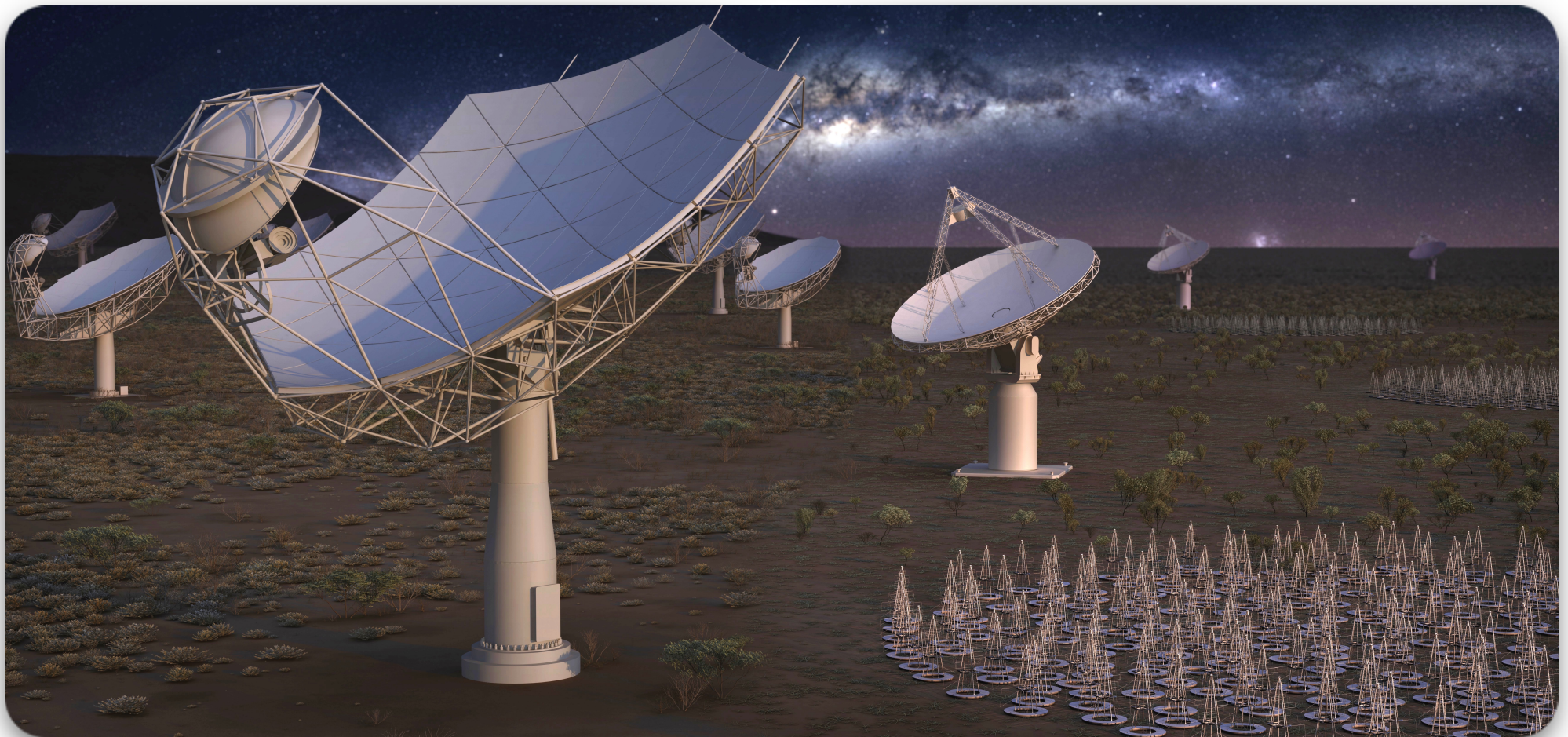
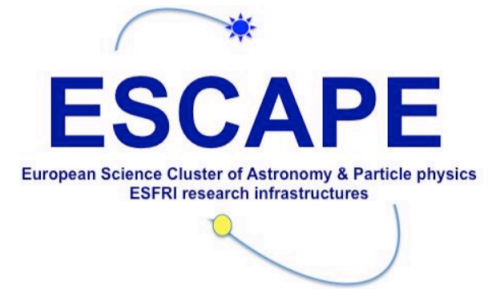


