



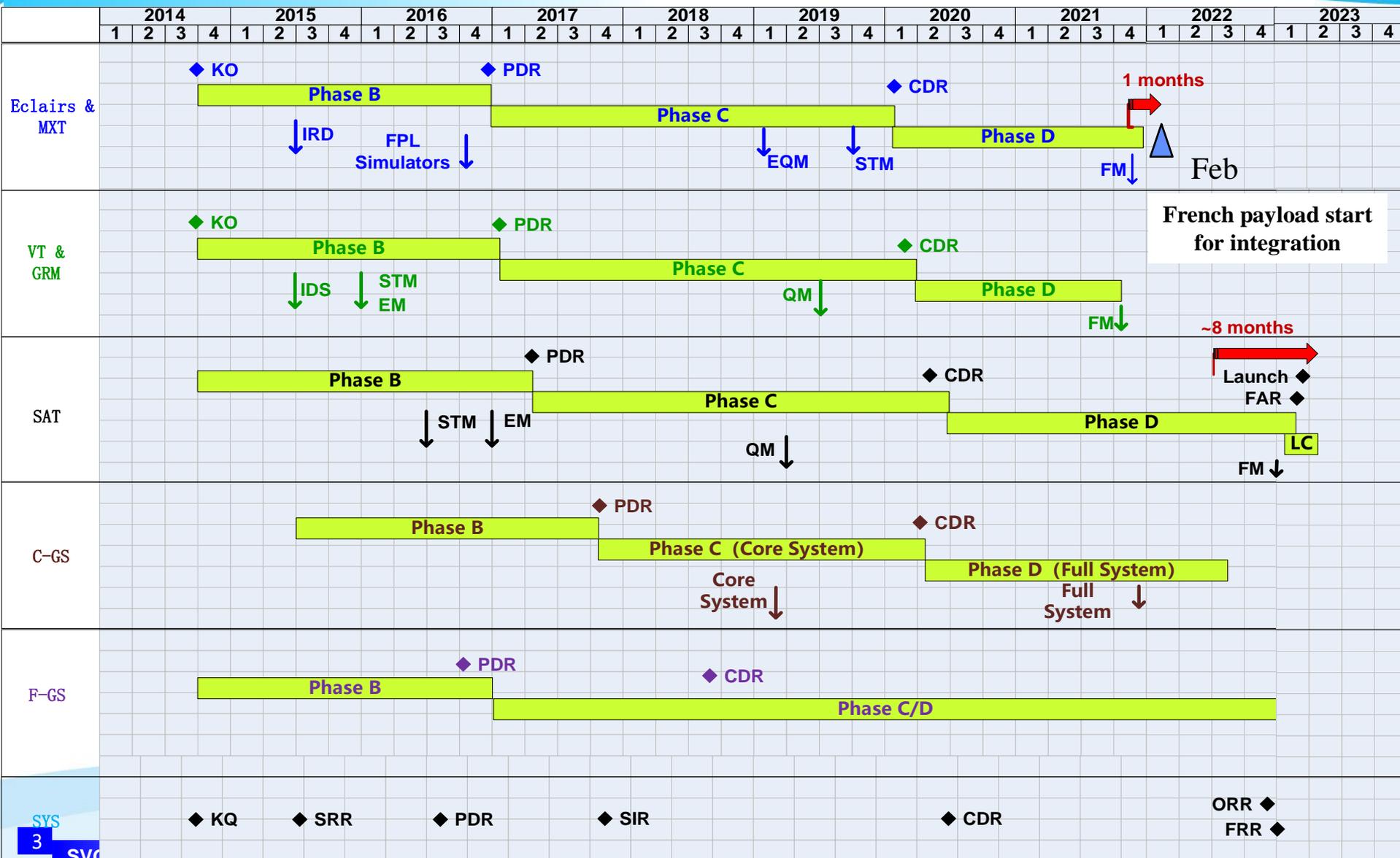
Retour sur le SVOM System Progress Meeting 22-23 juin 2021

Bertrand



- Mise à jour du planning de la mission – décalage de la date de lancement à février 2023
- Officialisation de l'utilisation de Beidou sur SVOM

