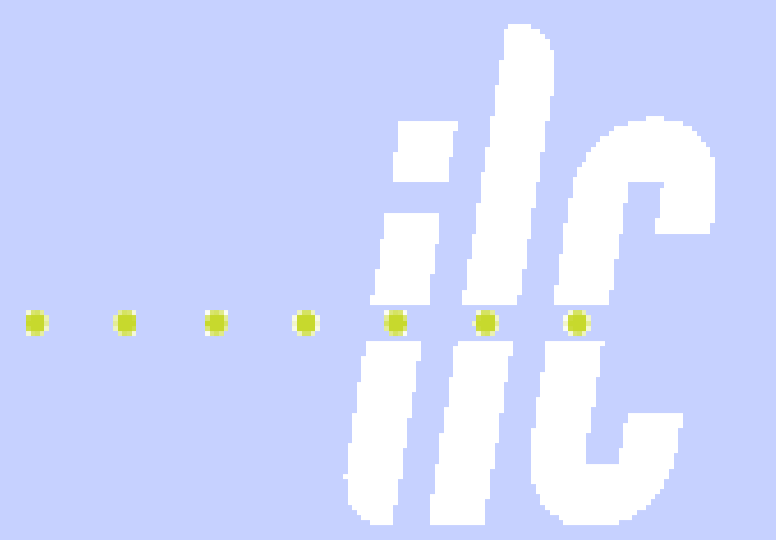
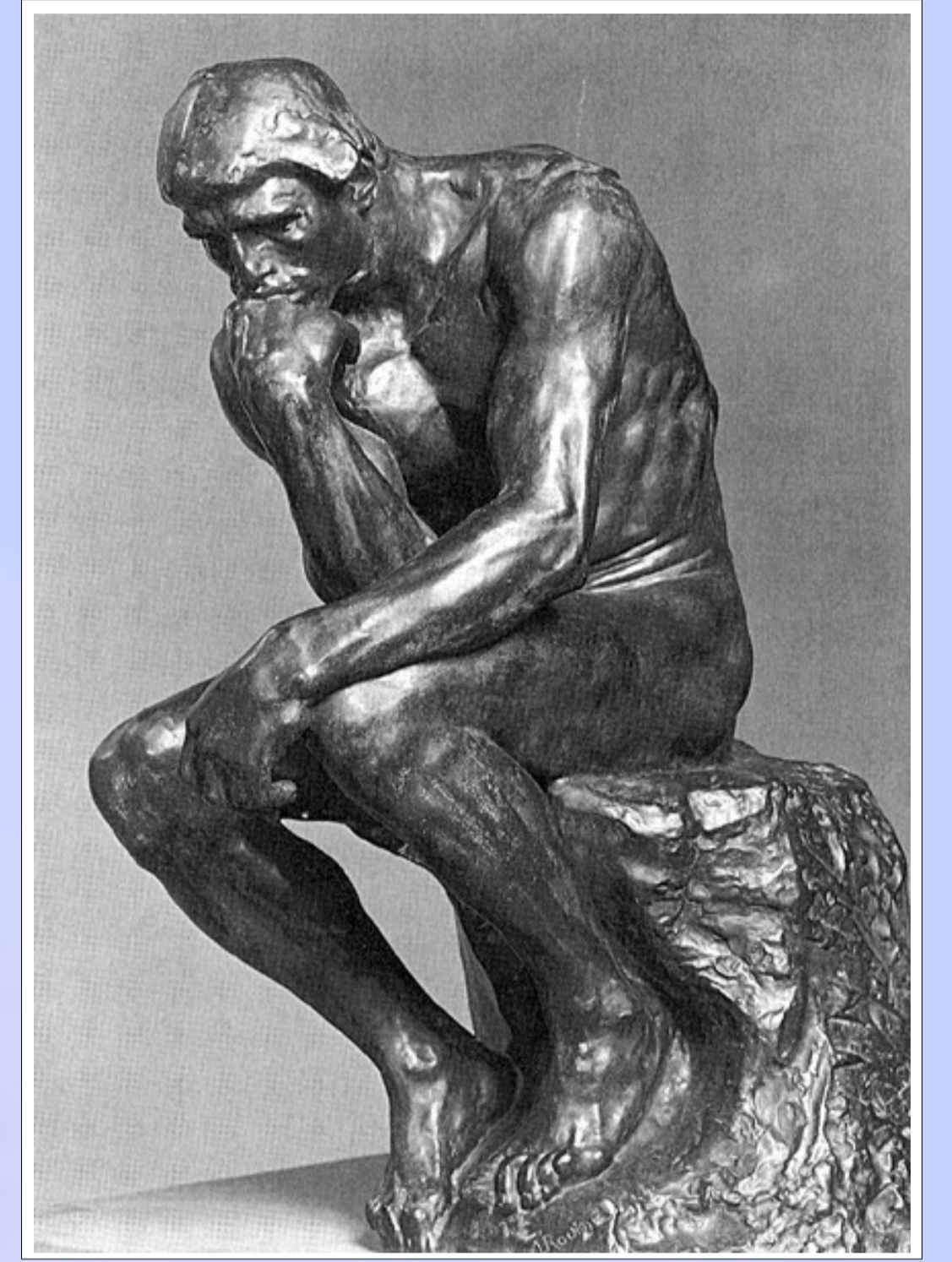


