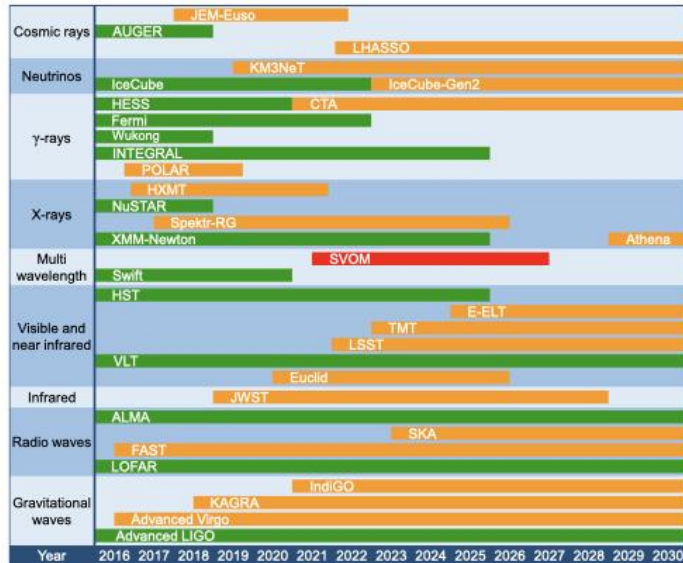


ToO x Colibri²

D.Dornic - C. Lachaud - F. Schussler

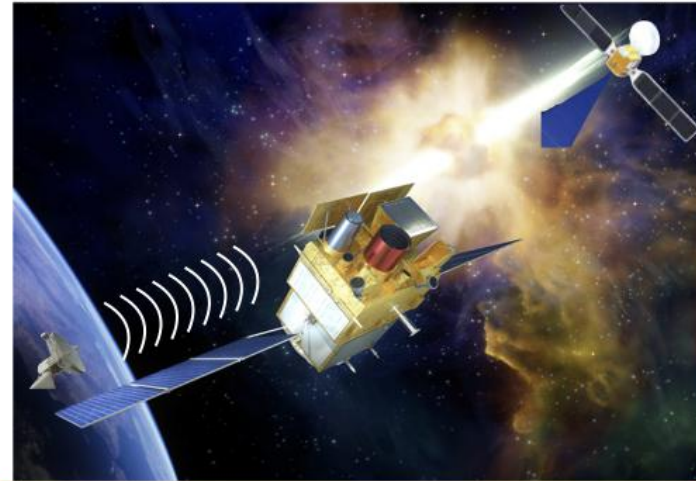
THE SVOM ToO PROGRAM

Transient/event detected
by other facilities



Target of Opportunity program

=> send commands to the satellite
to trigger observations from the
ground (via Beidou or S-band station)