Master Schedule---new plan (2021, 6)



Phase D Plan—2021

Simulator

manufacture

FPL Simulator delivery: 2021.7

SL Simulator delivery: 2021.9

FM Units

Units manufacture

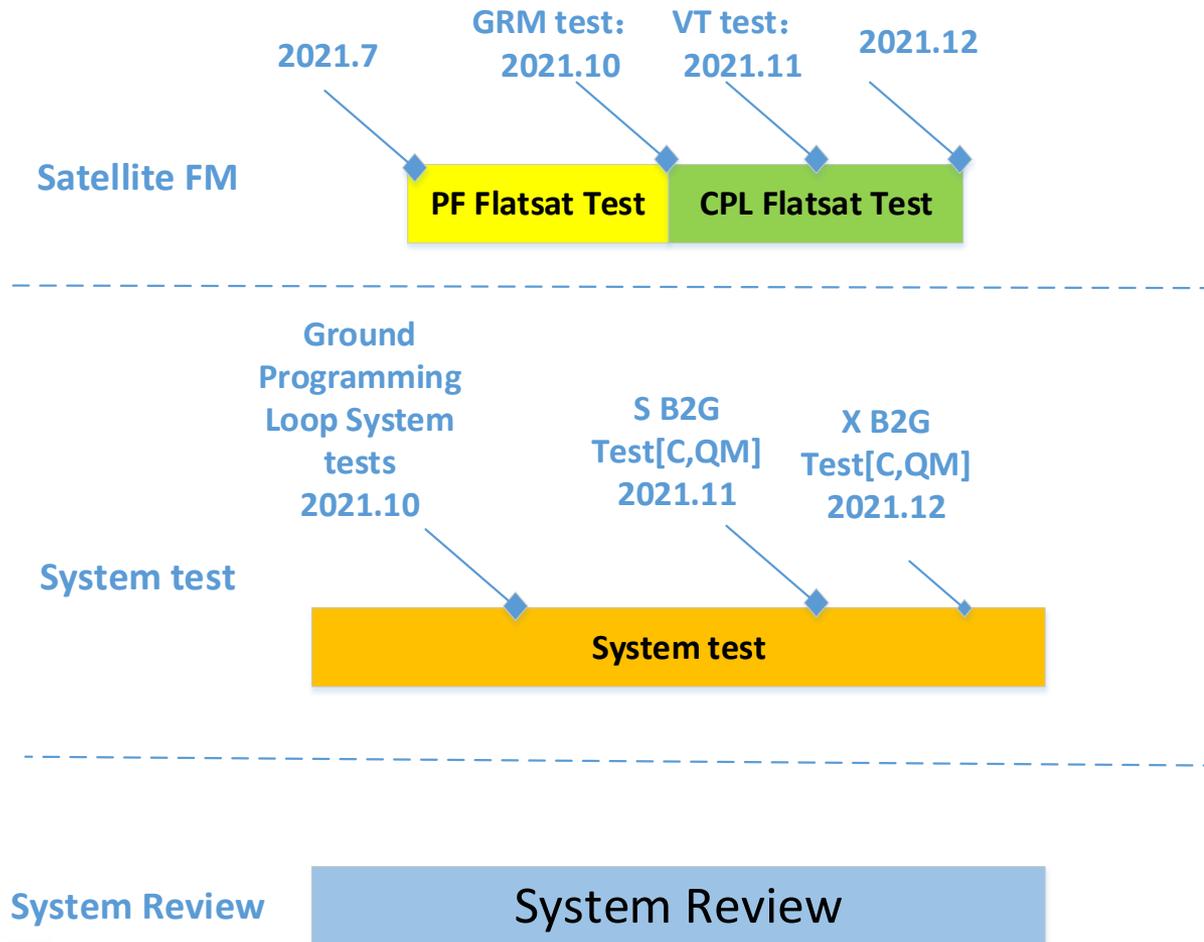
PF units delivery: 2020.10~2021.12

GRM delivery: 2021.9

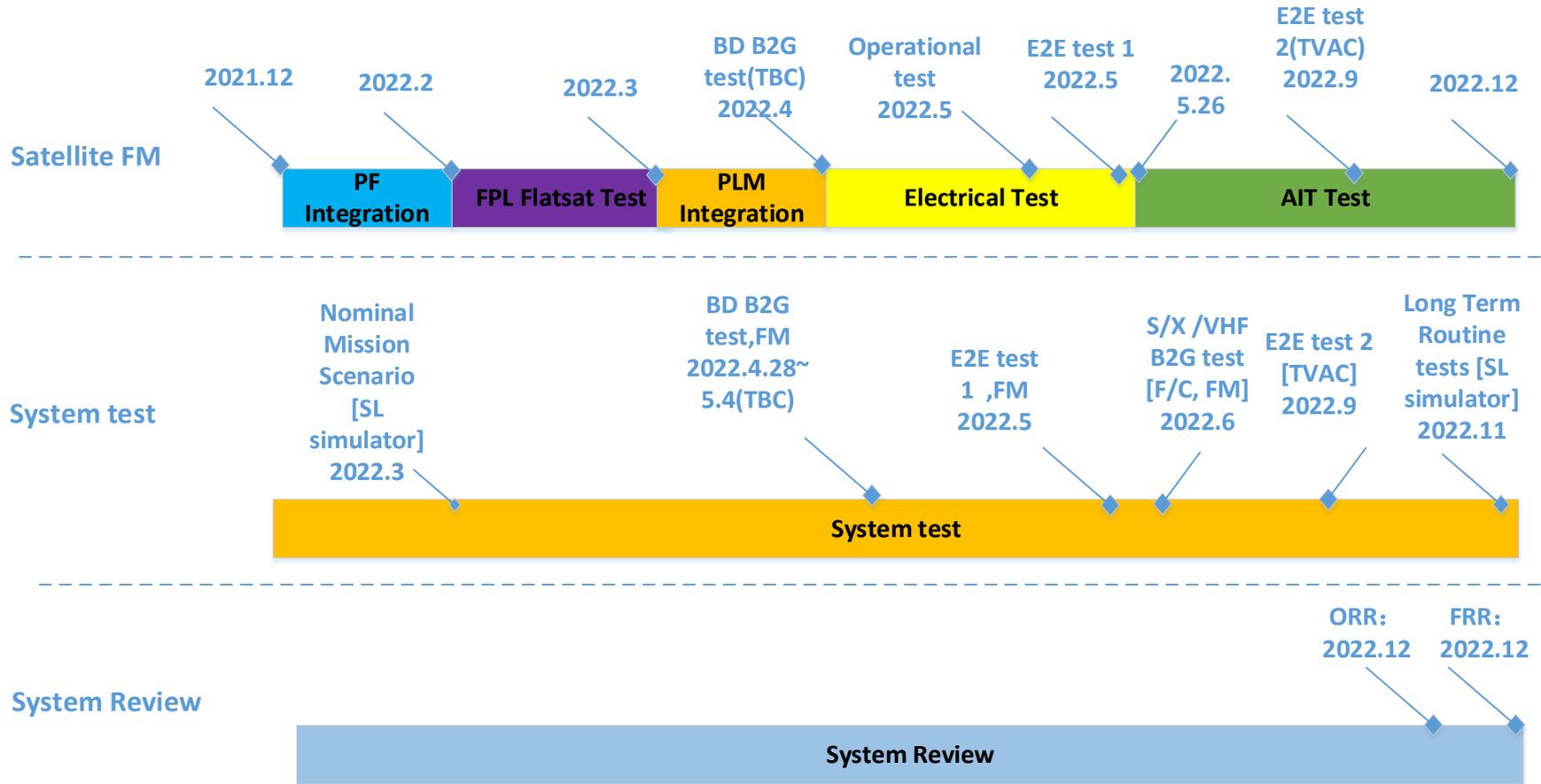
VT delivery: 2021.10