SKA in ESCAPE

Project status and participation



 www.skatelescope.org

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Dr Antonio Chrysostomou
Head of Science Operations Planning

 @astroant

SKA Project Status

Current and future schedule

SKA Participation in ESCAPE

WP involvement and staffing plans

SKA Phase 1



One Observatory (SKA) Two Telescopes (LOW, MID) Three Sites (AUS, RSA, UK)

Construction Cost Cap: €691M (2017)

Construction: 2020 - 27, Science Commissioning: 2022 →

SKA1-LOW

512 × 256 low-frequency dipoles

50 - 350 MHz

65 km baselines

(11" @ 110MHz)

Murchison, Western Australia



SKA1-MID

133 × 15m + 64 × 13.5m dishes

0.35 - 15 GHz

150 km baselines

(0.2" @ 1.7GHz, 0.034" @ 15 GHz)

Karoo, South Africa



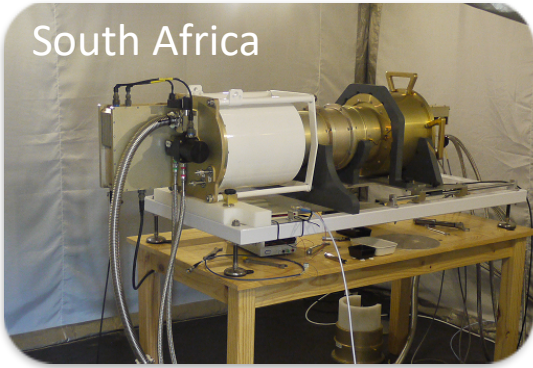
CDR Status



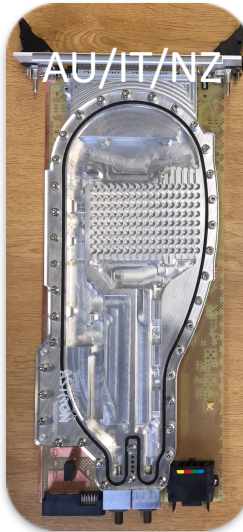
Element	RRN Submission	CDR Submission	CDR Meeting	CDR Close
TM	29 January 2018	28 Feb 2018	17-20 Apr	14 Jul 2018
SaDT & SAT	17 January 2018	28 Feb 2018	15-18 May 2018	Jan2019
INAU	19 March 2018	30 April 2018	27-29 June 2018	Dec 2018
INSA	19 March 2018	30 April 2018	2-4 July 2018	Jan2019
CSP	18 May 2018 -PSS Element CDR -PST Element CDR -CBF Low -CBF Mid	30 Jun 2018 (includes LMC sub-element)	25-28 Sep 2018	Jan 2019
MeerKAT Integration	-		22 Oct 2018	31 Dec 2018
SDP Pre-CDR	09 Mar 2018	25 Apr 2018	20-22 Jun 2018	<u>29 Mar 2019</u>
SDP CDR	17 Sep 2018	31 Oct 2018	15-18 Jan 2019	
LFAA re-planned	15 Oct 2018	05 Nov 2018	11-13 Dec 2018	<u>28 Feb 2019</u>
AIV	Oct 2018	30 Nov 2018	<u>04 Mar 2019</u>	<u>30 Mar 2019</u>
DSH Pre-CDR	17 Sep 2018	28 Sep 2018	26-27 Nov 2018	<u>26 Nov 2019 (w</u>
DSH CDR	<u>23 Aug 2019 (w</u> <u>B2)</u>	<u>13 Sept 2019 (w B2)</u>	<u>25-29 Oct 2019 (w B2)</u> <u>(Dish Structure: Aug</u> <u>2019)</u>	<u>B2)</u>
System CDR			<u>Nov 2019</u>	<u>Feb 2020</u>

