

# Categories for Runtime systems

- Category I: Uniquely Exascale
  - **Load balance** (including tolerance to noise and temporary shortage of resources (i.e. as a result of faults))
  - Hierarchical execution models and scheduling
  - **Scale/optimize Comms**: MPI, routing, comm. schedule,...
- Category II: Exascale plus trickle down
  - **Asynchrony, overlap**
  - **Mem. Mgmt. & Locality scheduling**
  - Heterogeneity: scheduling
- Category III: Primarily Sub-exascale.
  - Fine grain mechanisms @ node level (for thread mgmt & synch support)