Vertical-Slice Tests

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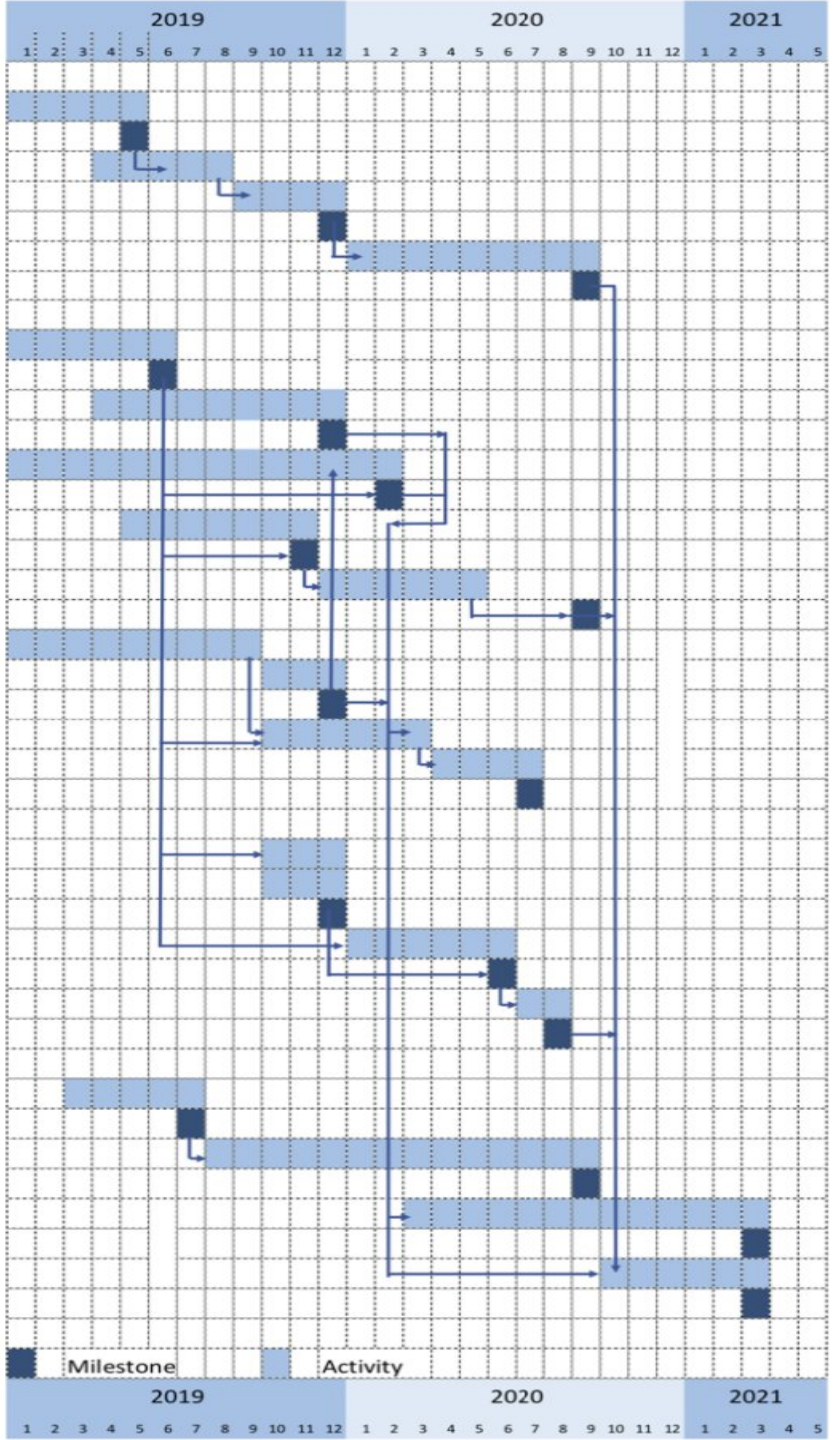
Content

- Review status
- Inventory of the next steps
  - and activities on the Vertical Slice
- Horizon now to entire 2020Q1
- Next meeting during the mW?

