eFEDS+eRASS Planning.
Report of Cluster WG

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Cluster working group

FTE, X-rays

- X-ray: 9 FTE (presentation by Dominique)
  - Background model: 2 people 0.5 year prior to eFEDS + 4 people, 0.5 year after, 2 from background WG=3FTE – completed in 2019
  - Modelling: 4 people in 2019 (new hires+outsourcing 1 to Daisuke Nagai) = 4FTE - completed in 2019
  - Mass proxies: 2 people, 0.5 year starting with eFEDS=1FTE in 2019, continue in 2020 with 4 people. Complete in 2020.
  - Catalog production ¼ year, 4 people=1FTE – delay the end of eFEDS to acquire resources by ¼ year (March 2020), eRASS1+2 = ½ year in 2020, complete by Sep. 2021.
- Proposal to allocate 15 FTEs by end of eRASS2. Demanding. Outsourcing on modelling. Strategic planning within MPE. Add X-ray people at Bonn.

Optical ID

- 3 FTEs are requested (Matthias talk) to extend the cluster identification to low mass systems
- Larger FTE request for SDSS-V and 4MOST underway, starting 2020
- 3 people are available (2MPE, 1 LMU)
- Recommendation is to maintain this at this level. Potentially adding experience on dynamical mass calibration to help other packages.
- This implies 9 FTE by the end of eRASS2.
- Teach them X-ray stacking (Ghazaleh knows already) to beef-up HSC projects
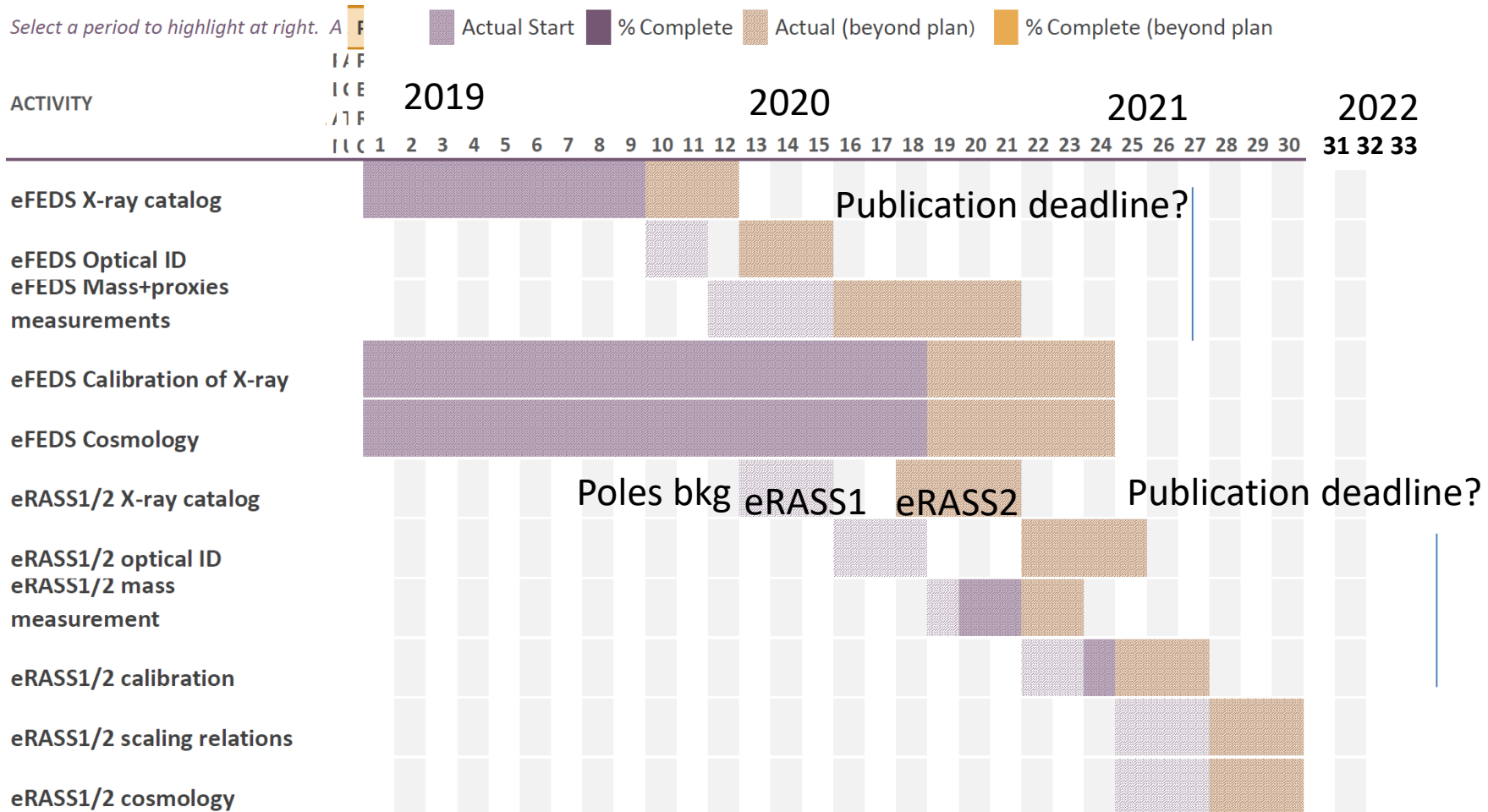
Lensing

