



4MOST – 4m Multi-Object Spectroscopic Telescope

Schedule beyond proposals and required resources

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www.4MOST.eu



2 topics



- Schedule beyond proposals
- Required resources

Operation and Science Schedule



In 4MOST the operations and science schedule is divided into four phases:

- **Phase 0** – Consortium survey Development
- **Phase 1** – 4MOST Survey Program Development
- **Phase 2** - Observation Preparation
- **Phase 3** - Data Analysis

The important one for this talk is Phase 2:

- **Phase 0** – ends with Call for proposal readiness review
- **Phase 1** – started just before Call for Lols
- **Phase 2** - starts with community joining Science Team
- **Phase 3** - start of Operations

From the schedule plan



Phase 2: Observation Preparation

Community Surveys Join Science Team

Final Optimisation of survey strategy

TRR

Test Readiness Review

PAE

Preliminary Acceptance Europe

OpR4

Operational Rehearsal 4

L2 pipeline acceptance review

5 Year Survey Management Plan

End of Phase 2 (PAC) *Preliminary Acceptance Chile*

From the schedule plan



Phase 2: Observation Preparation

Community Surveys Join Science Team

Dec 2021

Final Optimisation of survey strategy

TRR

PAE

OpR4

L2 pipeline acceptance review

5 Year Survey Management Plan

End of Phase 2 (PAC)

*For Science Team
13 months*



From the schedule plan



Phase 2: Observation Preparation

Community Surveys Join Science Team

Dec 2021

Final Optimisation of survey strategy

TRR

PAE

OpR4

L2 pipeline acceptance review

5 Year Survey Management Plan

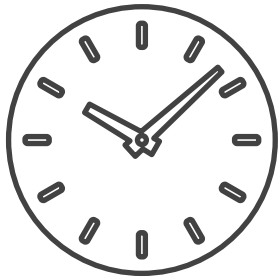
End of Phase 2 (P2)

But schedule changes may occur due to Covid-19

See Roelof de Jong's introductory talk



Phase 2



Community joins ST

Start Operations

Phase 2



Participating surveys joining
the Science Team

Final Phase-2 optimization
round

Estimated time - ~3 months for training purposes

Deliver of the final SMPs
Approval of 4MOST survey
program by the DG

Estimated time - ~9 months for preparing and delivering the final
4MOST survey plan

SMP - Science Management Plan

Phase 2



Participating surveys joining
the Science Team

Final Phase-2 optimization
round

Estimated time - 3 months for training purposes

Be ready for this

Deliver of the final SMPs
Approval of 4MOST survey
program by the DG

Estimated time - ~9 months for preparing and delivering the final
4MOST survey plan

But schedule changes may occur due to Covid-19

SMP - Science Management Plan

Two important concepts



- 4MOST will have a common survey approach
 - ➔ This means collaboration between all participating surveys
- The surveys will produce a common Science Management Plan (SMP)
 - ➔ In that SMP the L2 pipeline deliverables will also be specified

Phase 2 milestones (selected)



- ▶ Community Surveys join the Science Team; marks the start of the development of a common observing strategy; Community Survey team members join selected IWGs
- ▶ Five-year survey strategy plan. Planning and strategy for all Consortium and Community Surveys fully finalized
- ▶ Survey Management Plan
- ▶ Acceptance of level 2 pipelines (IWG4, 7, and 8). They should be ready to be tested and verified on commissioning data
- ▶ Start of Commissioning/OpR4 - starts the critical testing of all science pipelines