ECL&MXT Delivery: 2021.11

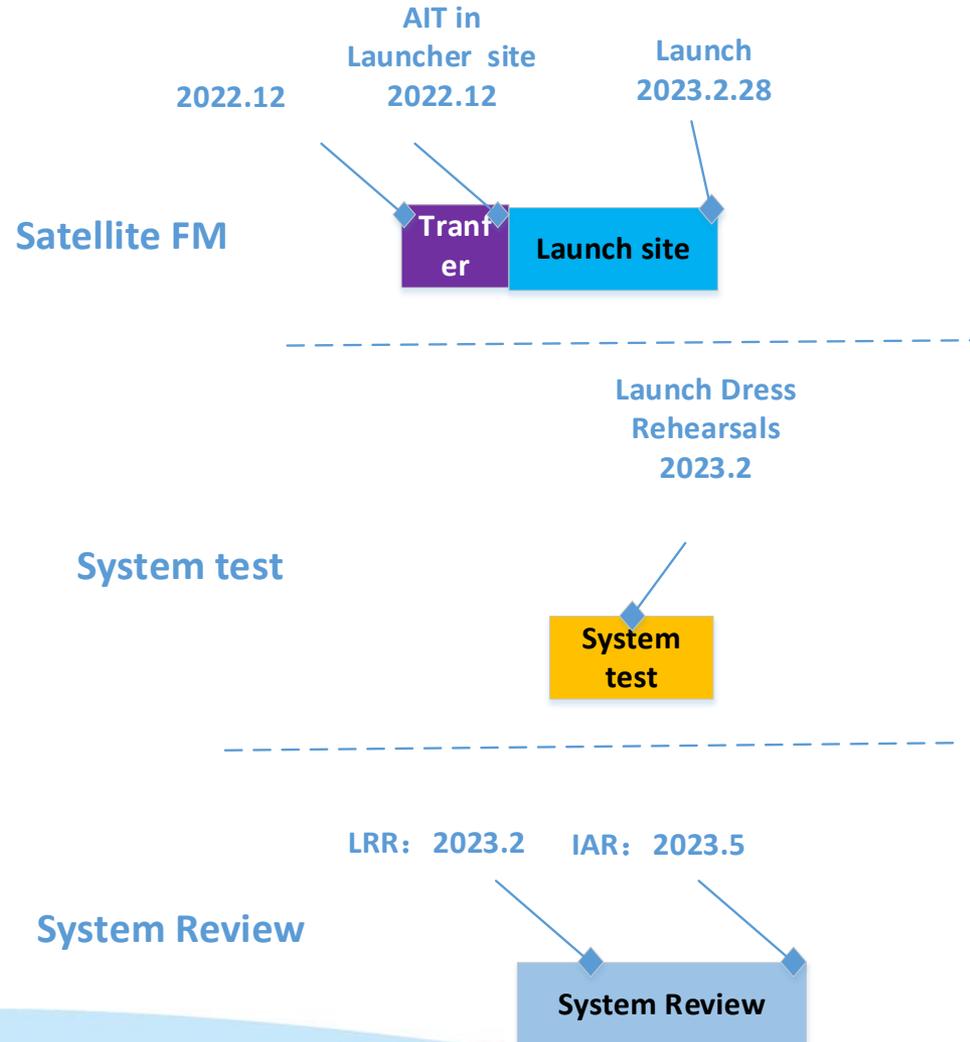
Phase D Plan---2021



Phase D Plan---2022



Phase D Plan---2023

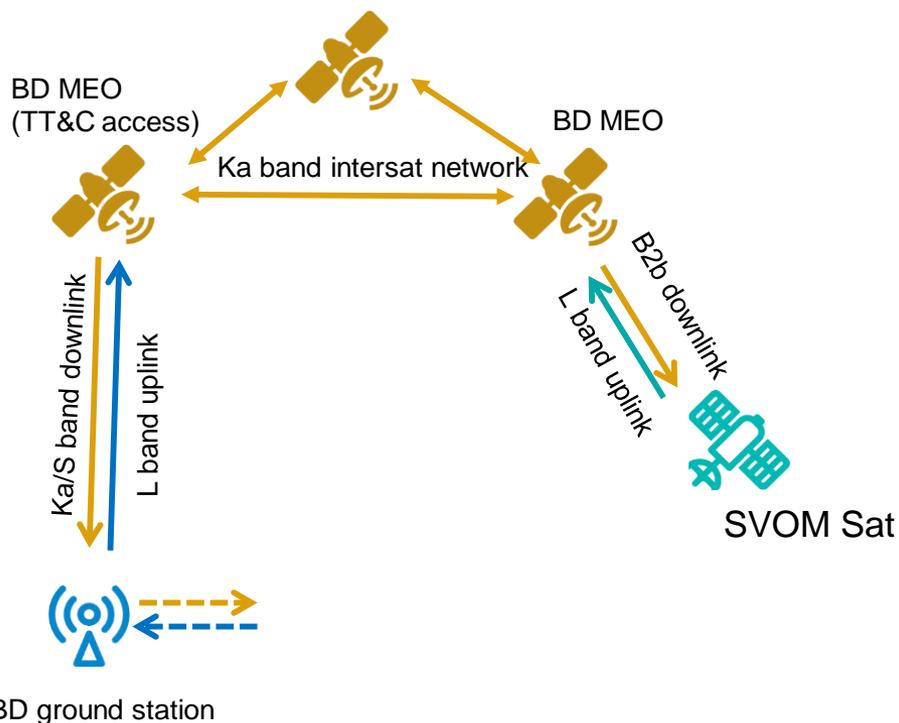




Conséquences:

- 1 an de retard par rapport au calendrier initial pris en compte dans les conventions signées.
- Evaluer l'impact du retard (1 an) sur les CDD.
- Préparer (avec le CNES) labo par labo des avenants de la précédente convention pour intégrer le retard de la date de lancement.

Beidou Short Message System



- **Total 24 Beidou (BD) MEO Sat**
- **14 BD MEO Sat configure short messages**
- **BD MEO system completed in 2020**
- **BD short message has been implemented in GECAM Sat (launched in 2021) and Einstein Probe Mission (planned launch in 2023)**

Beidou Short Message System Performance

BPS of channel

- 400bps from SVOM satellite to Beidou network
- 500bps from Beidou to SVOM satellite

Communication capability

- 1 short message/20 seconds
- No less than 400 bits of user data per short message