O2 milestones (see next pages)

	Avtivity	Milestone	End date
		FLP	
1		Qualification of FLP nodes	
2	FLP.1	PRR: Ready for FLP tender	May.19
3		FLP call for tender and purchase	
4		FLP Delivery & Installation	
5	FLP.2	FLP ready for detector commissioning	Dec.19
6		FLP & individual detector commissioning	
7	FLP.3	Individual detector commissioning finalized	Sep.20
		PDP	
8		Development of barrel detector reconstruction	
9	PDP.1	EDR: Reconstruction barrel detectors	Jun.19
10		Development of out-of-barrel detector reconstruction	
11	PDP.2	EDR: Reconstruction out-of-barrel detectors	Dec.19
12		Development & integration of calibration SW	
13	PDP.3	PRR: Reconstruction & calibration SW ready	Feb.20
14		Disk buffer tests	
15	PDP.4	PRR: Ready for disk buffer tender	Nov.19
16		Disk buffer tender and delivery	
17	PDP.5	Disk buffer installed and ready for commissioning	Dec.20
18		Detector description, digitisation	
19		Raw data creation	
20	PDP.6	Ready for simulation challenge	Dec.19
21		Reconstruction of simulated data	
22		Run Analysis Challenge	
23	PDP.7	Analysis Challenge result ready	Jul.20
		EPN	
24		Dimensioning of Computing nodes & network	
25		Market survey	
26	EPN.1	PRR: Ready for EPN & network tender	Dec.19
27		Tender EPN & network	
28	EPN.2	Delivery EPN & network	Jun.20
29		EPN & network installation	
30	EPN.3	EPN and network ready for comm.	Aug.20
		Global	
31		Vertical slice test system preparation	
32	O2.1	Vertical slice test system ready	Jul.19
33		Vertical slice test (with dummy data)	
34	O2.2	Vertical slice test (with dummy data) finished	Sep.20
35		Vertical slice test (simulated data)	
36	O2.3	Vertical slice test (simulated data) finished	Mar.21
37		O2 global commissioning (all detectors)	
38	O2.4	O2 global commissioning (all detectors) finished	Mar.21



