# How to use Data Models to Enhance **Interoperability** in the VO

## Workshop After-sales

# Why Using Models in the VO

**What could I do with the models that I can't do now?**

- Get a clean representation of the coordinate systems
- Get a clean representation of the errors
- Support cross-columns parameters
  - Columns grouping
  - Complex errors (pos + pm + parallax)
- Gather data from multi-table VOTable (sources + detection)
- Exchange model instances with SAMP

**We need models and tools to convince people to go into that way**

# Chicken-Egg DM Deadlock

**Let's consider we have working proposals for both models and annotation**

**Client developer**
I'll support model mapping **when data providers** will annotate their data

**Data provider**
I'll annotate my data when **client developers** will be able to process annotated data

**Final users won't break the loop**
I can live without annotated data

# A DM Workshop to break the loop

**Working group committed by the TCG to run a workshop to build a consensus that can get the modeling activities back on the road**

**FEBRUARY 2021**: use case workbench setup
- Use-case: raw data
- Proposal: Annotated VOTable + documentation
- Issues + Wiki

**MARCH-APRIL 2021**: open contributions
- Exercice
- Comment
- Proposals

**MAY 2021**: Report at Interop

**July 2021**: Mapping syntax finalized

# Workshop Key Facts

**Models**

- Meas Coord
  - New Lon/Lat point class
  - Complete the RFC
- Cube
  - Start the PR process
- Mango
  - Implementation of the the modification suggested while the workshop
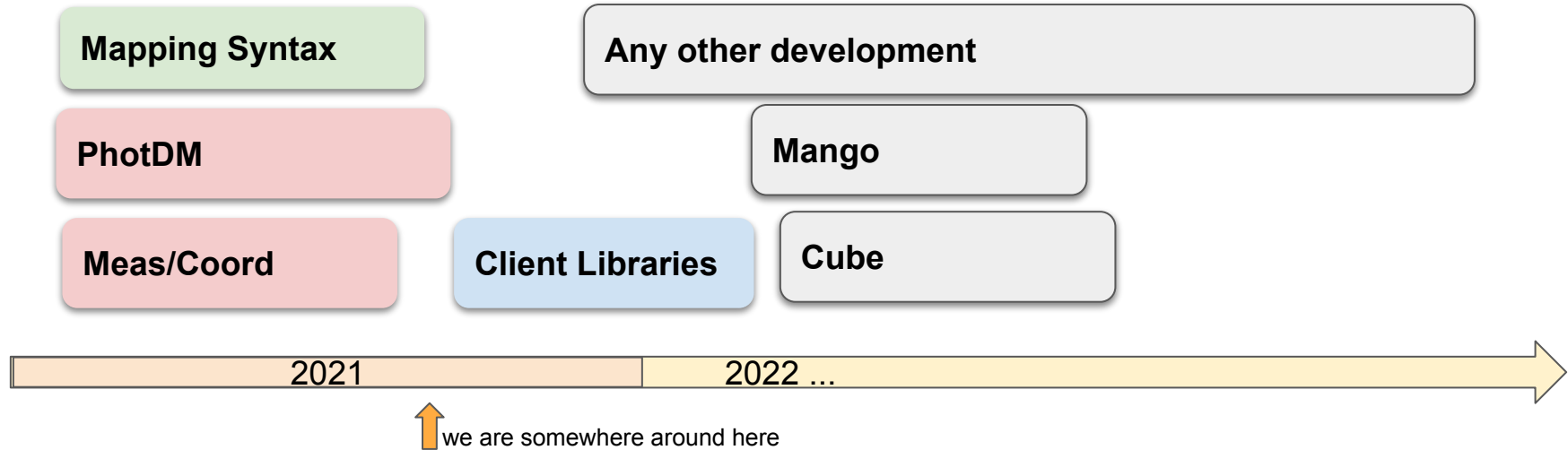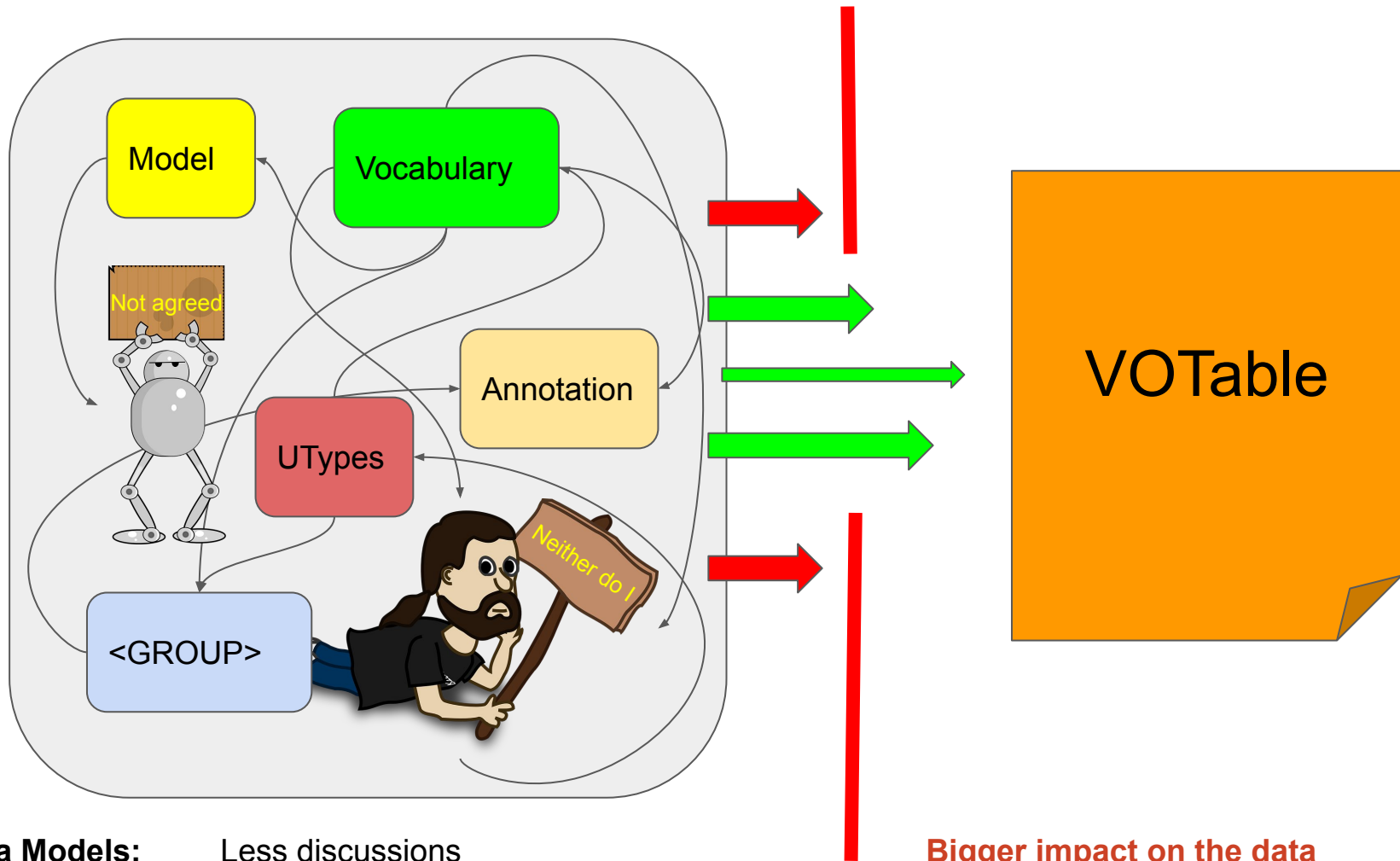  - Start the PR process

**Mapping syntax**

- Write the specification
- Provide validators and parsers
- Start the PR process

# After Workshop Roadmap

**Top Priority:** allowing third persons to exercise the mapping framework
- Providing the mapping syntax with some tooling
- Finalizing component models

| Mapping Syntax | Any other development |
| PhotDM | Mango |
| Meas/Coord | Client Libraries | Cube |

2021       2022 ...

we are somewhere around here

**Data Models:** Less discussions

**Bigger impact on the data**