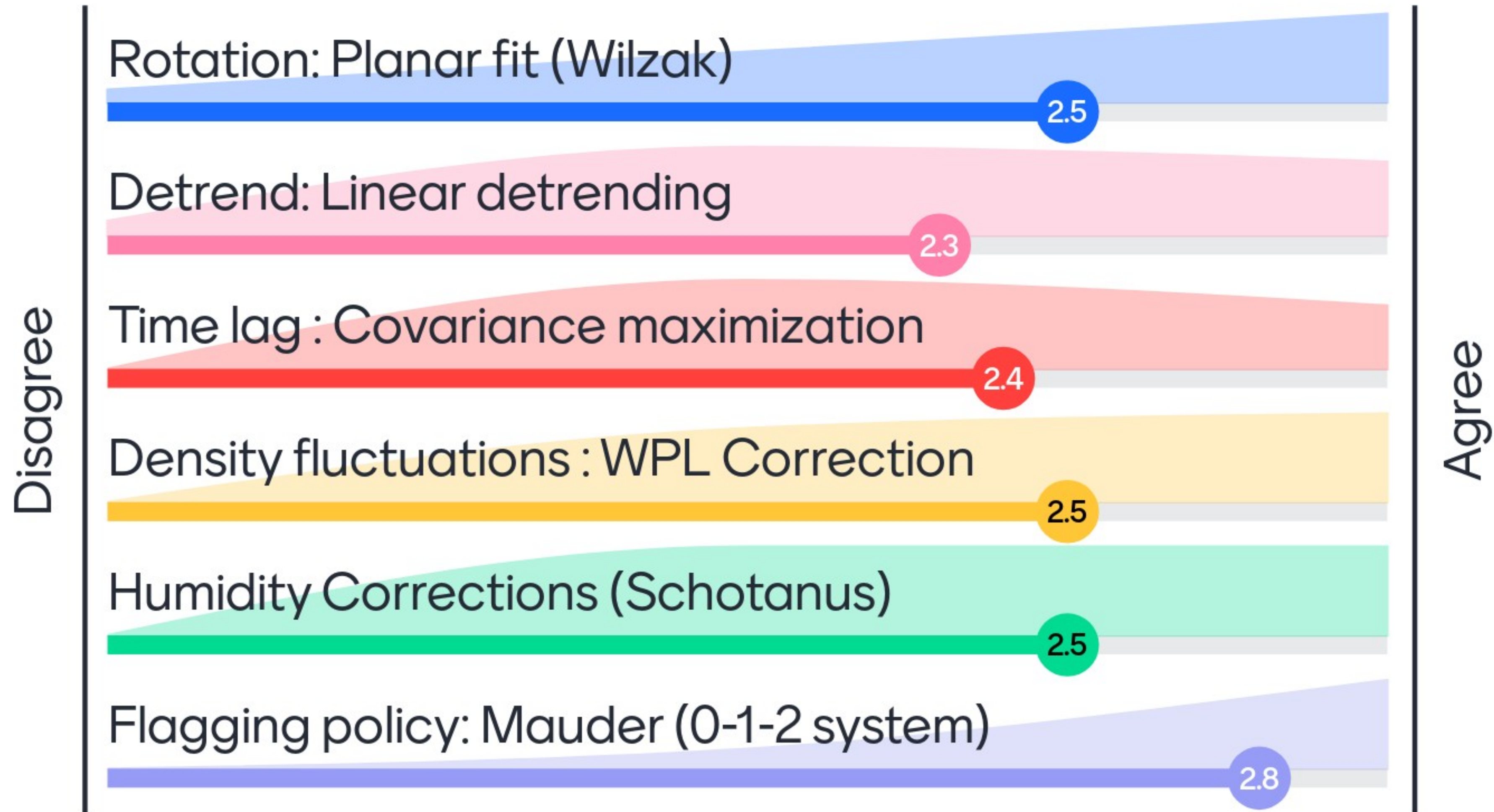
1. What kind of Eddy Covariance user are you?