Phase 2 deliverables



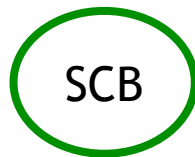
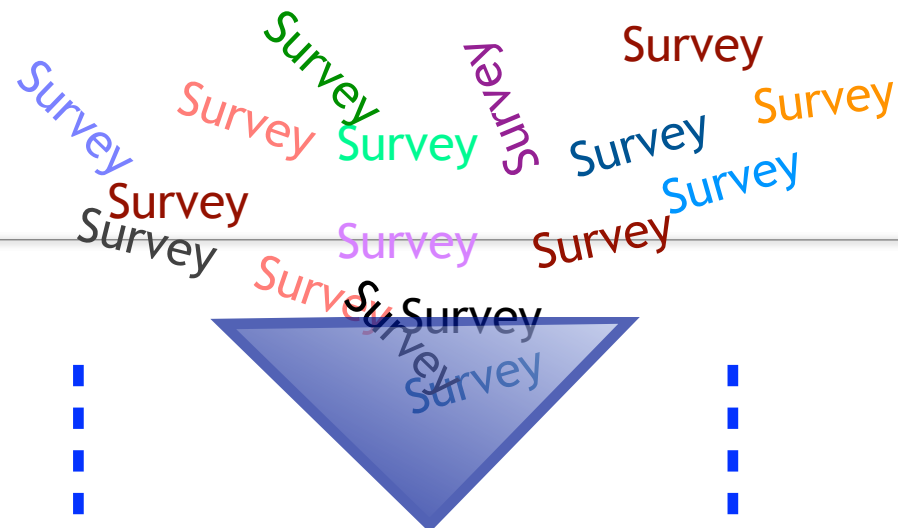
- ▶ Final 4MOST Survey Program
- ▶ Final 4MOST Management Plan
- ▶ Final target list
- ▶ Review reports from Commissioning

