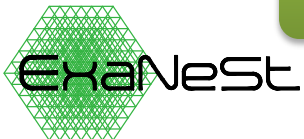
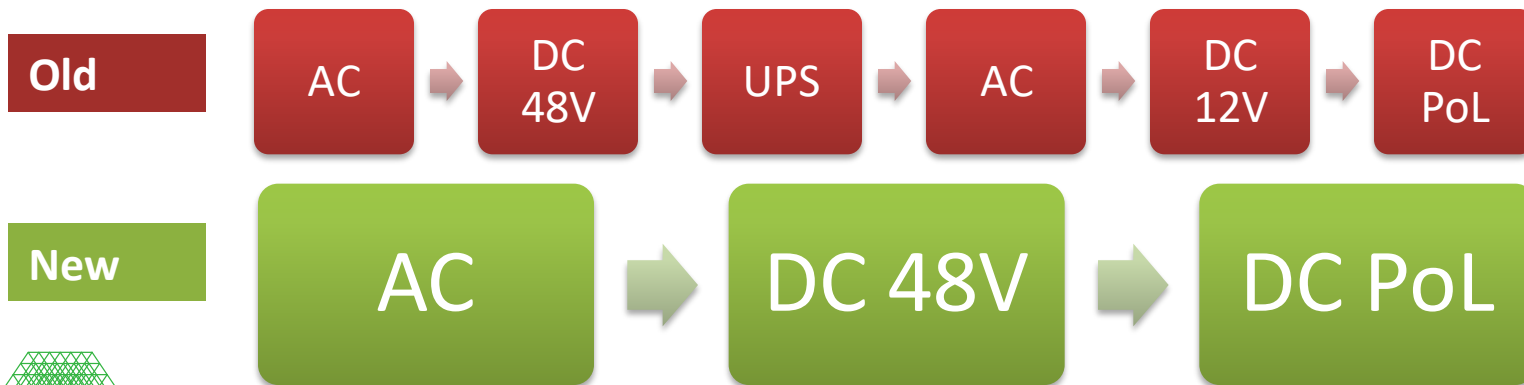
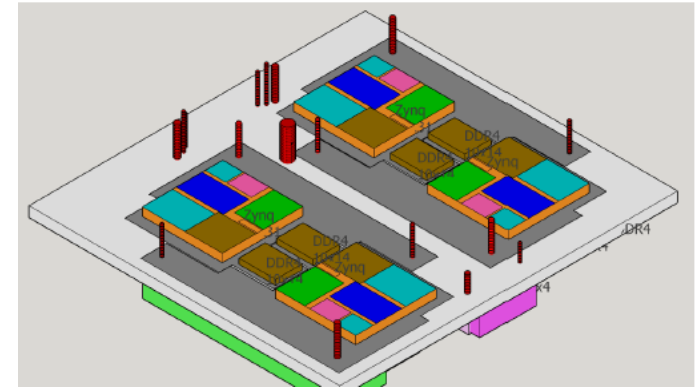


ExaNeSt – The Nest For ExaScale

- ARMv8, UNIMEM Partitioned Global Address Space (PGAS)
 - low energy compute
 - low overhead communicate
 - FPGA-assisted acceleration
- **Network**: *unified* compute & storage, low latency
- **Storage**: distributed, *in-node* non-volatile memories
- Real ***Applications***: Scientific, Engineering, Data Analytics
- Data Centre ***Infrastructure*** (Power and Cooling): Total Liquid Cooling, Liquid Cooled AC to 48V to POL
- ***Prototype***: 1K cores, 16GBytes DDR4 per FPGA



Prototypes & Ambition



- Hot Water Cooling (>50C), Heat Capture Functions
- 100kW cabinets (small footprint), 1.0x PUE, >0.9 ERF Potential
- 48V DC Power Distribution
- Potential for High Density Data Centres or Modular Facilities:

4x(ARM+FPGA) per n
 16x n per u
 2kW-3.2kW per u
 Short Depth Cabinets