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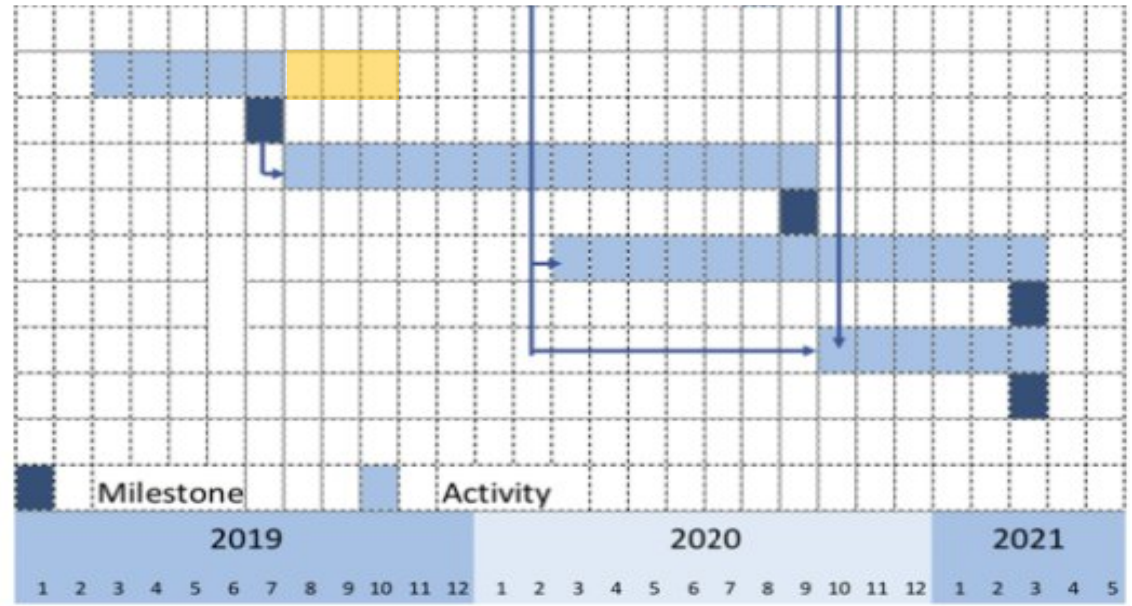
