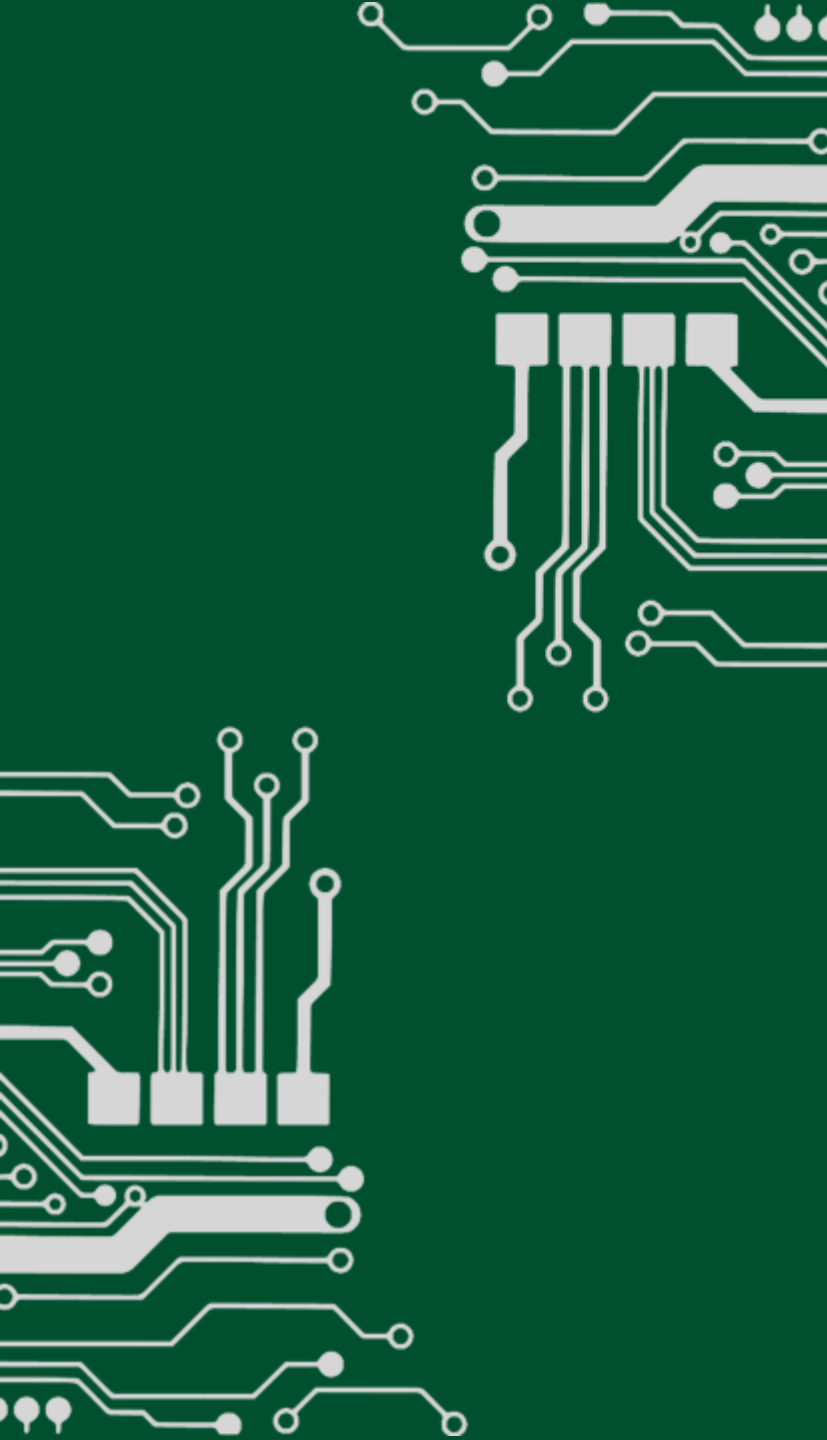


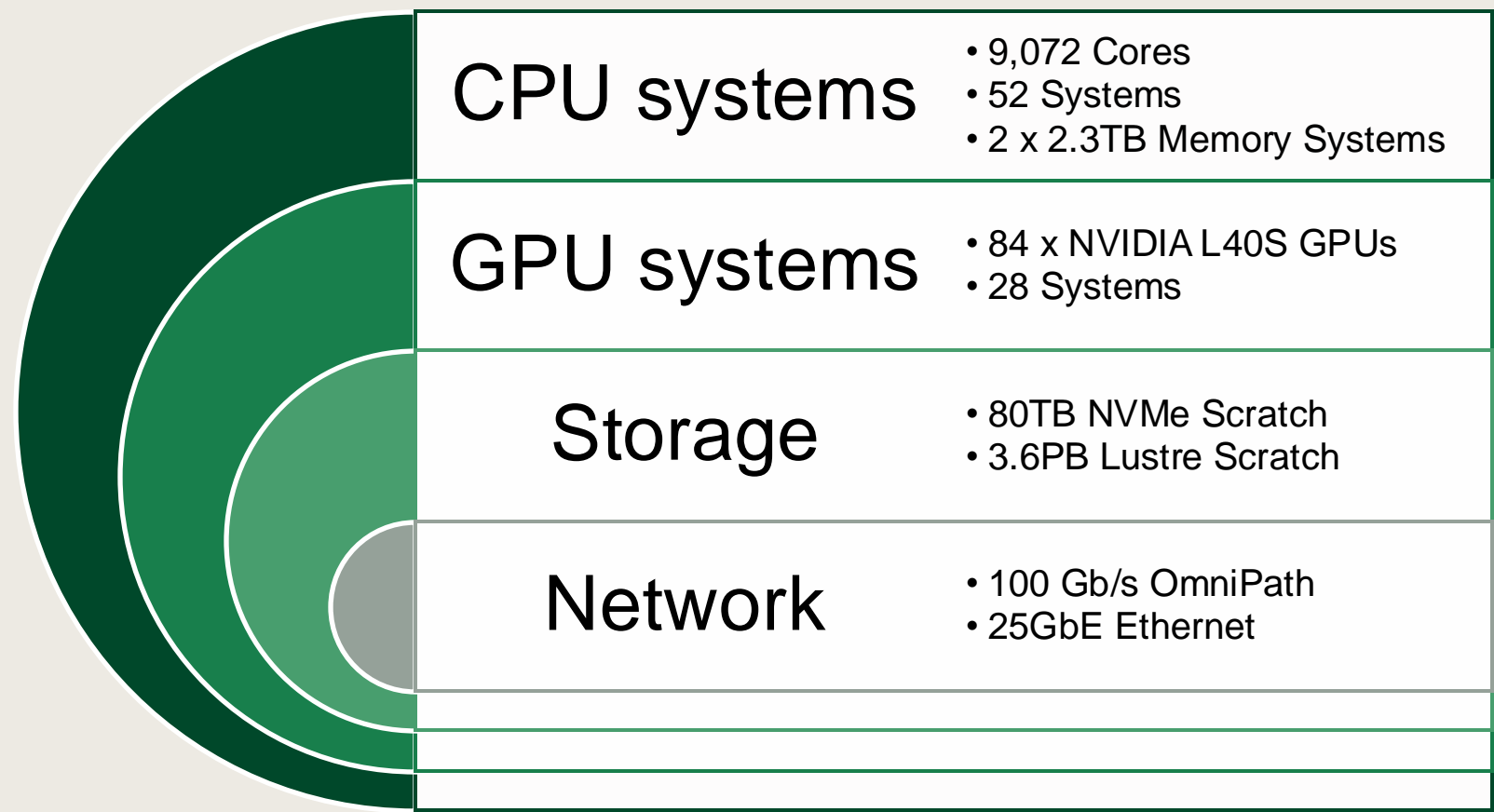


UNIVERSITY OF LEEDS

# AIRE HPC Cluster



# Overview of Aire



ARC3 -> AIRE	
CPU Cores	1.5x
Memory Bandwidth	6x
Max High Memory	3x
GPU Flops	28x
Scratch Storage	4.5x
NVMe Scratch	New 80TB
Low Latency Network	1.8x

# Technical Details – Aire

## CPU nodes (52)

- Dell R6625 servers
- AMD Dual 84 core 2.2GHz (9634 Genoa-X)
  - **9,072 cores** total
- 768GB DDR5-4800 Memory
- Dual 480GB M2 drives

## High memory nodes (2)

- 2.3TB DDR5-4800 Memory

## GPU nodes (28)

- Dell R7615 servers
- 3 x NVIDIA L40S 48GB GPUs (PCIe)
  - **84 GPU cards** total
- AMD 24 core 2.9GHz (9254 Genoa-X)
- 256GB DDR5-4800 Memory
- Dual 480GB M2 drives

## Storage

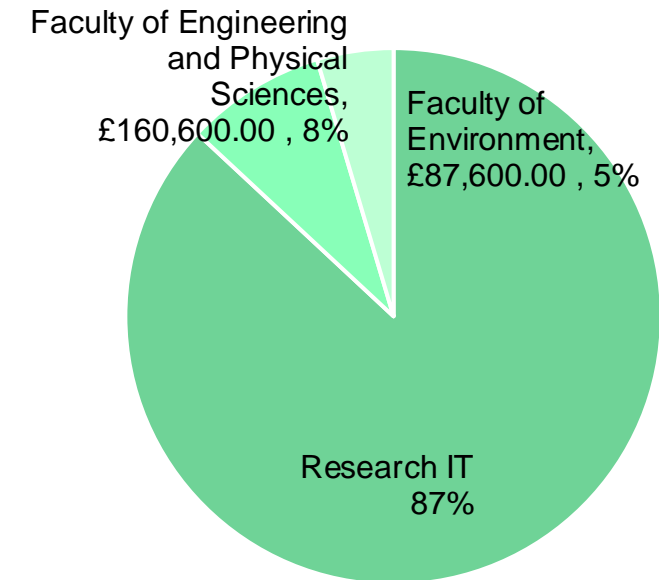
- NEW - 80TB NVMe Lustre Scratch System
- 3.6PB Lustre Scratch

## Other nodes

- Login Nodes (4)
- Management Nodes (2)

## Funding

- £1.9m hardware spend
- Faculty of Engineering and Physical Sciences
  - 11 GPU nodes
- Faculty of Environment
  - 6 GPU Nodes



# Aire – Timeline & Plan

## 9<sup>th</sup> September 2024

- ARC3 capacity reduced by 50%
- Installation of 50% AIRE systems and infrastructure
- Users continue to work on ARC3 (50%) and ARC4

## October to November 2024

- Migration of all users on to AIRE (50%) & SLURM scheduler
- ARC3 shutdown; remaining AIRE systems installed

## End of December 2024

- ARC4 systems integrated into Aire SLURM environment
- ARC3 & ARC4 data deleted unless it has been transferred to AIRE

**Help to migrate to Aire and SLURM will be available from the RSE team throughout the migration**

Contact us at: [rcteam@leeds.ac.uk](mailto:rcteam@leeds.ac.uk), <https://arc.leeds.ac.uk/> & <https://it.leeds.ac.uk/it>