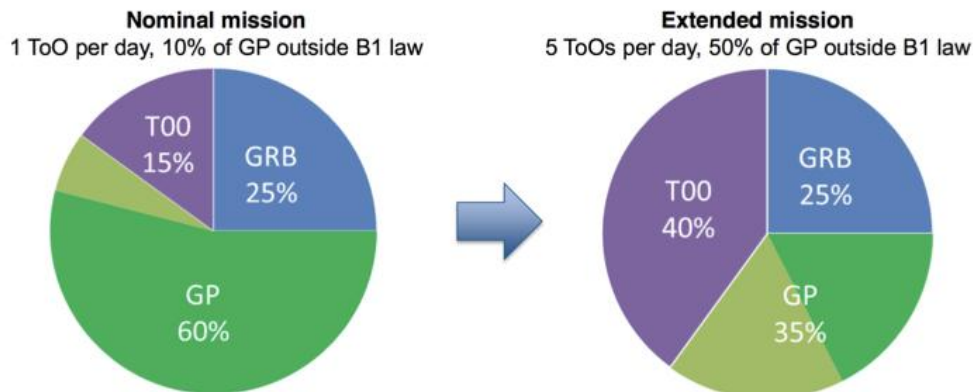


Complex operations at system level



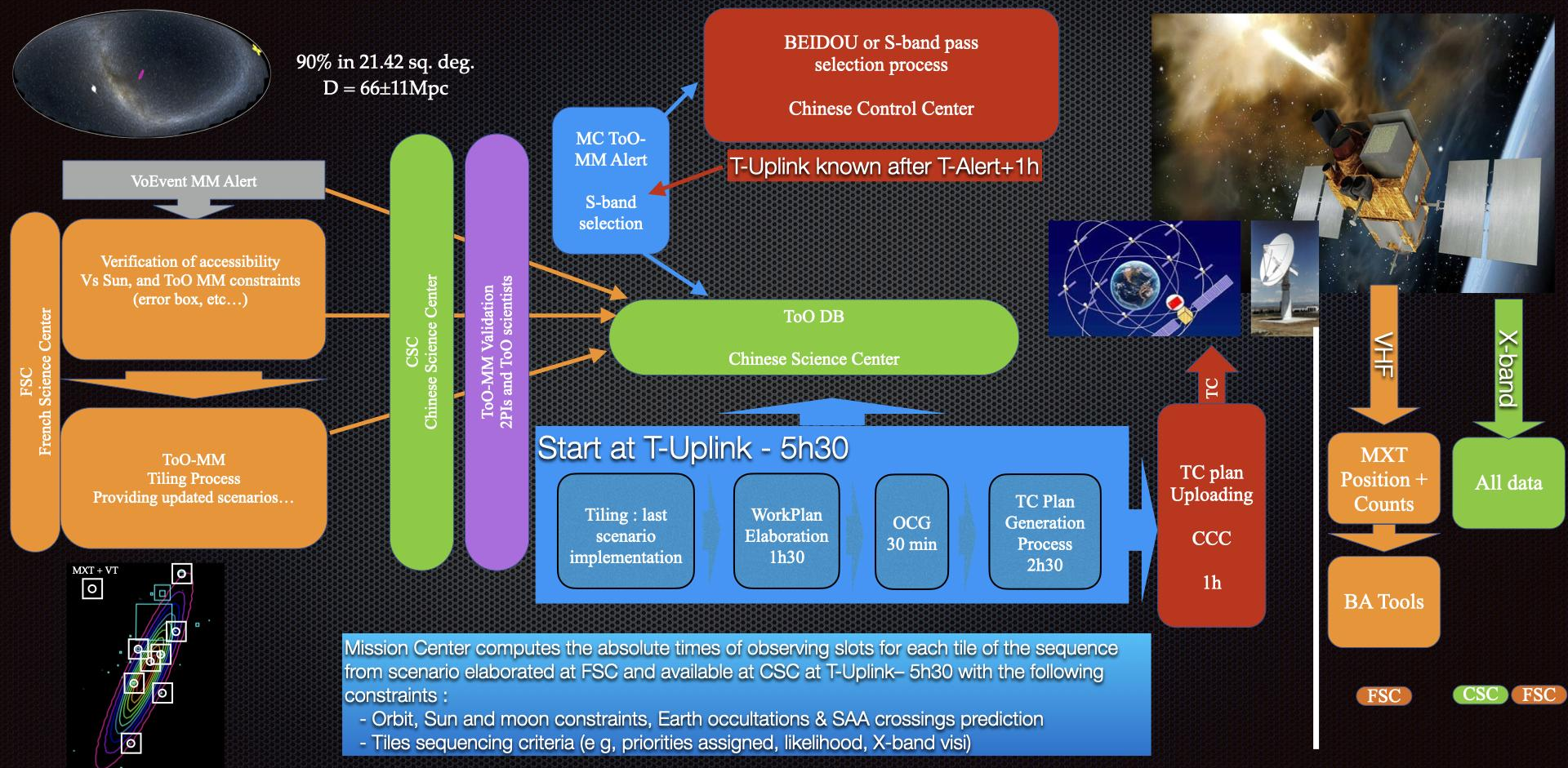
SVOM TOO OBSERVATION PROGRAM

Target of Opportunity (ToO) program : alerts sent from the ground to the satellite.



ToO	Approval	Delay	Interrupt GRB obs. ?	Frequency	Duration	Tiling	VHF data	Science product availability
ToO-NOM	ToO scientists	<48h	No	1 (5) / day	1 orbit	No	No	24h
ToO-EX	PIs/ToO sc.	<12h	Yes	1/month	14 orbits	No	No	24h
ToO-MM	PIs/ToO sc.	<12h	Yes	1/week	7-14 orbits	Yes	MXT	VHF < 1h X-band : 24h

The ToO-MM programming loop & data flow



ToO : TRANSIENT SKY COMMUNITY

ToO Data policy

There are three possibilities :

- ToO initiated by SVOM : the scientific products are private*
- ToO triggered by external facilities/user : the scientific products are public immediately*
- In case a MOU has been signed : refer to the specific policy*

In the past years we have significantly increased the SVOM ToO capabilities, in particular to deal with the multi-messenger revolution.

We focused the work on the space operations... we now have to discuss the links with Colibri



Colibri & SVOM General Program

Is it possible to apply for an observation for MXT-VT + Colibri (Combined observations) ?

For the proposal, subscriber must enter details on the Colibri strategy.

If the TAC accepts the proposal :

Who fills the Colibri web page to enter the observation strategy ?

GP Manager at the OCG meeting planning the given observation ?

How to connect the different scientific products from Space instruments and Colibri ?

Which scientific products from Colibri : reduced images or SP ?

Colibri & SVOM ToO Program

As for GP, can we perform Time constrained ToO-NOM with Colibri ?

Difference with GP :

- 1) 48h before observation
- 2) ToO-NOM must have a time constrained compatible with Colibri availability
- 3) Request a Colibri observation on the Time of the ToO-NOM through a VOEvent (priority)

Colibri & SVOM ToO Program

ToO-EX

Same as ToO-NOM but on short timescale and higher priority

Colibri & SVOM ToO Program

ToO-MM

Coordinated observation workplan (tiling) built at FSC to be sent to Colibri, C-GFT, GWAC, F60...

VOEvent has already been used in O2-O3 run efficiently. We plan to discuss the format with Colibri team.

Colibri Policy

SVOM will benefit from 45% of Colibri observation time.

CoreProgram : OK.

GP : Colibri member in TAC to accept specific GP observations.

ToO : are triggered with external facilities, Colibri will listen independently... how to decide if an observation is Colibri alone or SVOM/Colibri ?

SVOM ToO triggered by Colibri ?