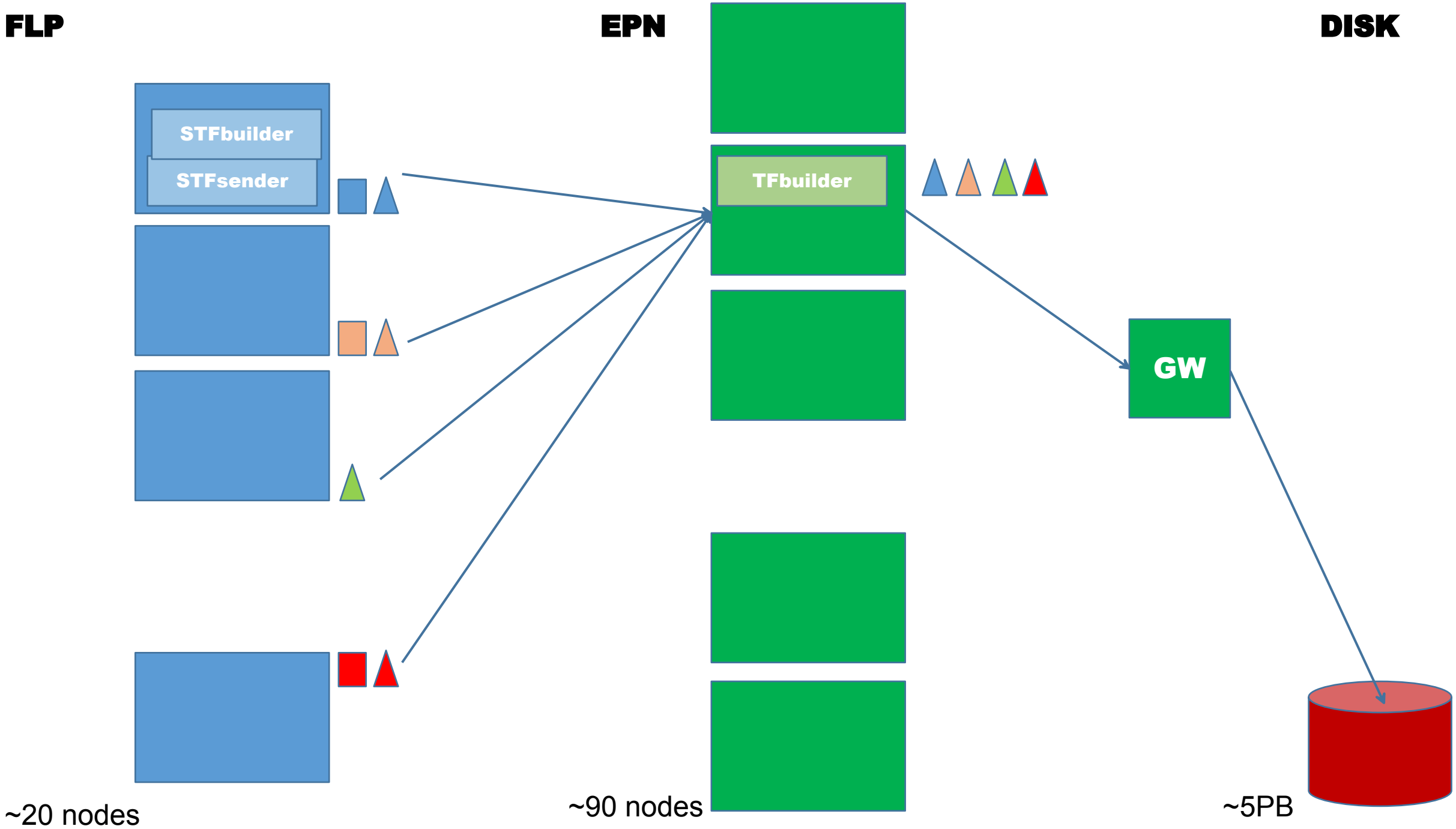
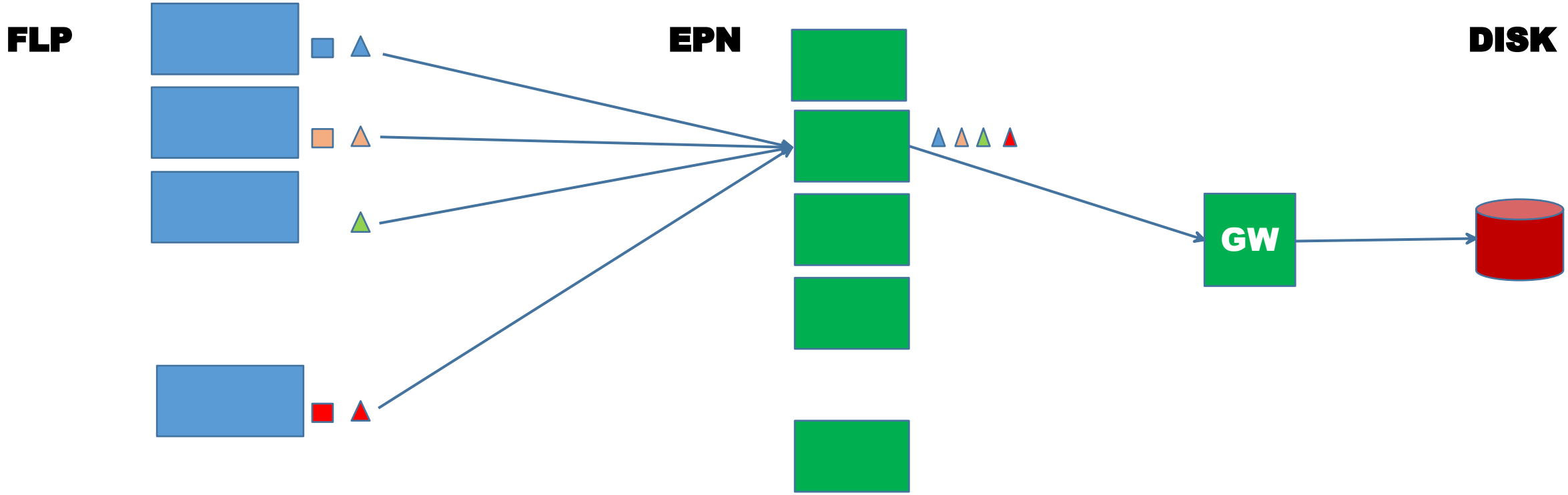


