

AAMID Costs

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Approach

- What can we do for 1 Billion euro?
- Many uncertainties in the requirements
- Both costing and power consumption depend on
 - Architecture
 - Procurement date
 - Scaling
- Extrapolation is quite dangerous

Capital costs

- Design 4:
 - 1 m² tiles
 - 10,000 m²/K at 1 GHz
 - 0,125m antenna pitch
 - $T_{\text{rec}} = 30 \text{ K}$

Compute costs

- Compute costs: estimated OPS/s (Rik)
- Price per TFLOP from SDP SKA1
 - Assuming a Moore's law period of 24 months up to 2020 and 36 months after 2020.
- For the moment, ignoring Rik's warning:
 - Note: be careful when comparing SDP computing with the others:
 - SDP has more expensive floating-point operations
 - Energy cost in the desert is likely higher

Cost overview (2025)

	Deployment costs	
Frontend	355,0 M€	
Receiver	28,4 M€	
Processing		
Station	266,0 M€	
CSP	46,7 M€	
SDP	192,6 M€	
Infra	75,0 M€	
Data transport	15,0 M€	
Telescope manager	10,0 M€	
AIV	5,0 M€	
Total	993,7 M€	Including synchronization

All costs estimated by AAMID team