Spin-offs from HEP...

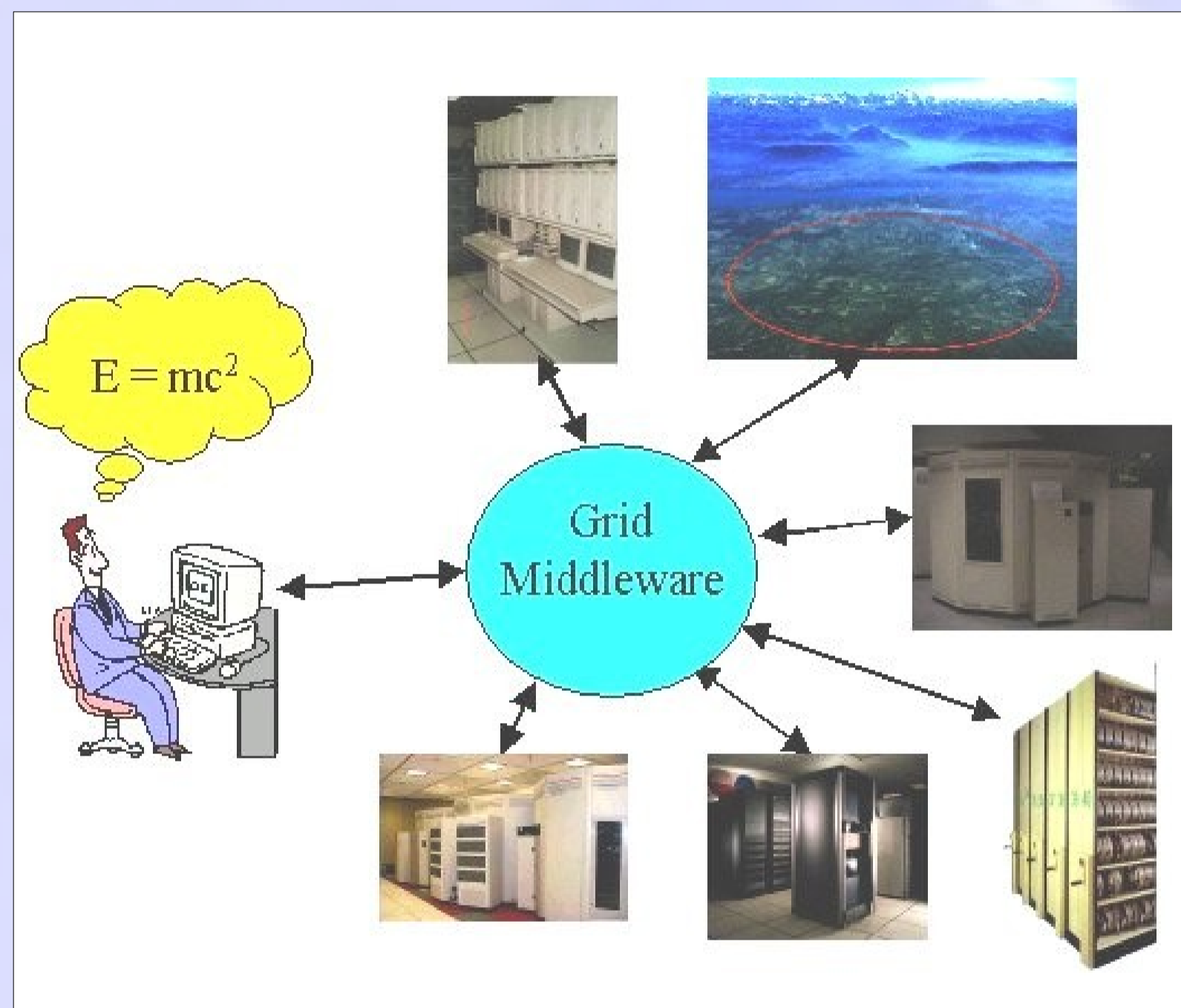


There is an intrinsic value inherent in basic science; most people are happy to know that the Earth orbits the Sun rather than vice versa, but the practical and economic reasons are compelling as well.



A spin-off from CERN:

The **World wide web** itself was invented for particle physics by Tim Berners-Lee working at the world biggest particle physics lab (CERN).