- Data Contributor
- Data User

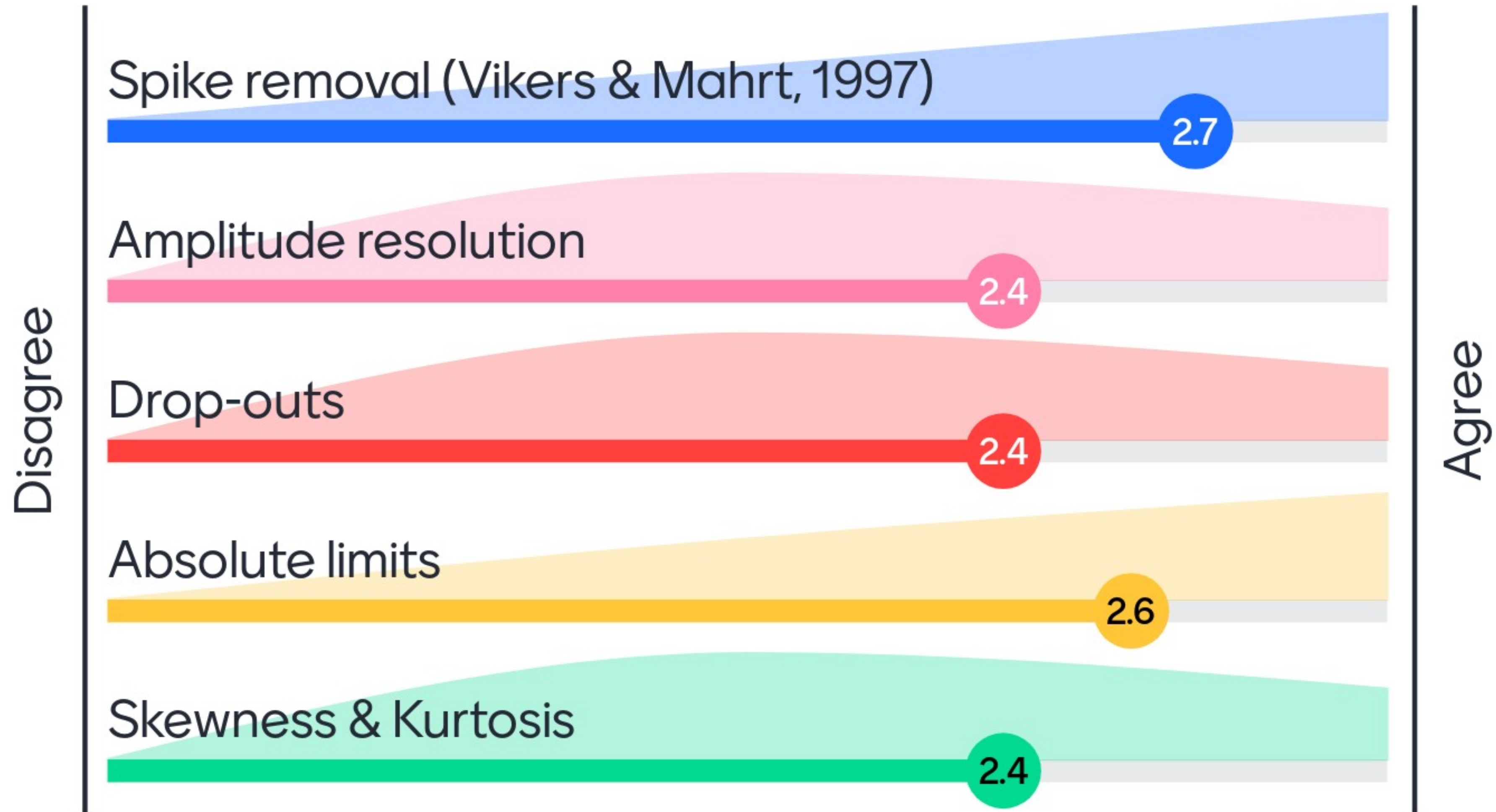
# 6. What should be the averaging interval?



