

# Organisation du Follow-up en France

A priority identified at the very beginning of SVOM.

Many science cases. Two extremely important for the CP:

- Afterglow localization.
- Redshift determination.

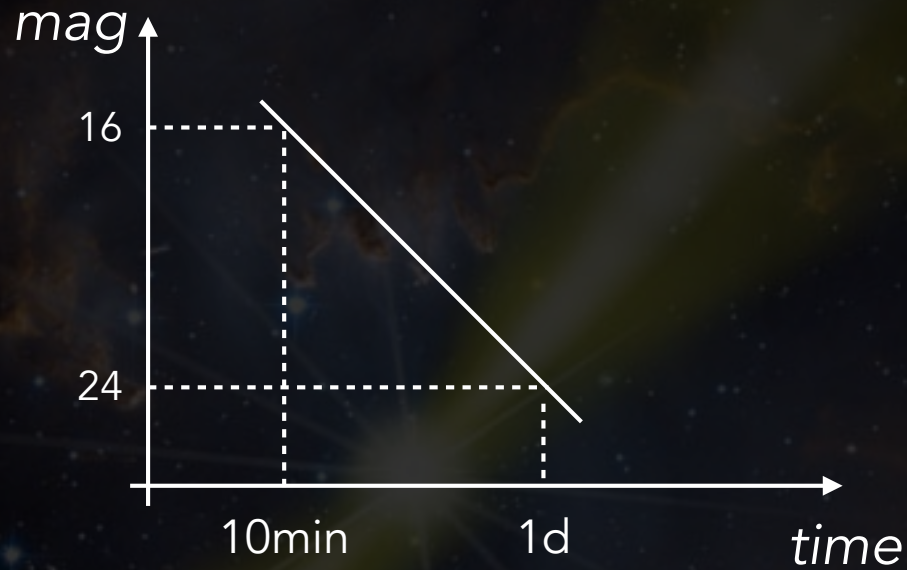
Our strategy:

- Relying on scientific/technical teams that are well recognized in the field of transient sky: an efficient way to reinforce our scientific expertise.
- Associate large telescopes ( $> 1\text{m}$ ) to complete the Chinese coverage.
- And above all, access to spectroscopy!

Since the beginning, we have targeted very precise facilities to avoid dispersion: facilities/scientists that will have a real impact.



Need: Rapidity + small & large telescopes



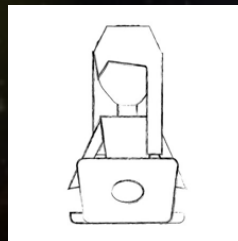
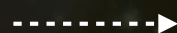
SVOM Alert



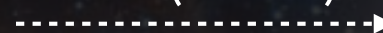
RRM or robotic (few minutes)



