

## CTA project phases and resources

comments to the table in the next slide:

- (1) Future years correspond to my personal estimation, there is no official time schedule yet.
- (2) Core costs: These numbers are defined by the council, based on costs estimates of the PO
- (3) Transitional measures by SBFI: As CTAO is a research infrastructure like Cern, ESS or ESO, construction and operation fraction of CH is financed directly through the SBFI. Due to several reasons the start of the construction was delayed, therefore SBFI provided additional means to bridge the gap between the end of the FLARE funding and the start of the official construction.
- (4) Operation cost fraction for each member country will be defined in the ERIC regulations.
- (5) Scientific exploitation: Both the participation in the Key Science Projects (KSP) and the individual observation proposals need to be financed (mainly salaries). This has not been discussed yet, but I would assume, that a natural financial source would be regular SNF requests and local University grants.

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<b>Phase</b>	<b>Organisation</b>	<b>Years (1)</b>	<b>Activities</b>	<b>CORE costs (2)</b>	<b>Swiss contr. to CORE [source]</b>	<b>Local Swiss activities [Source]</b>
pre-construction	Project Office Dol / FP7	before 2014	R&D	Run project office	25 k€ operation cost [FLARE]	R&D and Prototypes of SST-1M, software, AMC, FlashCam [regular SNF, FLARE, SINERGIA, local University grants]
	GmbH	2014 - 2017	R&D, prototyping	Operate GmbH, 2.5 M€ / y	2% (Minimum), 50k€ / y [FLARE]	
	GmbH / ERIC	2018 - 2020	Complete System design, CDR, Start infrastructure construction, create ERIC	2.7 .. 5 M€ / y	2% (Minimum), 53k .. 100k€ / y [SBFI transitional measures (3) ]	Prototype evaluation, documentation, reviews. [SBFI transitional measures]
Construction	ERIC	2021 - 2025	Telescope construction and installation Early science	250 / 400 M€ total construction costs	7.3 M€ of which 25% cash: MoU. [SBFI:parliament decision 2016]	Construction guided by CTA project management.
Operation	ERIC	2026 - 2056	Observatory operation	>= 20 M€ / y (full project is assumed)	Fraction to be determined, [SBFI (4) ]	Scientific exploitation through KSP and individual obs. programs. [tbd (5) ]

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