Prototyping

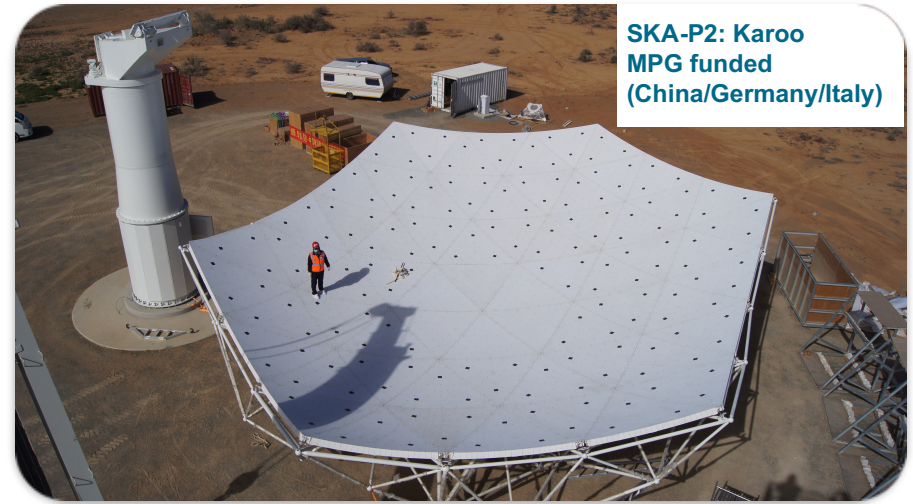
South Africa



AU/IT/NZ



SKA-P2: Karoo
MPG funded
(China/Germany/Italy)



