

THE WAY AHEAD

Progress in fusion has been constant in the past years thanks to the world wide research effort.

The recommended forthcoming steps for the development of fusion are:

ITER – the “next step”

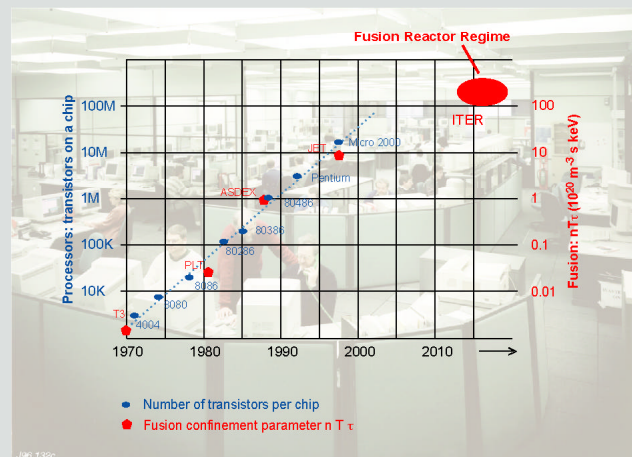
Fusion Power: 500 MW

Long-duration burning plasma

DEMO – the demonstration plant

Fusion Power: 2 GW

Net electricity production



Progress in fusion $nT\tau$ product is comparable to the progress in the performance of microprocessors over the same period

A possible faster track approach to fusion power would require the rapid construction of ITER and IFMIF (a fusion materials testing facility) followed by the production of electricity in the demonstration plant.

DEVELOPMENT AND DEPLOYMENT OF FUSION POWER

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| 2000-2030 | <ul style="list-style-type: none"> • Construction and operation of ITER • Construction and operation of IFMIF • Accompanying R&D to optimise ITER and IFMIF operations, improve materials and plasma regimes, test alternative approaches |
| 2030-2050 | <ul style="list-style-type: none"> • Construction and operation of a plant to demonstrate fusion power • Fusion electricity delivered to the grid • Deployment of a first generation of fusion power plants |
| 2050-2100 | <ul style="list-style-type: none"> • Deployment of a second generation of fusion power plants |