Sec

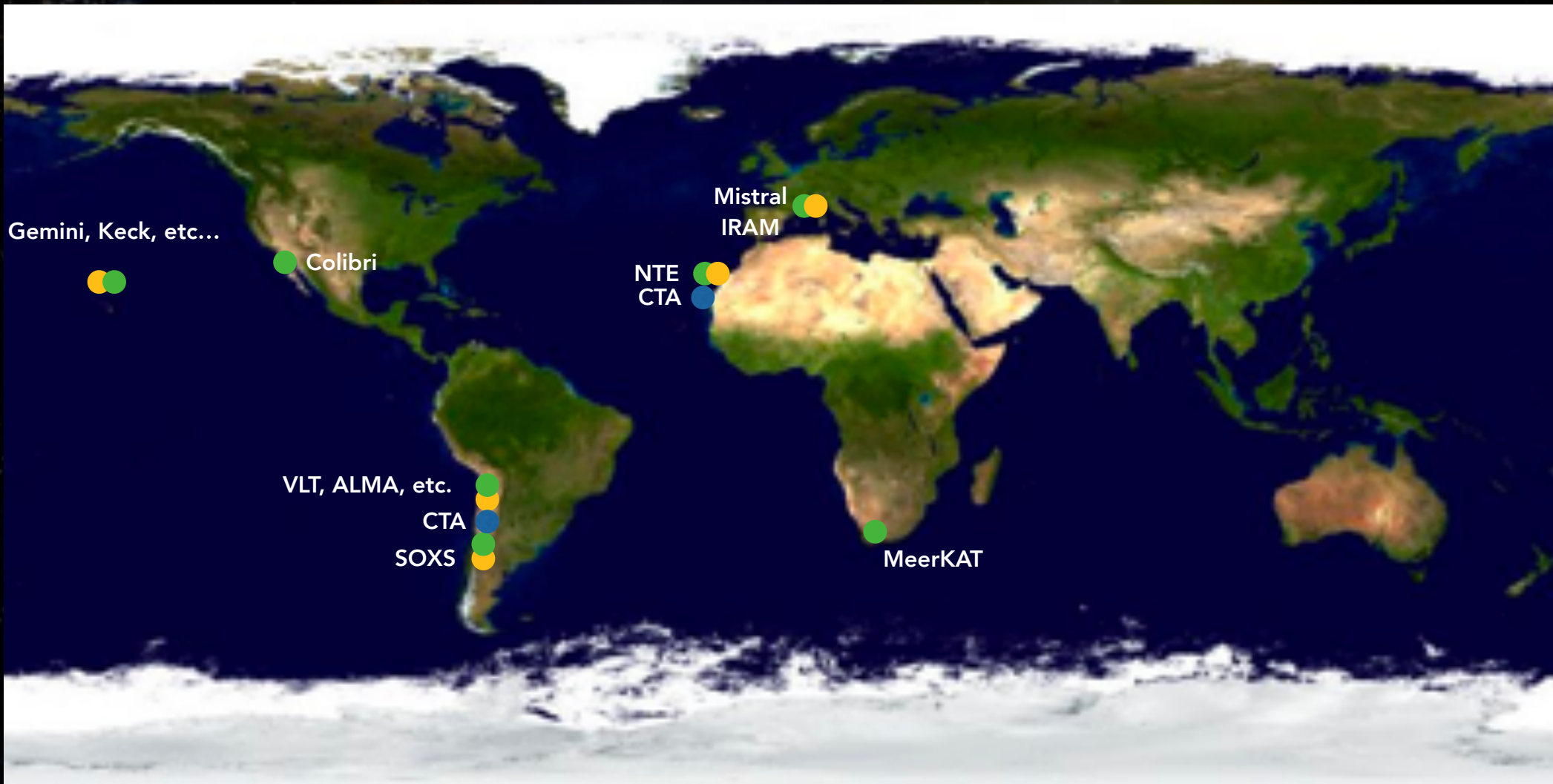


ToO (hours)



Observations





● Photométrie

● Spectroscopie





A new dedicated robotic telescope :

- Delay between the reception of an alert and the beginning of an observation : <20 sec.
- Diameter of the primary mirror: 1.3 m (1.315 in fact!).
- Three simultaneous arms :
  - FoV: 26 arcmin.
  - Visible range: B-bands to SDSS z.
  - Infrared range: up to H-band.

Institutional partners: AMU, CNRS and CNES in France; UNAM and CONACyT in Mexico.





## Spectro-Imager on T193 (2021) 350–950 nm

New spectro-imager in the visible domain:

- Will be installed on the T193 (OHP, France).
- First tests started in July 2020.
- Development financed and piloted by OHP and LAM (P.I.: C. Adami).

Open to the scientific  
community for 2021B.





