

Forskning og udvikling i almindelighed og drivkraften i særdeleshed

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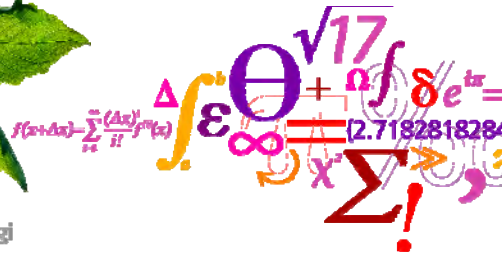
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Forskning og udvikling i almindelighed og drivkraften i særdeleshed

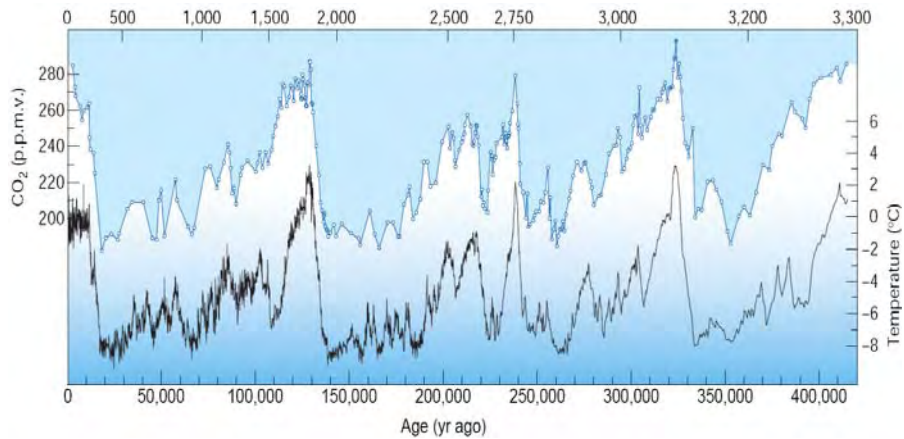
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Risø DTU



Risø DTU
Nationallaboratoriet for Bæredygtig Energi

Nysgerrighed

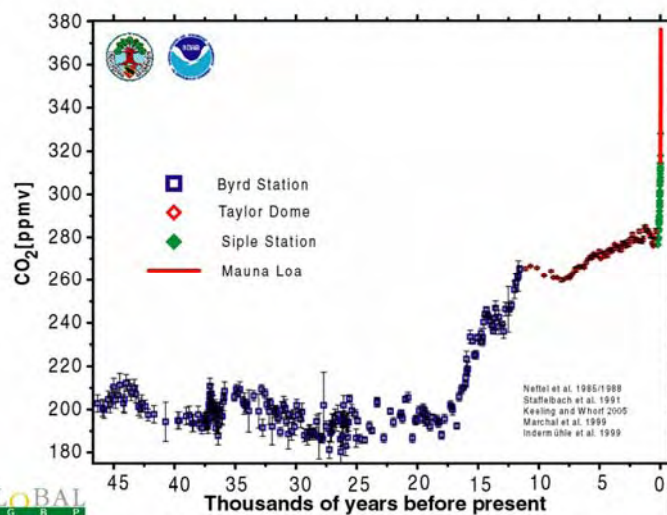
CO₂ koncentration og temperatur de sidste 400.000 år



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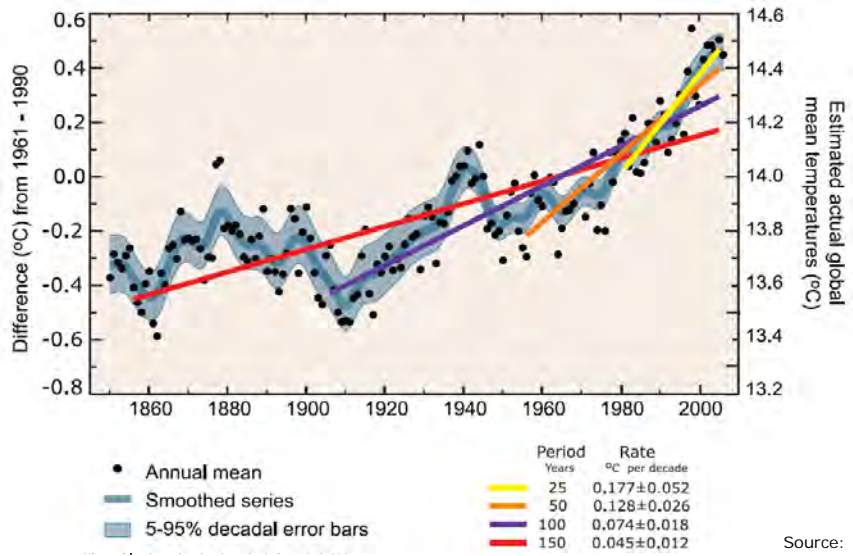
Source: Klump, Nature 419, 200