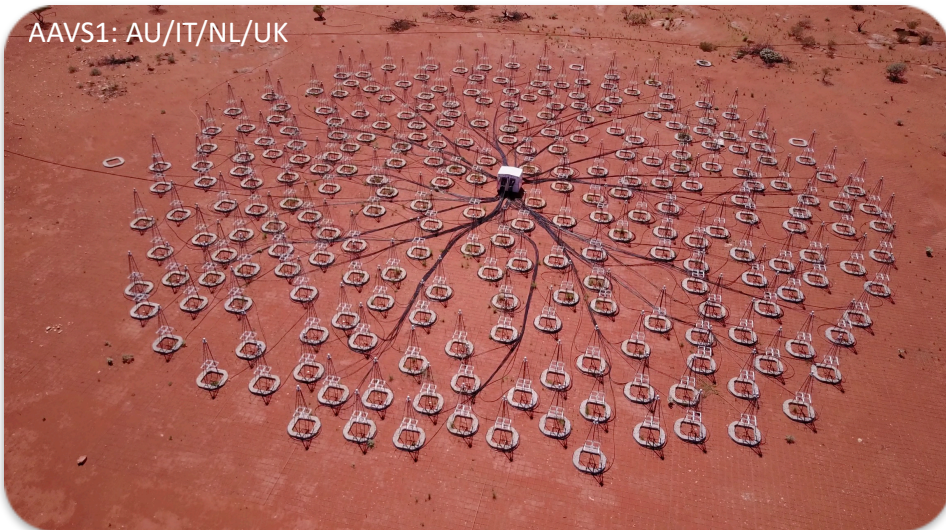
Sweden



India/UK/South Africa



AAVS1: AU/IT/NL/UK



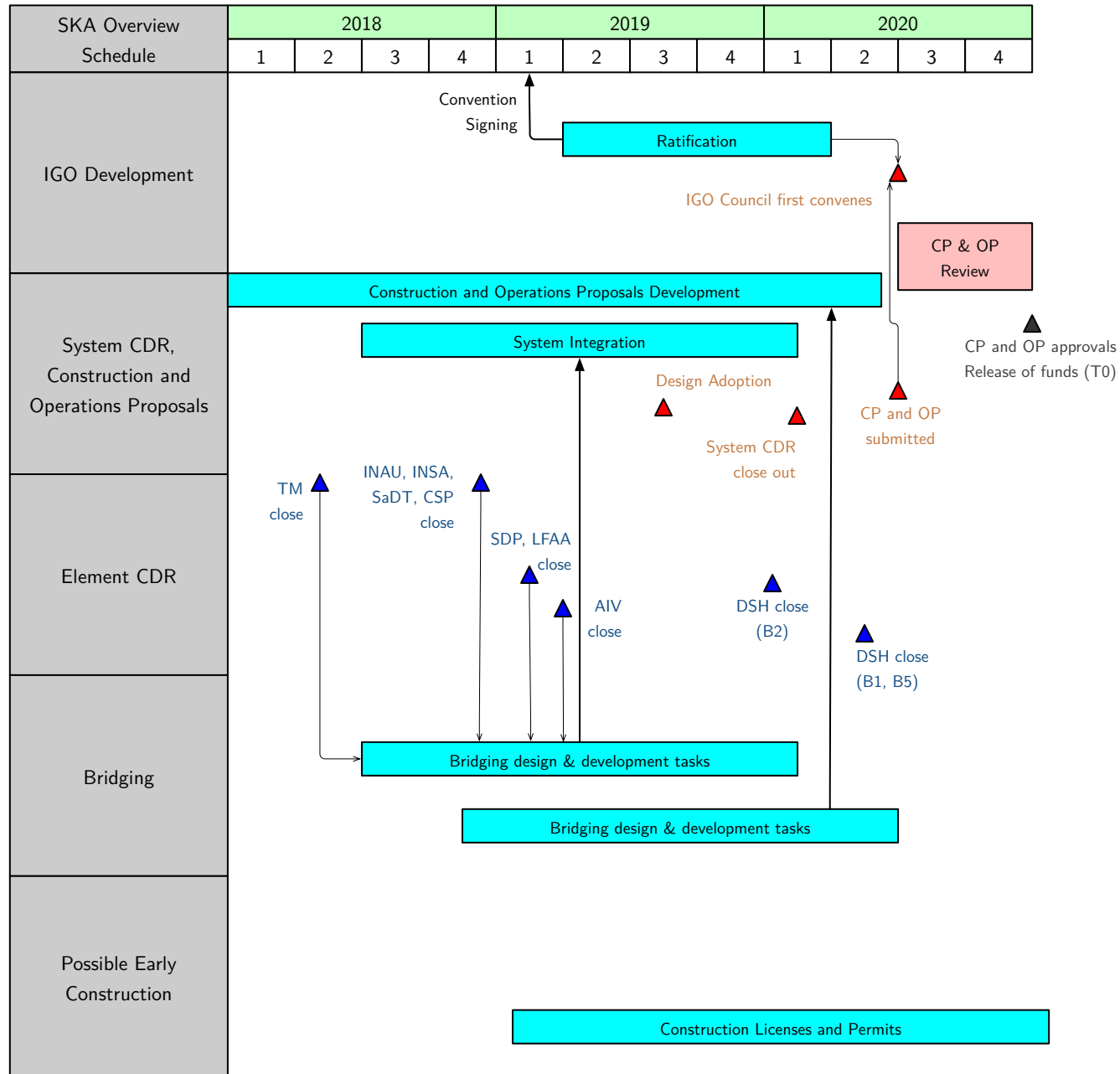
Italy



Canada



SKA Project Schedule





Establishing treaty organisation similar to ESO and CERN

Text and key protocols of treaty now finalised and agreed