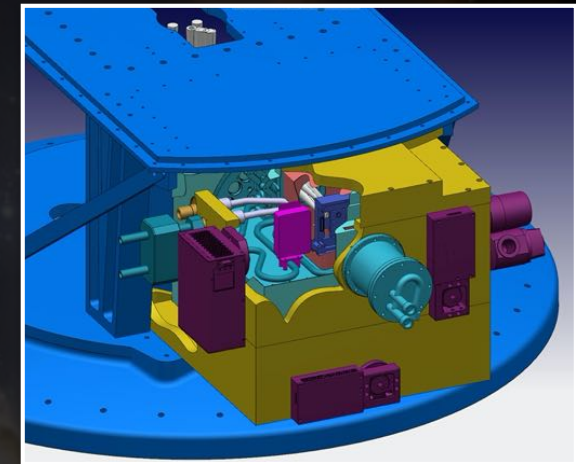


Spectro-Imager on NOT (2021)  
320–2200 nm

New spectro-imager from visible to infrared:

- Under development.
- Will be installed on the NOT (Canary Islands, 2.4m diameter).
- Development drives by the Danish (PI: J. Fynbo).

Agreement: 80 nights offered  
on the NTE.





Spectrograph on ESO NTT (2022)  
350–2000 nm,  $R \sim 4500$

- SoXS consortium will be entitled to 50% of the available time of the NTT
- Transient spectra machine
- Nominal duration : 5 years
- GRB follow-up is among the topics covered by the SoXS consortium observations

