# Computational Resources

## Hardware

Cluster computing facility:
   800+ cores (Intel® Xeon® CPU E5-2680 v4 @ 2.40GHz)
   Installed at DC2 – enjoying UK's top networking infrastructure

## Software

| | |
|---|---|
| Casting simulation | ProCAST<br>FLOW-3D<br>MAGMA |
| Forming simulation | DEFORM<br>MSC Simufact |
| General FEA / CFD | ANSYS (Fluent and Mechanical)<br>ABAQUS<br>OpenFOAM |
| Microstructure simulation | MICRESS |
| Thermodynamic modelling | PANDAT<br>Thermo-Calc |
| DFT and atomistic | VASP<br>DL_POLY and LAMMPS |
| Development tools | Intel® Parallel Studio XE Professional<br>Edition for Fortran and C++ Windows |