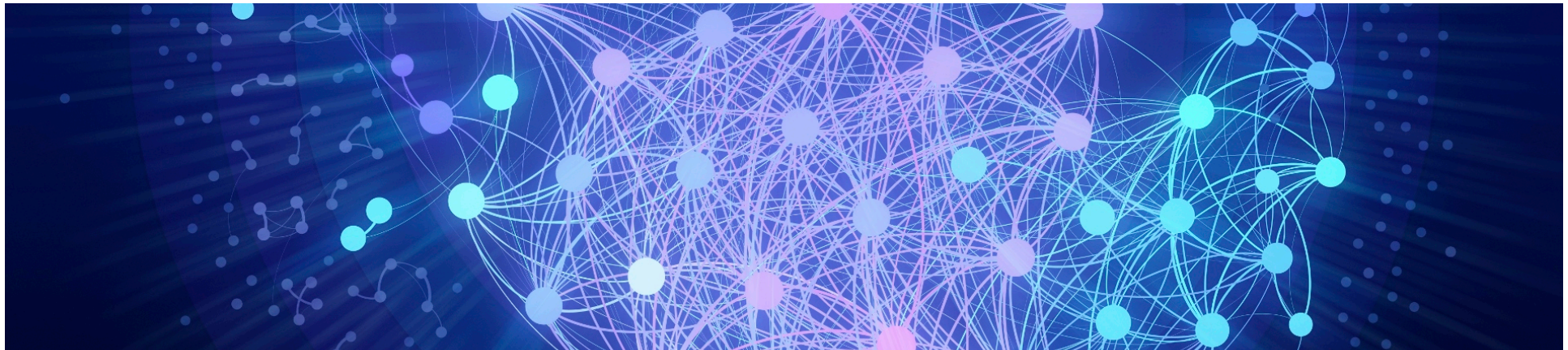




Hartree Centre
Science & Technology Facilities Council

A Lightning Introduction to the Hartree Centre

Alison Kennedy
Director | STFC Hartree Centre | UK



Who are we?

STFC's high performance computing, data analytics and cognitive technology centre

Provides businesses (and researchers) with access to powerful technologies, facilities and scientific computing expertise

Primary purpose is to apply the latest capabilities in computing technologies to commercial challenges

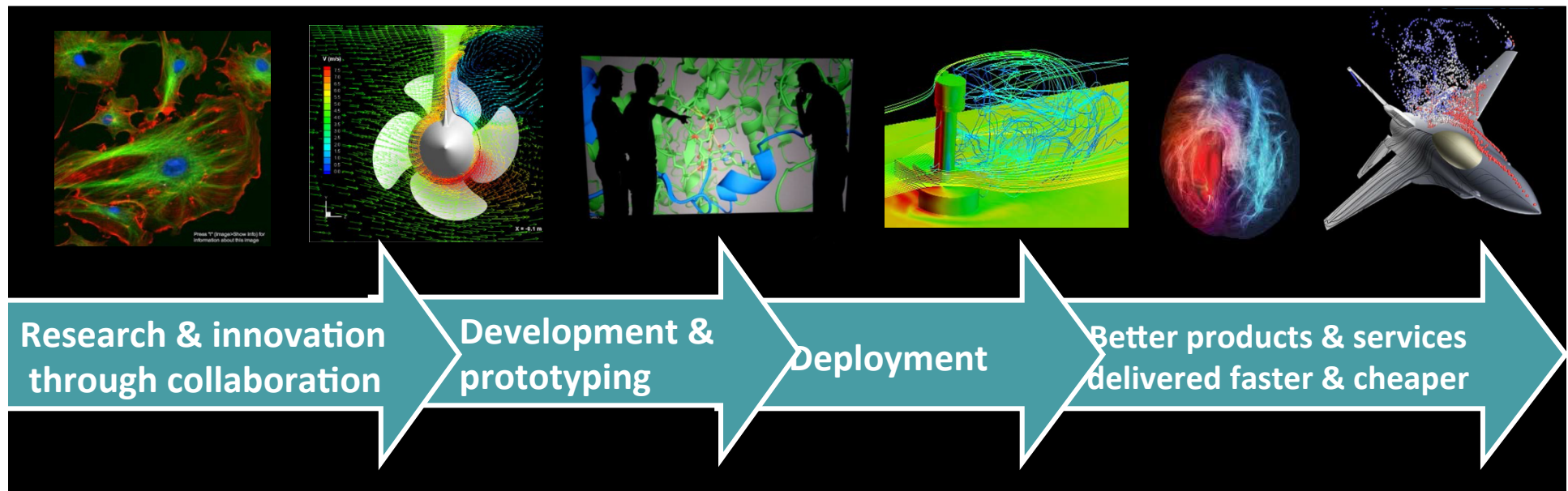


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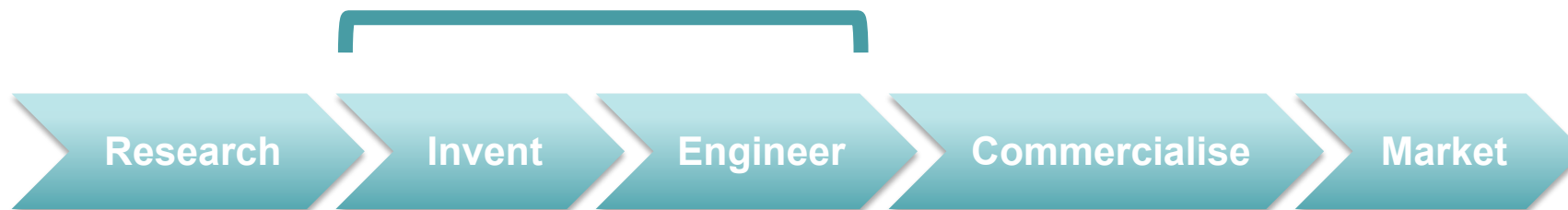
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Our mission