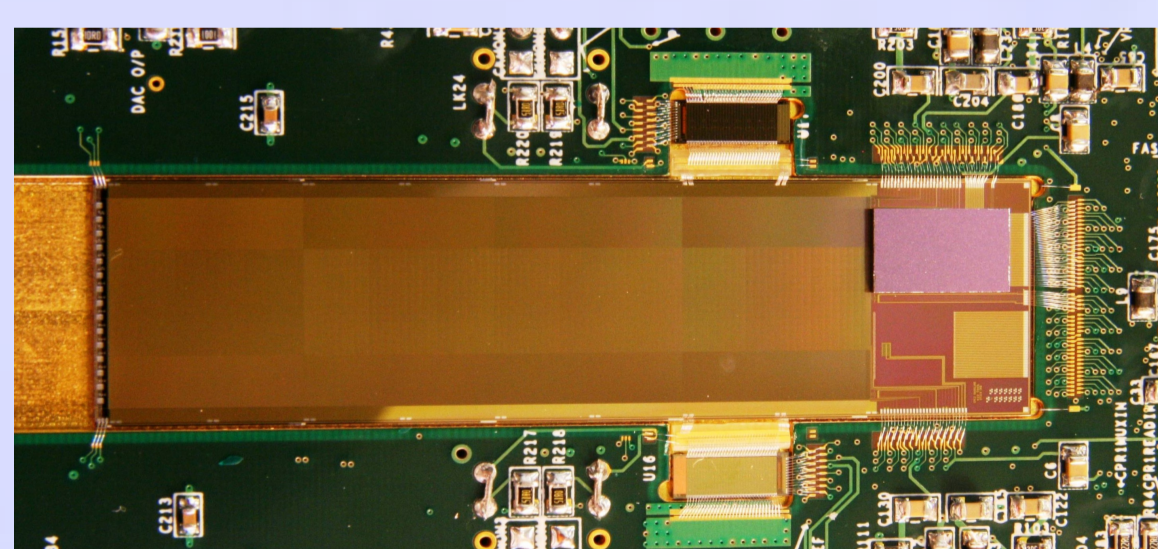
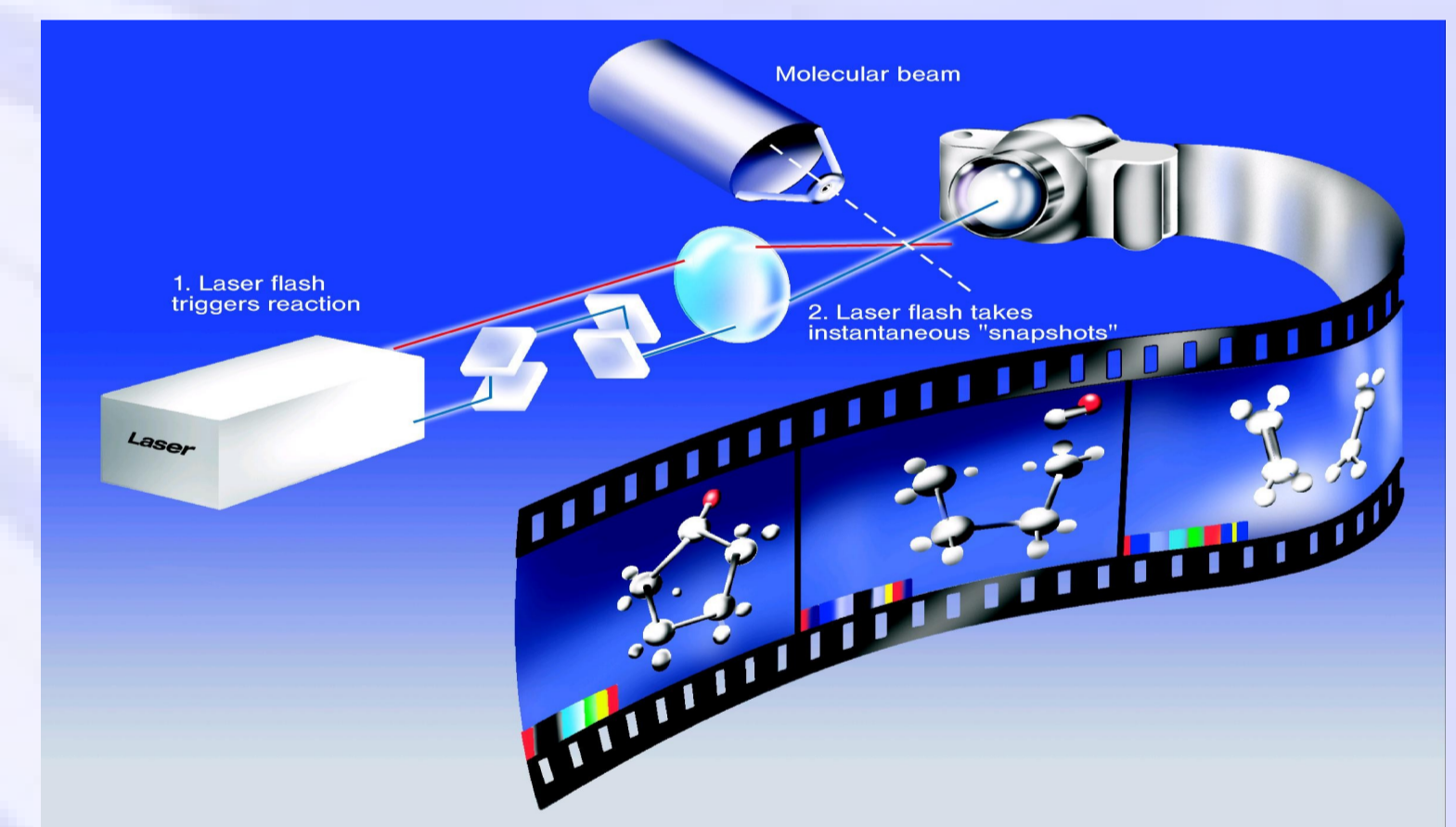


Spin-off from the LHC:

Particle Physicists and CERN are now instrumental in a new development called the **GRID**. The Web allowed people to share information over the internet, the GRID allows sharing of computer resources and will cause a revolution in many fields as far apart as game consoles and artificial intelligence as well as cutting-edge science.

A spin-off from the ILC:

Linacs similar to those designed for the ILC can be used to build a “free electron laser”, a novel kind of laser that can produce ultra-short pulses of X-rays with applications in several fields such as biology, chemistry and engineering...



Imaging spin-offs:

The work done by LCFI on CCDs can be applied to areas where ultra fast imaging is essential: adaptive optics, electron microscopy, various types of molecular, crystal spectroscopy and also medicine.

Aside from **fundamental knowledge** and **spin-offs**, investment in basic science provides technologically and mathematically literate **people** able to drive innovation in diverse fields such as IT, finance and industrial research and development.