Ongoing discussion to have some SVOM people inside  
and SVOM GRB observed



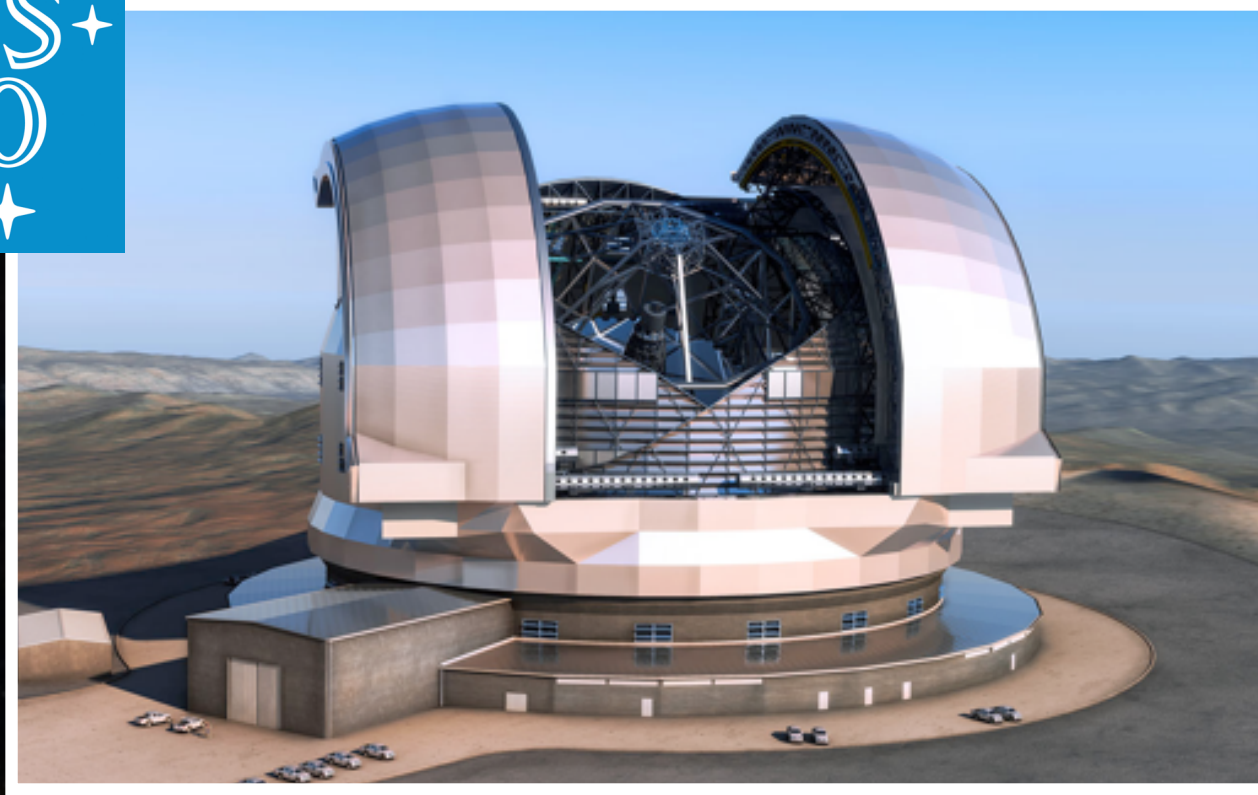


**Stargate:** >50 people; Large Programme @ ESO/VLT

S.D. Vergani Co-PI

some SVOM members Co-Is

Ongoing discussion for US telescopes as well (S. Basa)



ELT: Only for pre-selected very high-redshift candidates  
(Photometric redshift / SOXS / VLT)



## Multi-messenger (GW)



>250 people (GW); LP @ ESO/VLT

<http://www.engage-eso.org/>

S.D. Vergani member of the executive committee  
some SVOM members Co-Is



ALMA  
IRAM



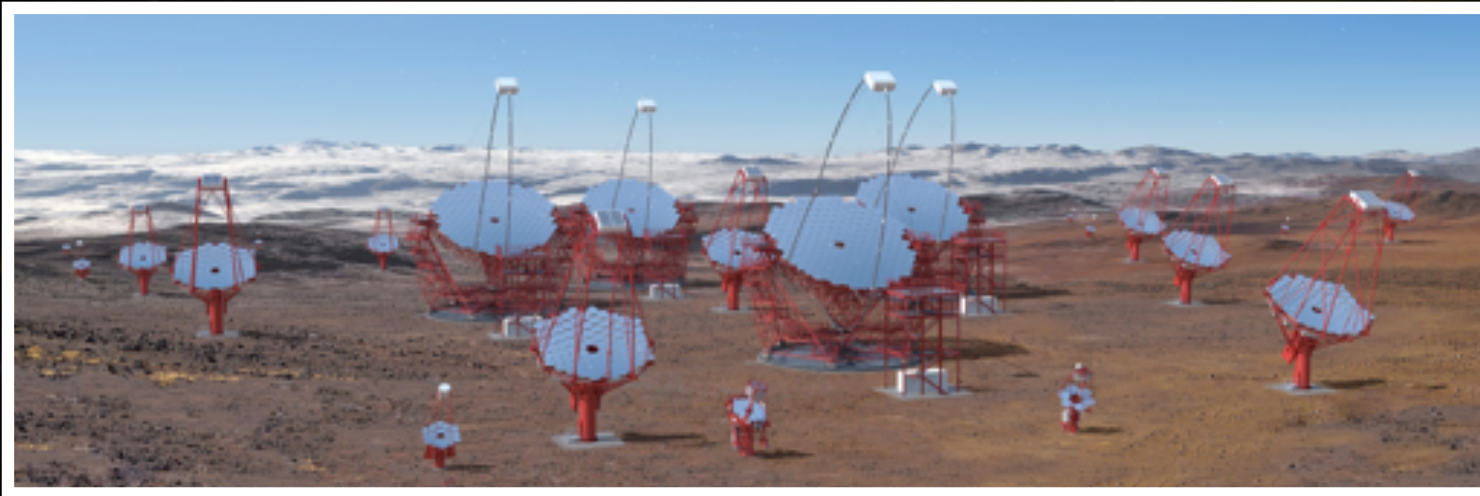
Some researchers inside SVOM are very expert of such observations  
SVOM focused proposals once SVOM will be on the sky

SKA precursor  
MeerKAT



S.D. Vergani and F. Daigne member of the KSP for transients (ThunderKAT)





## CTA

GRBs part of the Consortium GTO  
French researchers (including SVOM ones)  
inside the Transients/MWL WG of CTA

A very ambitious program is being implemented:

- Clear view of our needs: we are already able to cover a large part of them.
- A real support from our institutional partners (in the priorities of INSU).

French researchers outside the GRB community are joining, but manpower is never enough!