# 7. Flux Processing: Do you agree with the following settings?

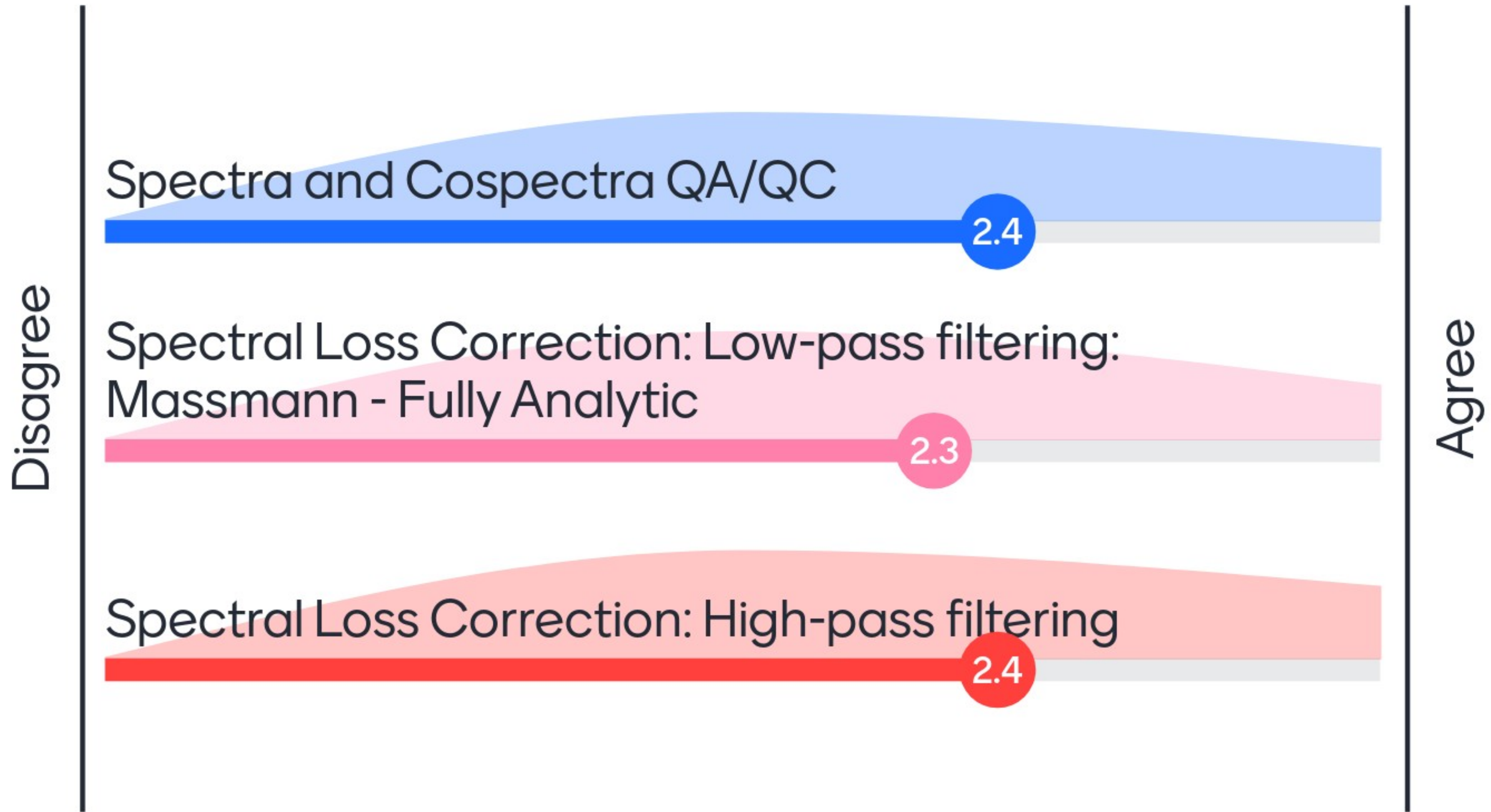


## 8. Statistical Pre-Processing: Do you agree with the following settings?





# 9. Statistical Post-Processing: Do you agree with the following settings?



**End**



- Unified processing – all SEB data processed with the same corrections/system so that SEB stations can be directly compared
- Unified processing of SEB stations done by Wageningen for the SOP
  - In addition to individual processing done by the data contributors
- We have agreed on standard set of corrections, etc.
  - Details from the Mentimeter presentation

What do we need from data providers?

1. Raw EC Data (text files)
2. Metadata (Station information, meteorological data)

Data collection procedure?

1. If AERIES database is up by March, data uploaded directly there
2. Otherwise, we will request data directly from data contributors

After data processing?

1. Data will be available in text file (one per station) for SOP
2. Housed on the AERIES database
3. Processing log files and processing details shared