To transform UK competitiveness by facilitating and accelerating the adoption of high performance computing, data-centric computing and cognitive technologies.

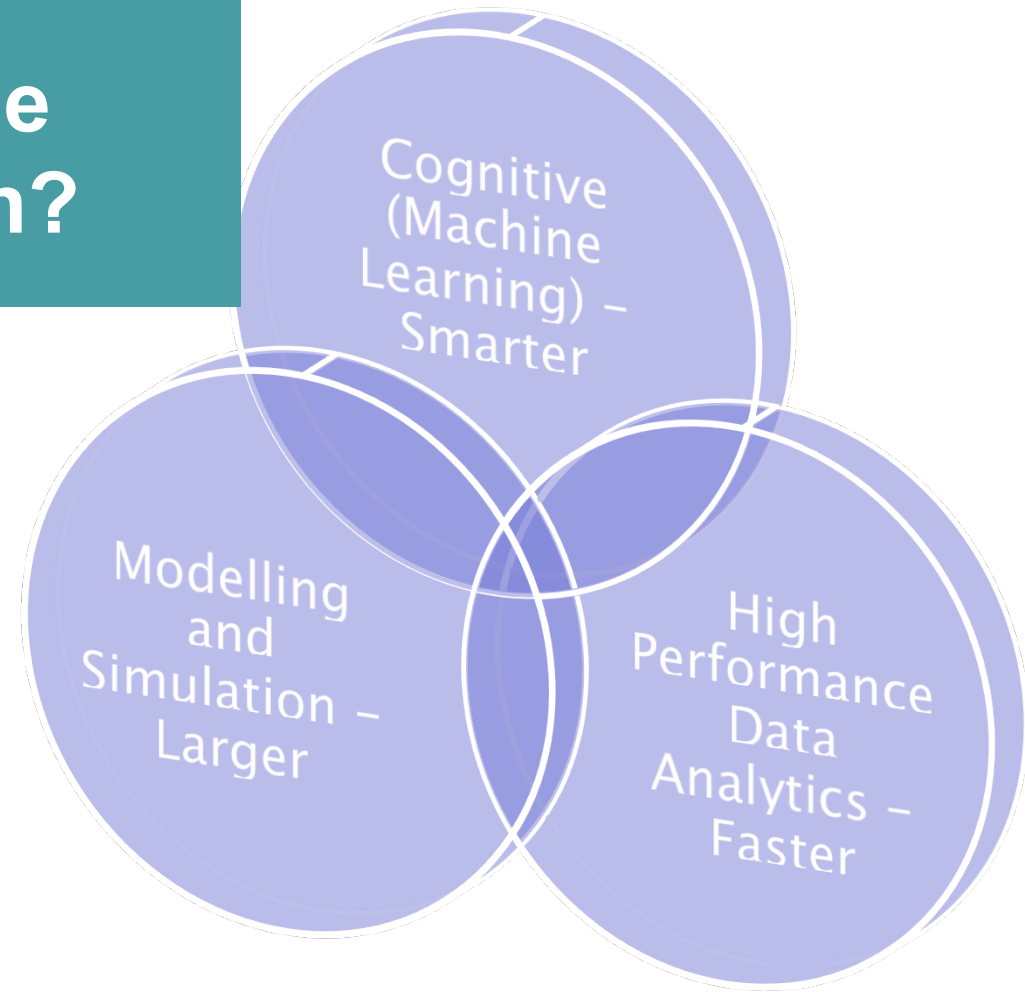


Logical Innovation Framework



What is our Unique Selling Proposition?

The Innovation Return On Research (IROR or “Phase 3”) programme gives us the opportunity to bring these three key technologies together.





Tangible Digital Assets

- *Workflow* is the definition, execution and automation of business processes, for co-ordination and synchronisation (driven by increasing data volumes)
 - Improved productivity
 - Faster business reaction time
 - Improved accountability and transparency
- A *Digital Asset* is a “building block” that comes in a binary format with the right to re-use
 - Software packages, modules, tools, datasets etc.
 - Typically delivered in a “container” with its own operating environment



Our machines

Intel platforms

Bull Sequana X1000

Lenovo NeXtScale | 8,192 cores

Lenovo System x iDataPlex system | 2048 cores

Intel Xeon Phi | Knight's Corner

IBM big data analytics cluster | 288TB

IBM data centric platforms

IBM Power8 + NVLink + Tesla P100

IBM Power8 + Nvidia K80

Accelerated & emerging tech

Maxeler FPGA system

ARM 64-bit platform

Clustervision novel cooling demonstrator