- We asked this question of UK hosted VOs in October 2013: "What services do you require 2015-2020?". Few clear requirements at this stage came back. Answers that came back were of this type...

- "most likely a subset of existing services" (GOCDB, APEL, VOMS, ...)

- Some interest in cloud technologies, iRODs and simpler data access.

At present the UK NGI is predominantly HEP led so our plans are very much developed in conjunction with LHC needs. The following list is a snapshot of current directions for 2015+.

- Phase out software areas and move to CVMFS

- Migrate from FTS2 to FTS3

- Move to SEs without SRM – WebDAV

- Investigate and deploy CEPH (now in test and being deployed with GridPP cloud)

- Expand data federation approaches - redirectors

- ## DIRAC/ganga
  - concerns about future of WMS and LFC
  - There is a GridPP DIRAC instance being used now (and developed)
- ## Dirac File Catalogue
- ## Cloud/VMs
  - 3 sites now with OpenStack working with LHC VOs in production infrastructure. 3 sites running GridPP VAC (see http://www.gridpp.ac.uk/vac/) and Vcycle scheduler (which manages cloud VMs on OpenStack). 1 site looking at CloudStack
  - Current focus on improving monitoring and handling quotas
  - We expect more sites to deploy cloud interfaces in 2015 and for there to be a DIRAC/ganga submission mechanism
  - Initially 1 site joining EGI Federated Cloud

- IPv6 / dual stack running
  - We have several sites testing things in this area. CERN runs out of IPv4 addresses in 2015
  - One site now running dual stack
  - Pressing sites to ensure local IPv6 availability
- Gradual migration away from torque/maui
  - several sites have moved to HTCondor and ARC-CEs
- Multicore job enablement
- Security, including federated identity management (AAI)
- Interest in HTC-HPC seamless workflow
  - GPGPU and Xeon Phi