- 12 FTEs requested (presentation of Tim). 2.5 years to final production, 2 people at Bonn, 2 at MPE, 1 at USM, =12.5 FTE by the end of eRASS2
  - Outsourced on eFEDS
  - Assume required uncertainty prior to completion of the work
  - Provide calibration of eRASS2 using eRASS1 catalog in order to reduce the delivery time for the main cosmology project
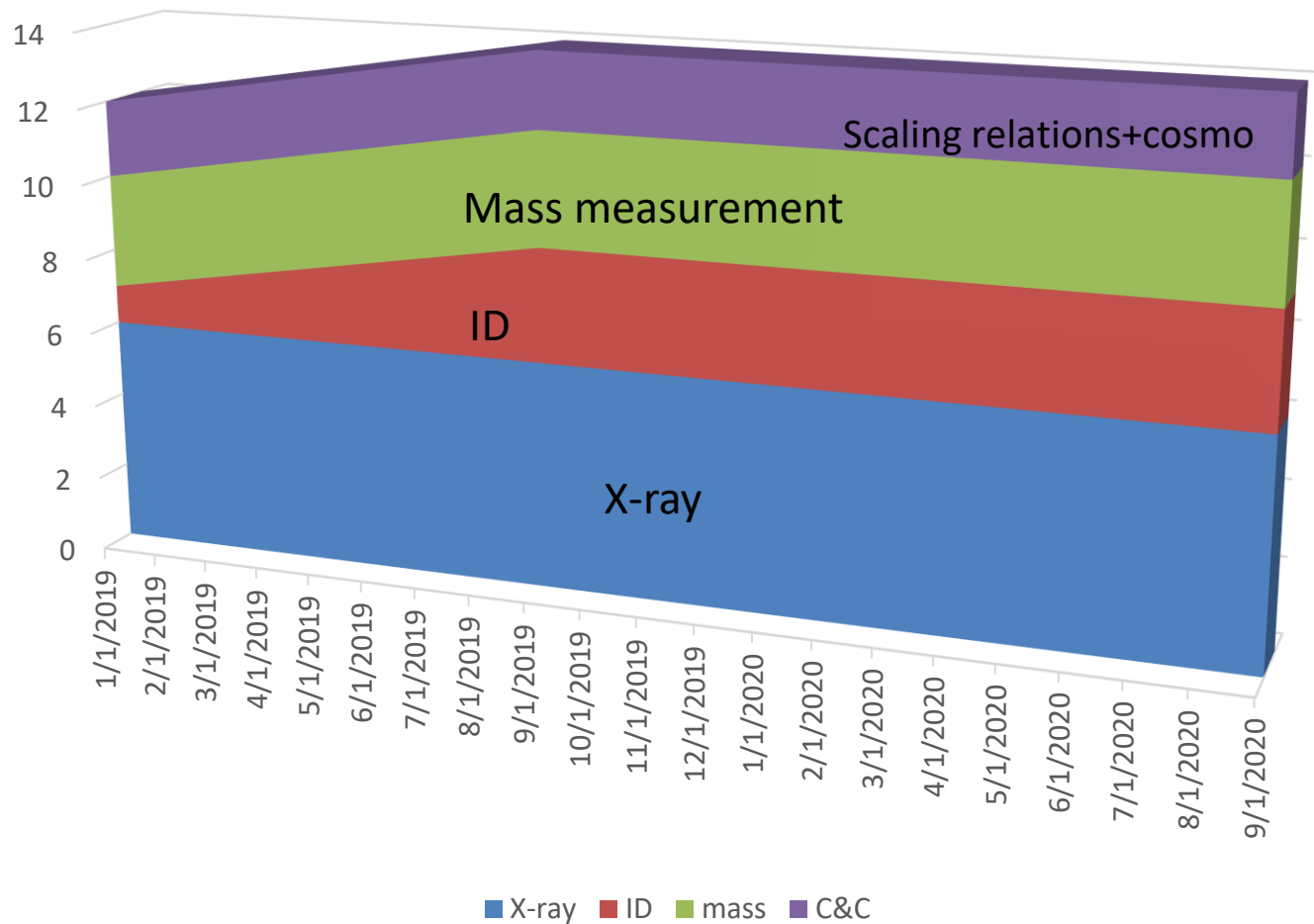
Scaling and cosmology

- 5 FTE are requested (Sebastian's talk)
- 2.5 years to delivery.
- Likely need 2 people in parallel (USM?)
- Proposal to outsource 1 FTE (e.g. EC to Steffen Hagstotz), ask Jochen Weller to contribute
- Proposal to allocate 10 FTE within 2.5 years (by completion of eRASS2)

Project Planner

	Actual Start	% Complete	Actual (beyond plan)	% Complete (beyond plan

ACTIVITY	2019	2020	2021	2022
	1 2 3 4 5 6 7 8 9	10 11 12 13 14 15 16 17 18 19 20 21	22 23 24 25 26 27 28 29 30	31 32 33
eFEDS X-ray catalog		Publication deadline?		
eFEDS Optical ID				
eFEDS Mass+proxies measurements				
eFEDS Calibration of X-ray				
eFEDS Cosmology				
eRASS1/2 X-ray catalog	Poles bkg eRASS1 eRASS2	Publication deadline?		
eRASS1/2 optical ID				
eRASS1/2 mass measurement				
eRASS1/2 calibration				
eRASS1/2 scaling relations				
eRASS1/2 cosmology				

Proposed of manpower distribution

FTE

Scaling relations+cosmo

Mass measurement

ID

X-ray

Legend: X-ray | ID | mass | C&C

eROSITA, CWG, 10/2018

Conclusions

Performance of the key project will likely take all the resources available at CWG. But this is doable.

Favorite scheme: eFEDS+eRASS2, with eRASS1 used for training the calibration

revised publication deadlines:

eFEDS – mid of 2021 (2 year after data taking)

eRASS2 – end of 2022 (2 year after data taking)