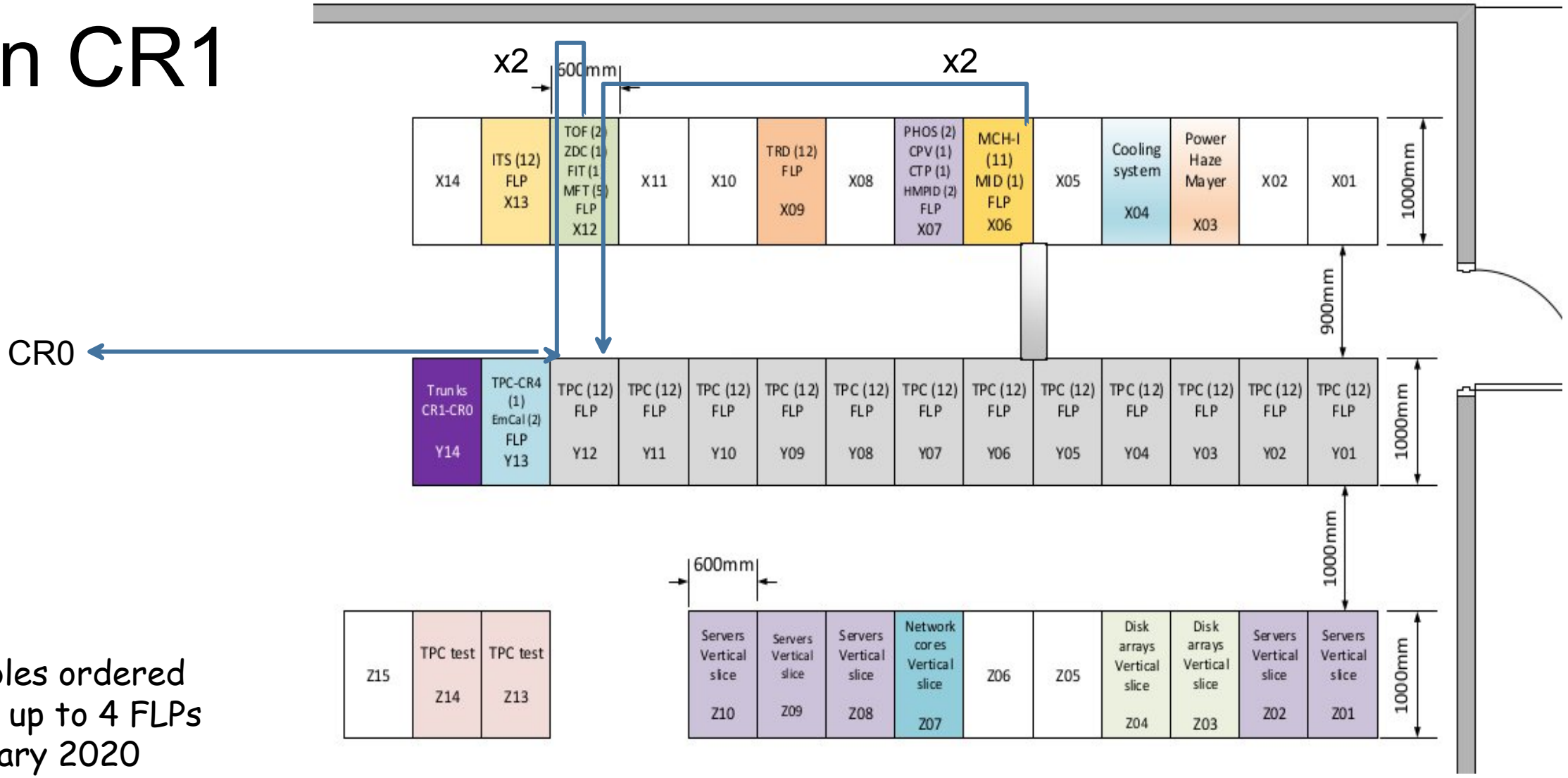

FLP
EPN
DISK
STFbuilder
STFsender
TFbuilder
GW
~20 nodes
~90 nodes
~5PB



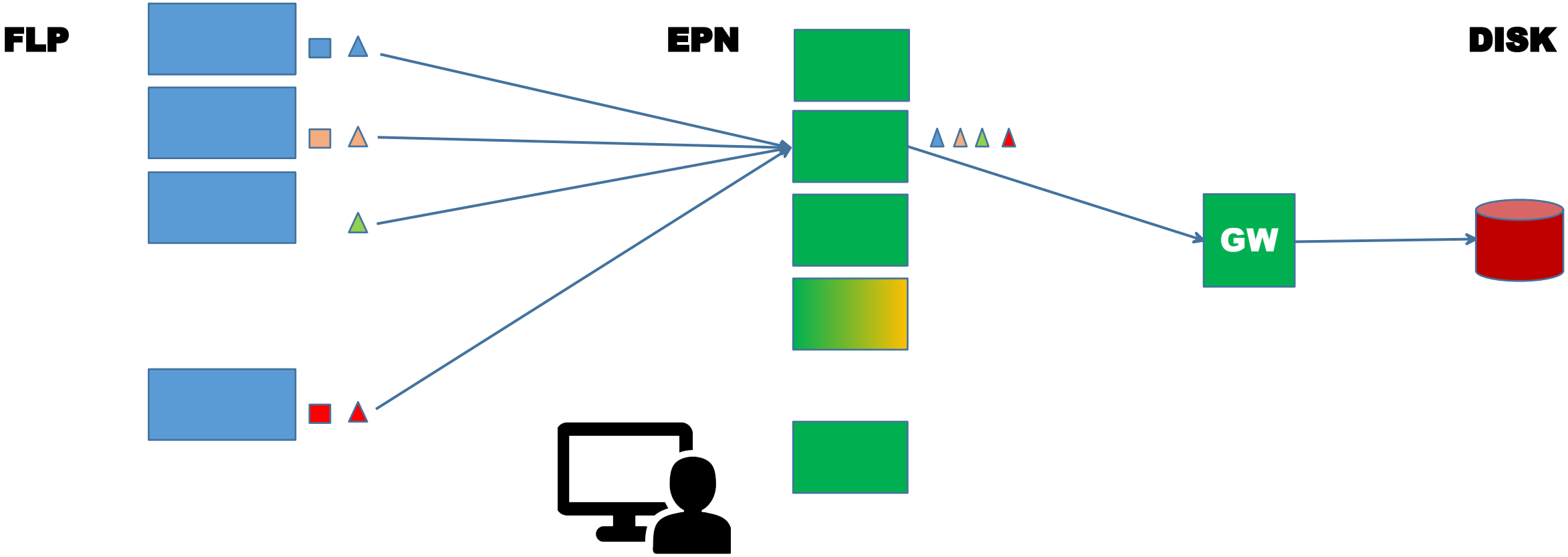
- How to make sw available
  - e.g. STFbuilder to be deplyed on FLP
- How to control FLP and EPN
  - First level of integration (2-click start of run)
- Initial STF-> TF validation
  - Gvozden presentation
    https://indico.cern.ch/event/751222/contributions/3650477/attachments/1952963/3242786/2019-11-28_TB_DataDist.pdf
- Stability/monkey testing
- CCDB multicast
- TFs to disks (test CC connectivity + EOSO2)

- How to make EPN application info available
  - e.g. #TF/s
- How to control FLP and EPN
  - Stability, performance (start/stop)
  - All processes (notably QC, CCDB proxies?)

VS in CR1



2 15-m cables ordered
to connect up to 4 FLPs
EAT: January 2020



- Reading a couple of FLPs with real detectors behind
  - e.g. STFbuilder to go on FLP
  - Detector people starting and stopping runs
  - Detector people using (enable/modify) QCs
- EPN data processing
  - Select given executable and run it
  - Against which data?
  - Cost-benefit analysis
- EPN -node prototypes could be hosted in the EPN
  - If needed

- Reading a couple of FLPs and read the assembled TF on EPN
  - Precursor of the global commissioning
  - Selective disk writing (and deletion...) assuming useful for commissioning
- What about surface installation?
  - TPC and ITS?
  - At this stage, unclear to me

Individual (all) detectors commissioning finalised
Disk storage commissioned
EPN commissioned