Design Life

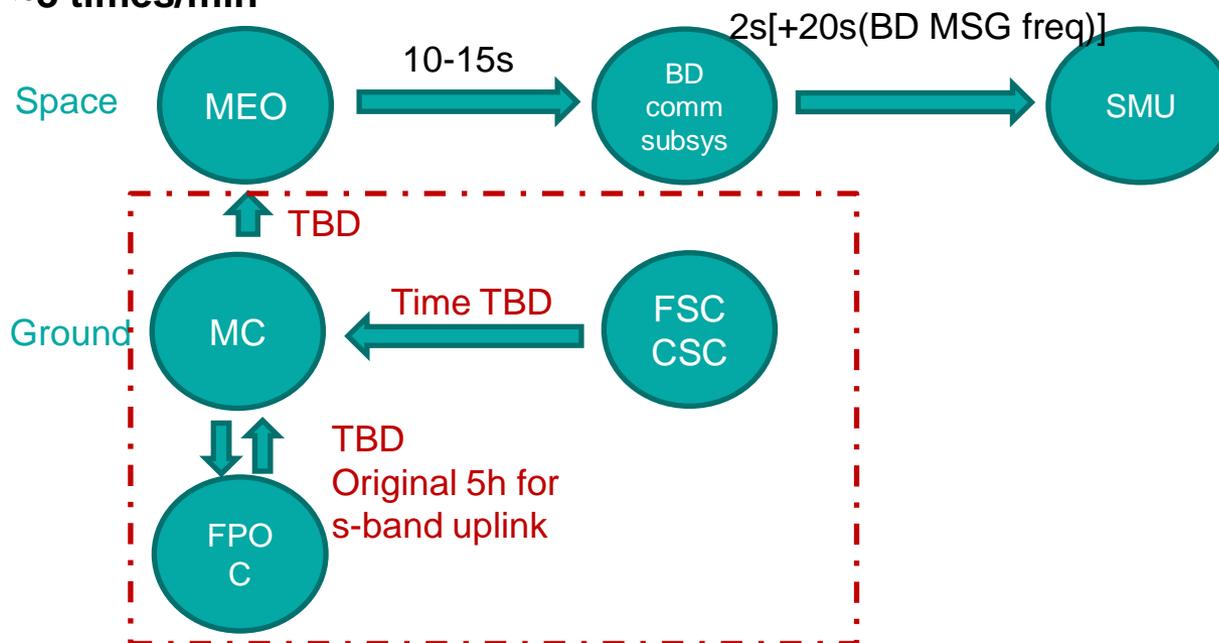
- Design life : ≥ 5 years

Beidou Short Message in SVOM Mission

- **Quick ToO-EX or ToO-MM uploading**
- **Fast publication of alert message to ground**

Beidou Short Message Uplink

- Uplink rate ~3 times/min



ToO-EX and ToO-MM upload

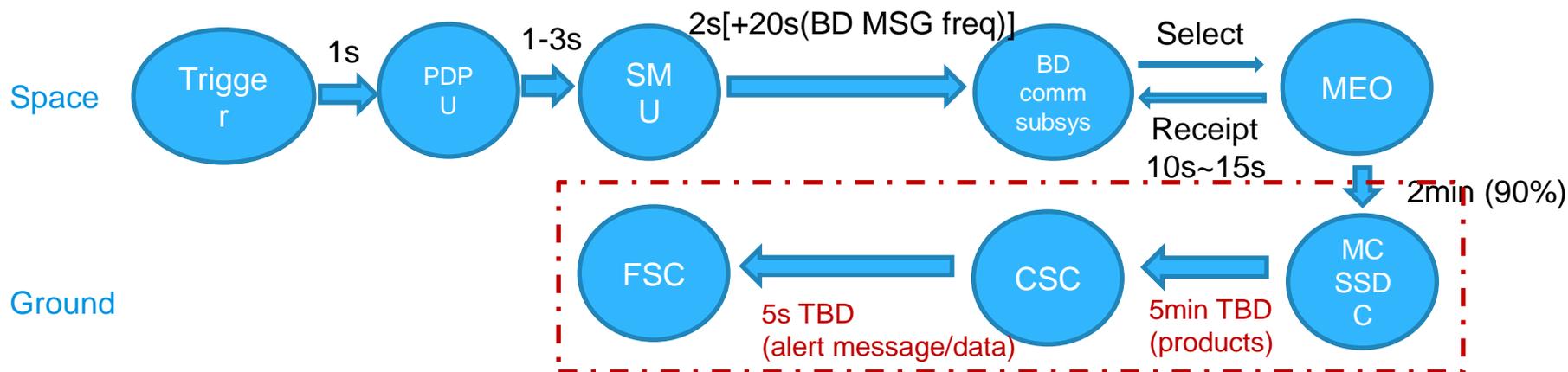
- ToO-EX work plan
- ToO-MM (Multi-Messenger) work plan
- Payload configuration parameter plan

TBD

- Optimize the ground programming loop to have a quick upload of ToO-EX or ToO-MM? FPOC-MC, FSC/CSC-MC...
- Adjust ToO-EX or ToO-MM req frequency?
- Impacts on the current architecture?

Beidou Short Message Downlink

- Downlink rate ~3 times/min



Alert Message download

Index	Data set(message)	Priority	Volume (bytes)	Tn(Starting point)	# BD short message
1	ECLAIRs trigger	1	94	T0	2
2	MXT position	2	94	T4_MXT	2
3	GRM general trigger	3	94	T0_GRM	2
4	Confirmation of receival by SMU	4	TBD	Tbr	1

TBD

- Products from MC/SSDC to CSC
- Time delay of alert message from CSC to FSC

NOTE :

- T0: time of the first GRB localization by ECLAIRs with significance greater than the AlertThreshold
- T4_MXT: time of valid MXT localization is available (QF=1, 2, 3 or 4)
- T0_GRM: time of the first GRB localization by GRM
- Tbr: time that satellite receives the Beidou short message