Resource Pledging Process - input for discussion

Current pledging process is via Rebus

- Each site/federation enters 2 or 3 numbers per year per experiment
  - 3 if tape
- Unit of measurements are HS06 and net storage TB
- It is "simple", as it should be
  - In some countries pledging is a managerial decision, not necessarily technical people are doing that.
- The procedure is stable since before RunI (Rebus has historical data from 2009)

Tier	Country	Federation	Pledge Type	ALICE	% of Req.	ATLAS	% of Req.	CMS	% of Req.	LHCb	% of Req.
Tier 0	Switzerland	CH-CERN	CPU (HEP-SPEC06)	350,000	100%	411,000	100%	423,000	100%	88,000	100%
Tier 0	Switzerland	CH-CERN	Disk (Tbytes)	26,200	100%	27,000	104%	26,100	100%	11,400	100%
Tier 0	Switzerland	CH-CERN	Tape (Tbytes)	49,100	100%	105,000	112%	97,000	98%	33,600	100%

Need for an evolution?

- The pledges are assumed valid from April 1st 00:00 to March 31st 23:59
- Experiments are assumed to fill pledges flat (at least for CPU) in the whole time window
- The model behind this is direct acquisition of owned resources (well) in advance - a GRID approach

New facts to be taken into account:

- Push to use at least some HPC systems
- Resource acquisition not via procurement but grants, commercial clouds, …

Some ideas #1

- HPC:
  - Experiments are not staffed to handle _any_ HPC system we are given
  - Some HPC systems can (and have) be made transparent to the experiments
    - CVMFS, proper SysOp/Virtualization, memory and disk requirements, …
- We could explicitly say facilities are "allowed" as pledges if:
  - Their difference wrt a "standard site" is invisible to the Experiment: the systems should be capable of running all Experiment workflows

This would not require any change to the Rebus tool

Some ideas #2

- A single number per site per category means there is no way to
  - Communicate a delay in procurement (other then sending an email)
  - Communicate the presence of grants / etc in a certain time window
  - Match the experiments needs IF they can also be not flat
    - Not true for all the Experiments
    - In other cases, a flat behavior is forced by the flat resource availability, but it is not the natural one
- In the quest not to make the process too difficult, an idea could be to allow (not force!) requests and pledges by quarter instead of by full years
  - Lower granularity does not make sense, difficult to predict 2 y in advance in the request and scrutiny process
  - Procurements usually arrive by the summer, so first bin can be used to communicate late procurements
- This would need a change to the Rebus tool