Reco and Calibration software ready

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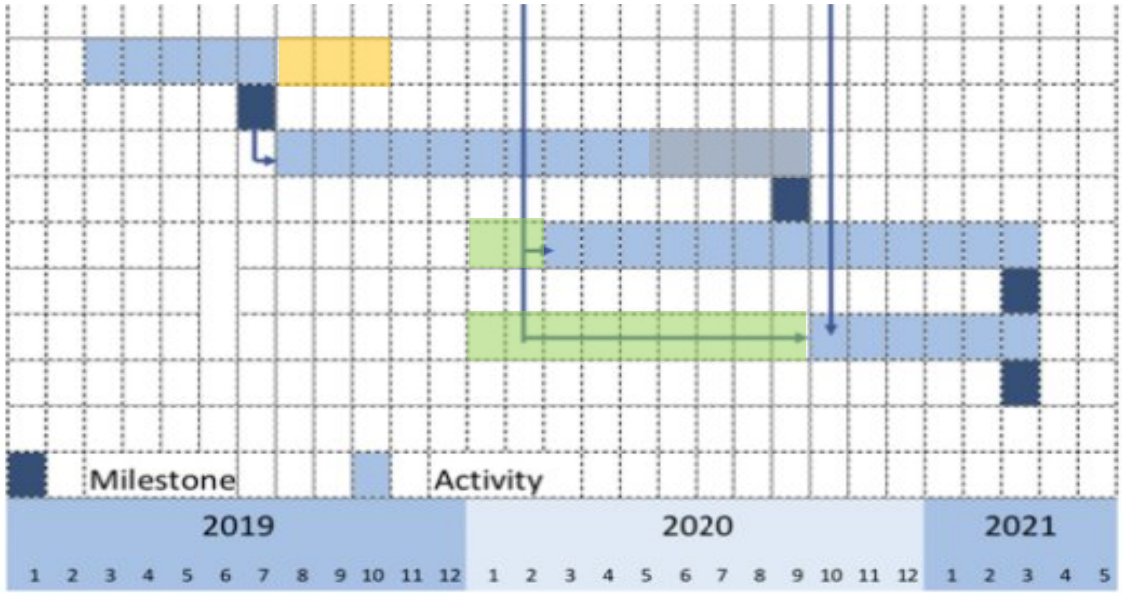
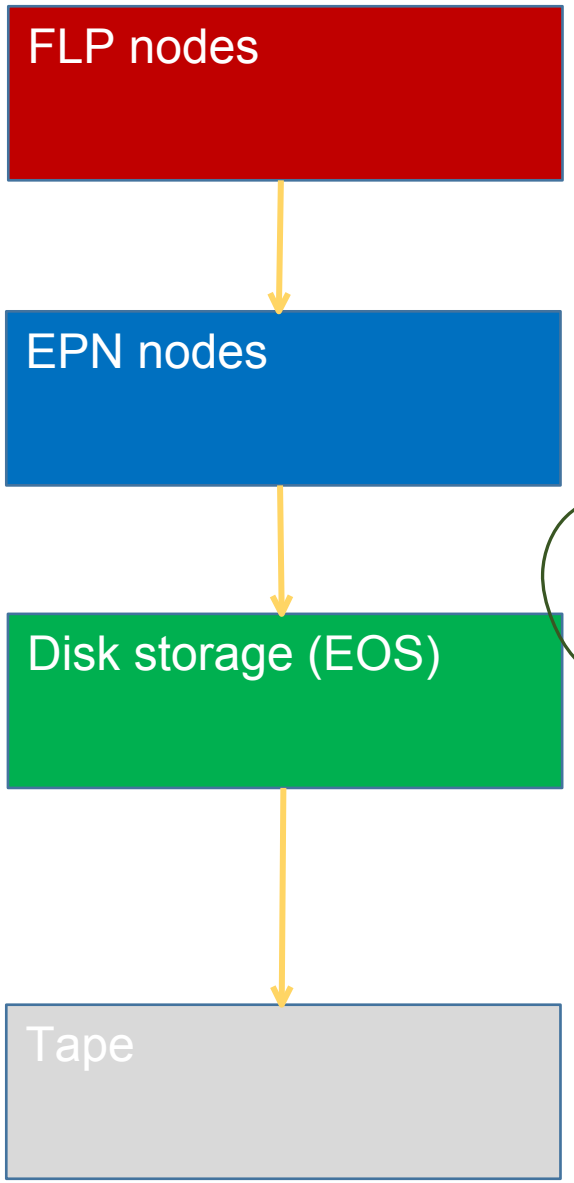


Vertical-slice only (O2.2)



w44	w45	w46	w47	w48	w49	w50	w51	Beginning 2020
	FLP installed + IB network		ECS controls	FLP-EOS rate tests				QC for pilot detectors Few detectors (4 FLPs?)
IB-ENET set-up	HLT in CR0 + IB network		More EPN-EOS rate tests	CCDB multicast tests		STF->TF validation	EPN controls; EOS	QC for pilot detectors TF to disk
Prototype already available	CC connectivity							
CCDB proto available	*CHEP*				PDP.2 review		EPN.1 review (tbc)	

Obsoleted

~90 EPN (HLT) nodes (750 in the TDR addendum)
~20 FLP nodes (out of 200)
~10% of the P2 network (IB + IB-ENET)
~10% of the storage
~10% of direct connectivity (P2->CC)

Discussion