Ministerial-level signing ceremony in Rome on **12 March 2019**

Treaty ratification ~ 12 months later

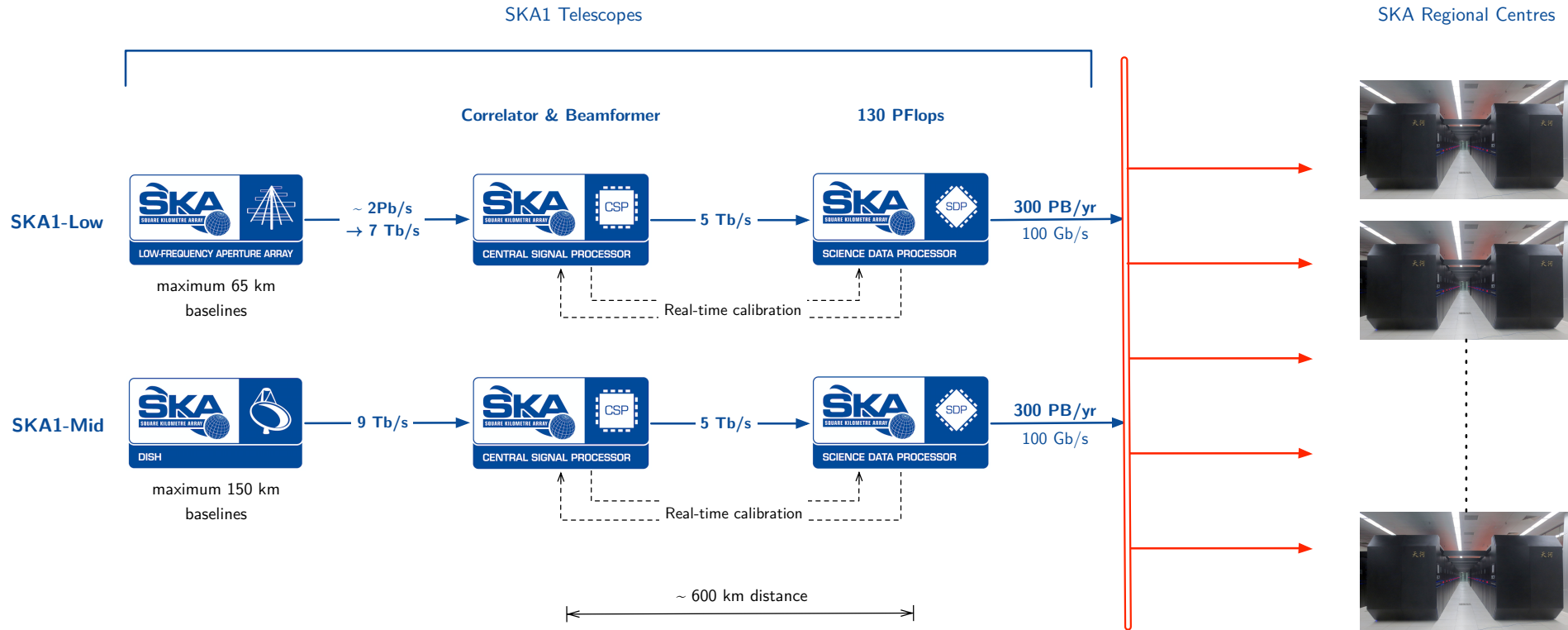


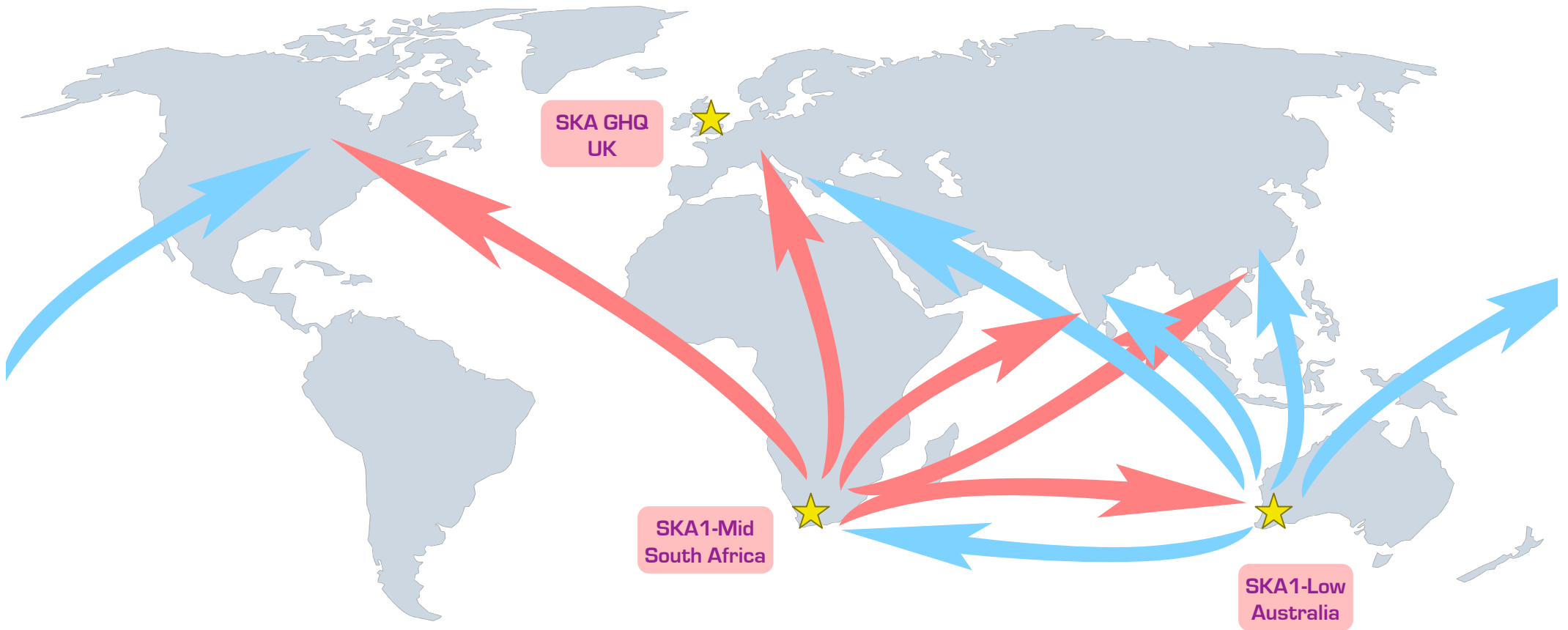
ESCAPE

European Science Cluster of Astronomy & Particle physics
ESFRI research infrastructures