The common approach

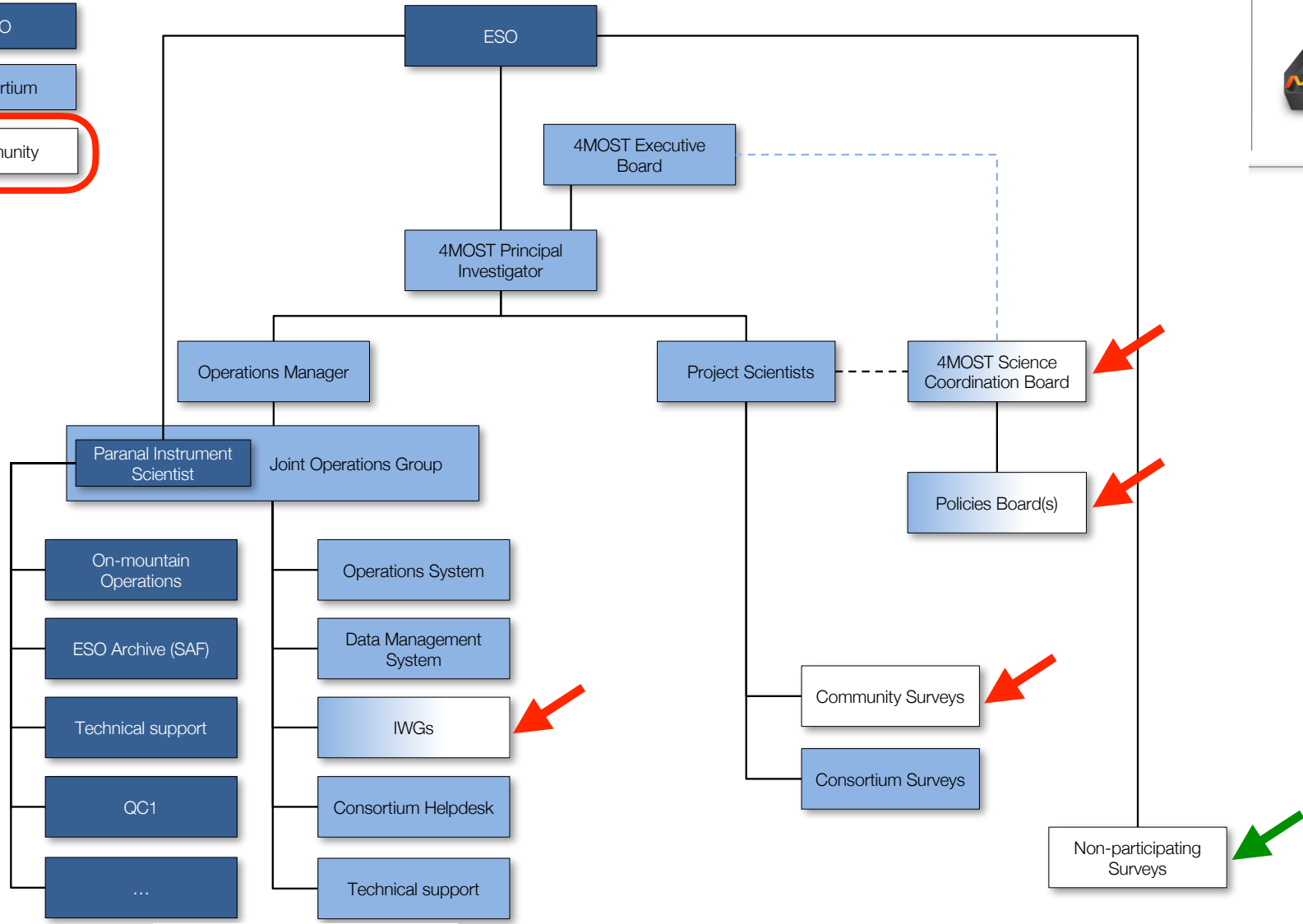


... However, going beyond the efficiency argument, it is the view of both ESO and the 4MOST Consortium that the scientific value of the 4MOST survey programme as a whole will be larger than the sum of its constituent parts. Therefore, the integrated approach should be extended beyond planning and operations to the dataset itself as well as its scientific exploitation. This is the reason why the 4MOST scientific community has decided not to view itself as a collection of individual, disparate and disjoint survey teams, but rather to come together in a single 4MOST Science Team that will collectively plan, execute and exploit the 4MOST survey programme in a collaborative manner. ...

from Science Team Policies



- How is it organised?



Operations

Science

Why should community surveys join the science team?



- There is a great number of tasks to be carried out in 4MOST that requires the coordination and participation of all surveys
- Some tasks can only be done together - Survey Strategy
- But also to make the most of everybody's (limited) resources other tasks have been pooled

Infrastructure working groups



- Work for the benefit of the full 4MOST survey
- All surveys must contribute to survey strategy (IWG2) and selection function (IWG4)
- You are invited to join Level 2 pipelines as well (IWG7 and IWG8)

Required resources



- Need own internal resources to develop your survey, make catalogues, and do non-standard analysis (if planned)
- Need resources to work in the infrastructure working groups; also in operational phase
- Need to sustain these commitments over the full 5 years survey

How much resources?