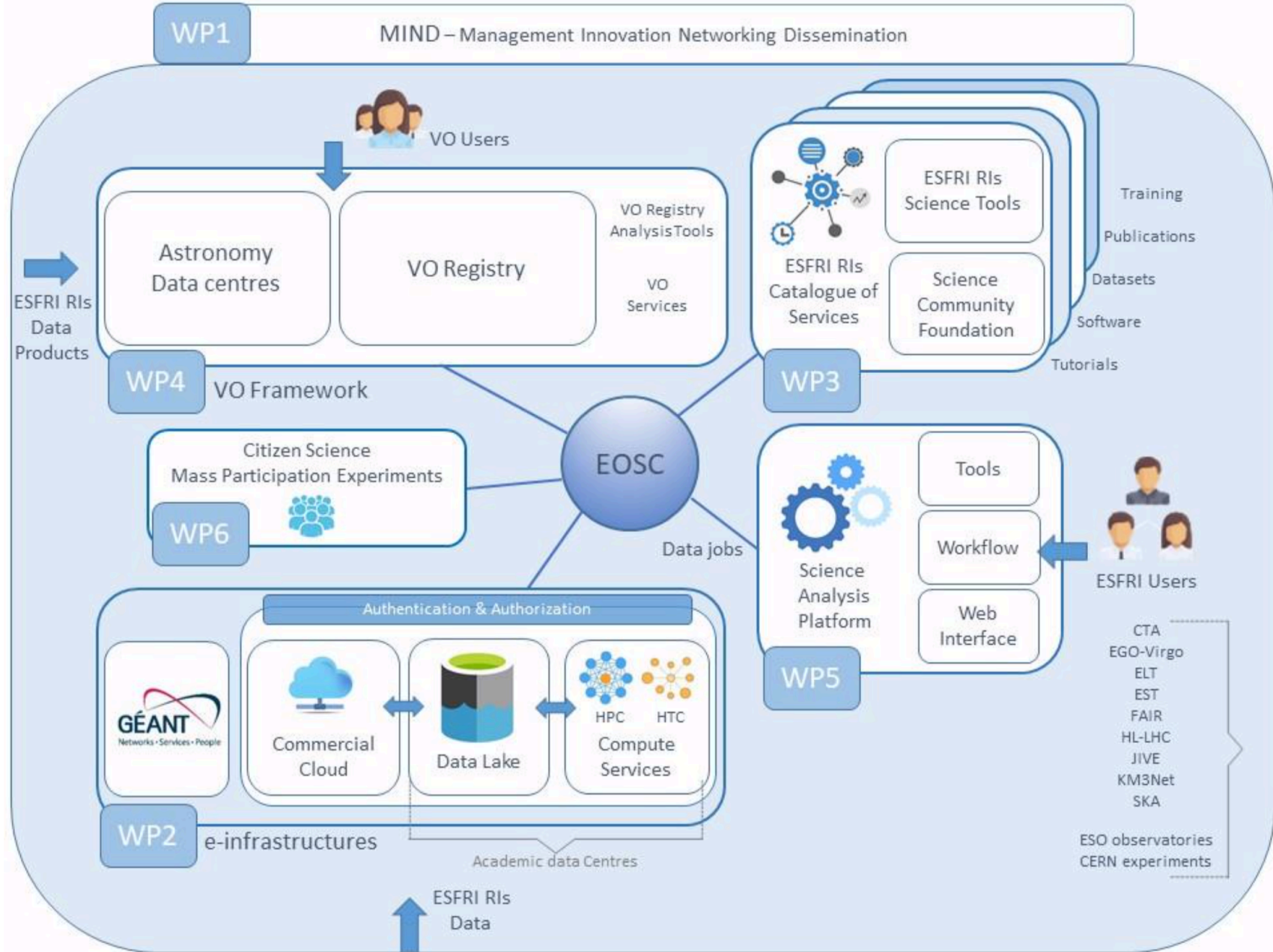


Data flow challenges





ESCAPE in a Nutshell



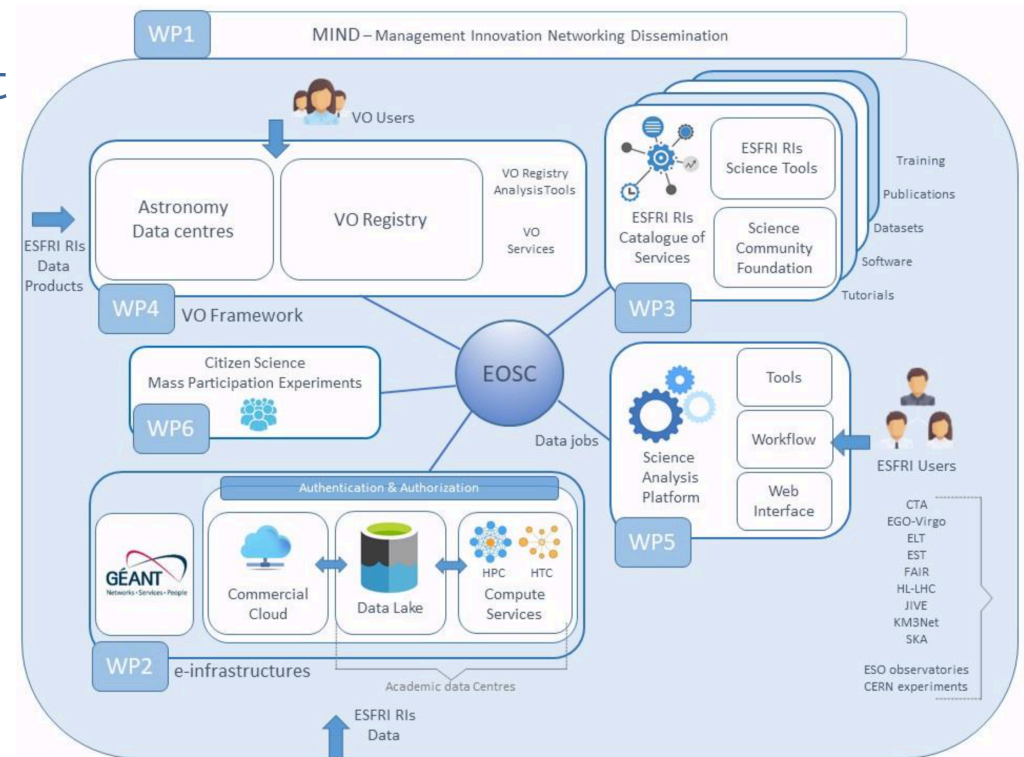
SKA Participation in ESCAPE



With the EOSC at its centre,
ESCAPE is largely an EU focussed project

SKA work in ESCAPE will be with a
global outlook

- how will ESCAPE help to solve the challenges we face of a global and collaborative community?



This is similar to objectives of other
partners in the ESCAPE project

SKA Participation in ESCAPE



	Tasks			PM
WP1				-
WP2	2.2	2.4	2.5	36
WP3	3.2			12
WP4	4.1	4.2	4.3	12
WP5	5.1	5.3	5.4	24
WP6				-
				84

Primarily focussed on WP2 ("data lakes") and WP5 ("science gateway") with more prominent roles in these areas while providing support to WP3 ("software") and WP4 ("VO")

However, details of participation have yet to be discussed and agreed

SKA Participation in ESCAPE



ESCAPE project has duration of 42 months (3.5-yr)

- 84 person-months allocated to SKA Organisation \Rightarrow 2 FTE over the project

SKAO business plan includes support to hire 3 FTE over the course of the project

- allows us to be well resourced to ensure ESCAPE deliverables
- maintain our ongoing effort in developing global and collaborative SKA Regional Centre network

	2019	2020	2021	2022	PM
ESCAPE					84
Person 1	9	12	6	6	33
Person 2	9	12	6	6	33
Person 3	3	6	6	3	18
SKA					48
Person 1			6	6	12
Person 2			6	6	12
Person 3	3	6	6	9	24

Contacts

Exec Board / General Assembly: Antonio Chrysostomou

SKA Work Package lead: Rosie Bolton

Administrative contact: Simon Berry