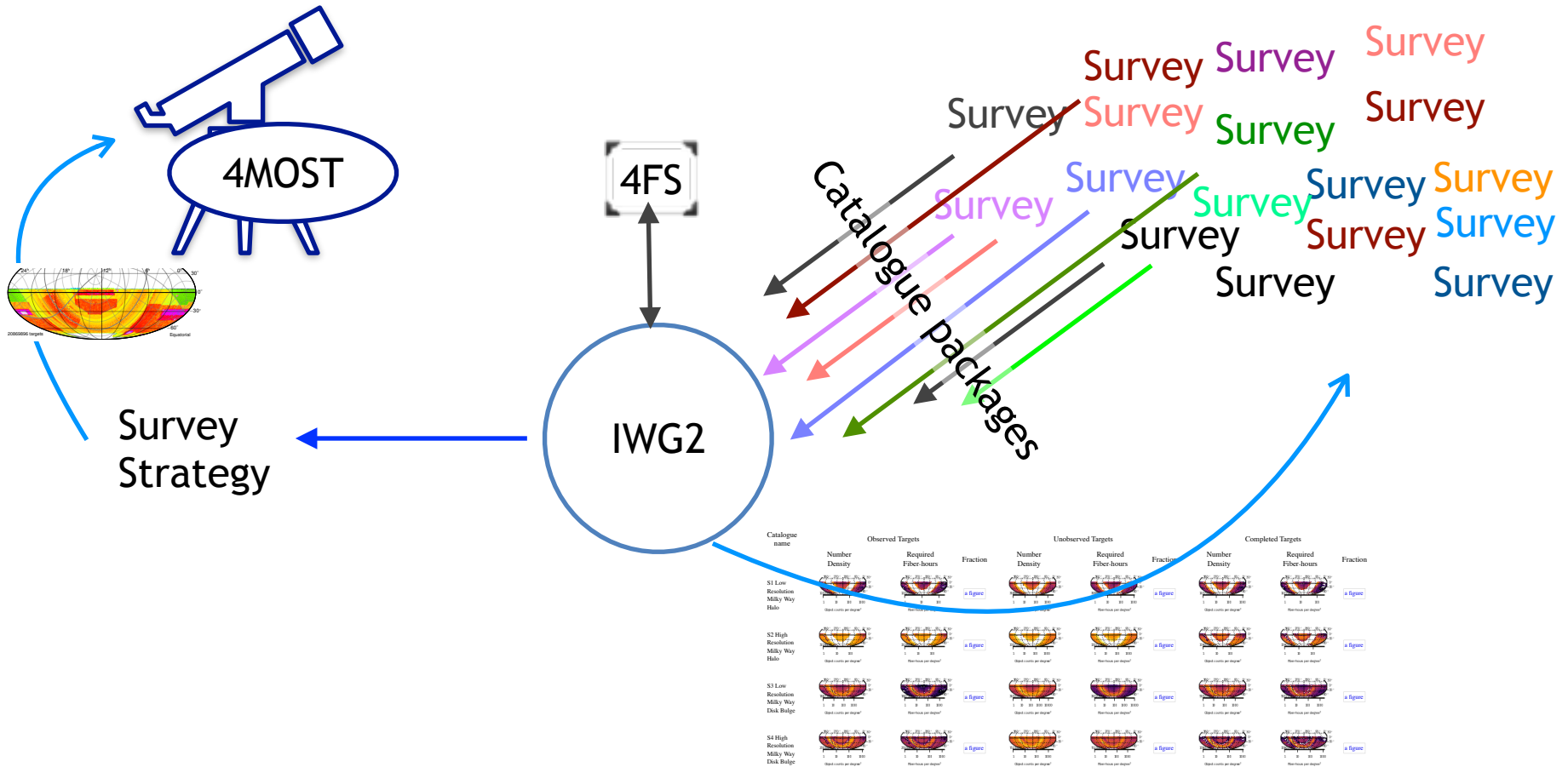
- The ST policies says 2 FTE/survey for the common efforts, including operations
- If we have a large number of participating surveys this might go down a bit, but you will still need to have about 1-2 FTE/year for the full 5 years for the common efforts
- Work in IWG2 and IWG4 can not just be seen as liaison, real work will be needed

Is there a list of what resources are needed?



- No, we do not have such a list
- Follow the presentations of the IWGs and see where you believe your team may have specific expertise to offer
- Consider also that there is a need of more hands on deck for these activities, therefore offer of effort that can be spent where needed is highly relevant

Example resources - Survey Strategy

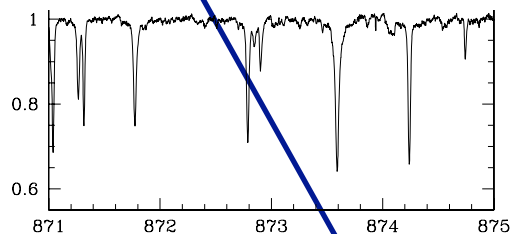




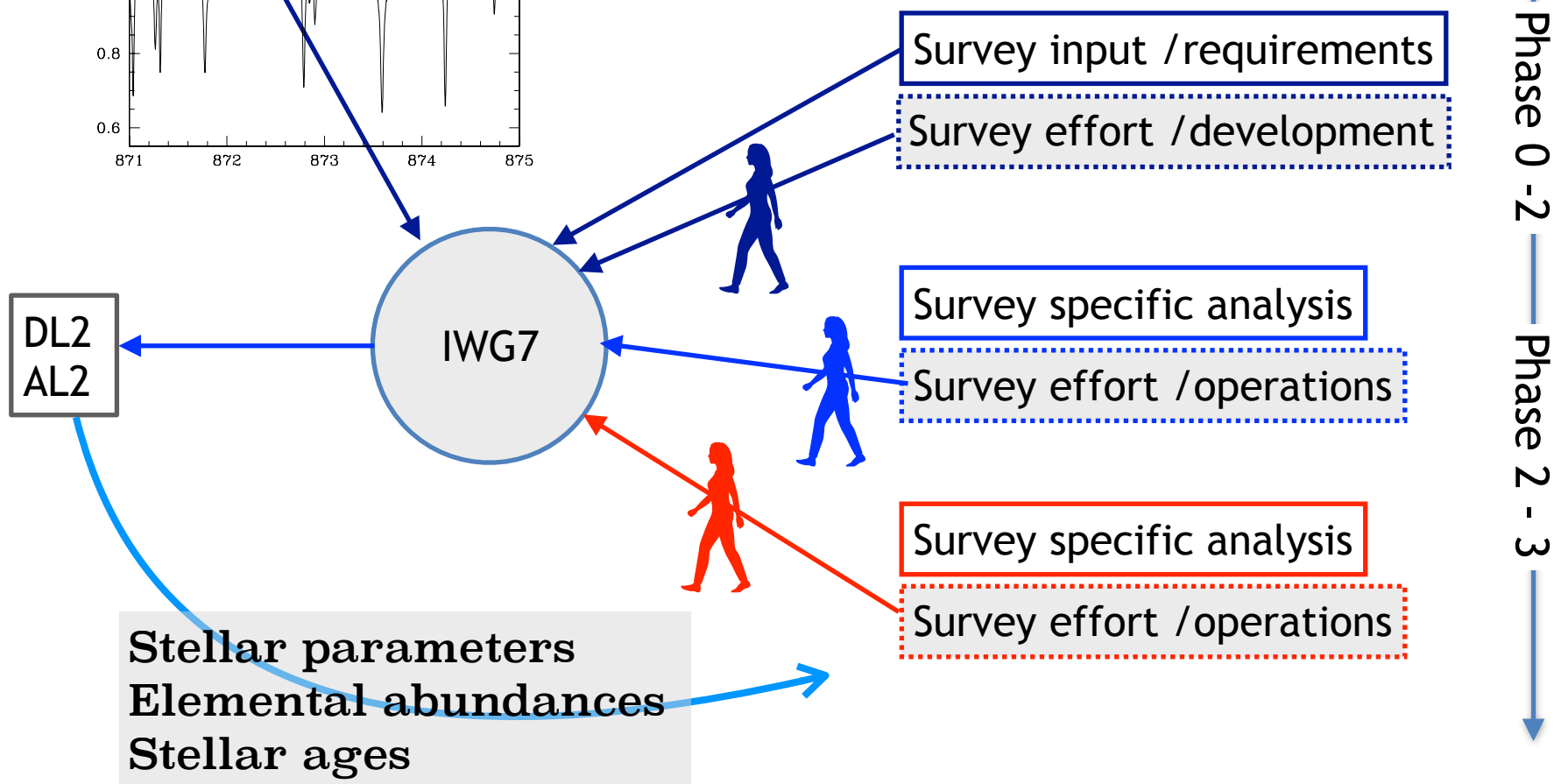
Example resources- IWG7/4GP



1D spectra



Consortium and community surveys



2 topics



- Schedule beyond proposals - clear when you join Science Team, beyond that schedule updates are on-going
- Required resources - 2 FTE/year/survey, with many surveys perhaps somewhat reduced
- Learn about the work in the IWGs and find out where your efforts would be of best use