CO₂ koncentration de sidste 45.000 år



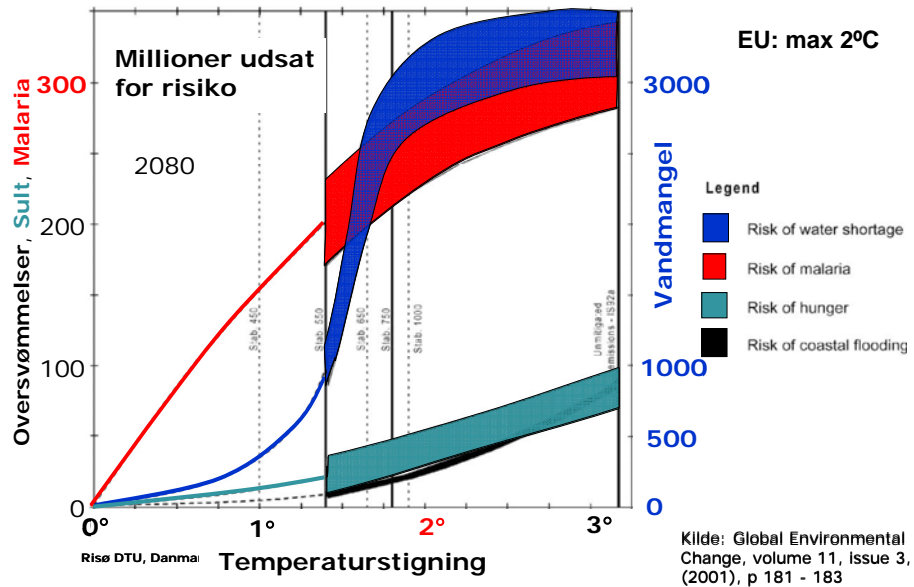
Adapted from: http://www.climate.unibe.ch/gallery_co2.html

Stigninger i temperatur



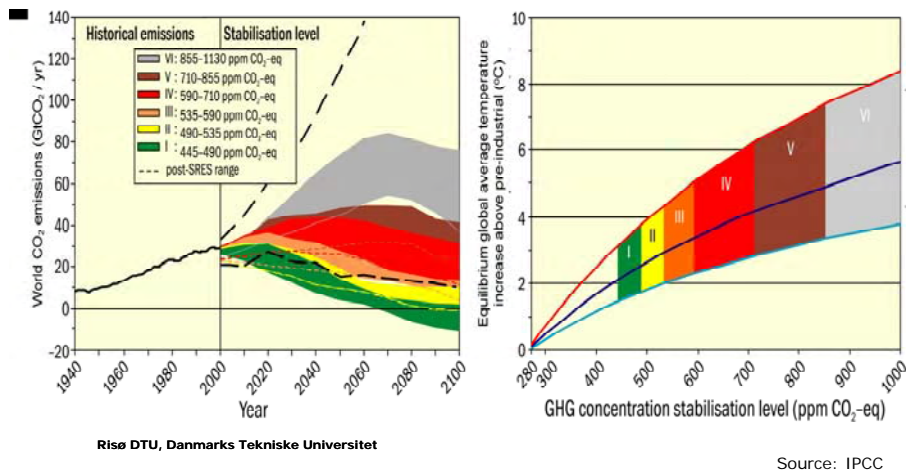
Indsigt

Højere temperatur har store konsekvenser



CO₂ emission, koncentration og temperatur

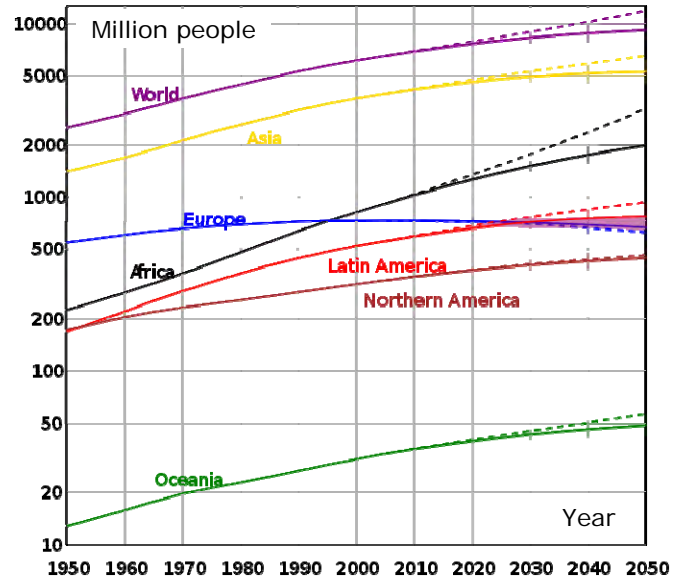
CO₂ emissions and equilibrium temperature increases for a range of stabilisation levels



Befolkningstilvækst



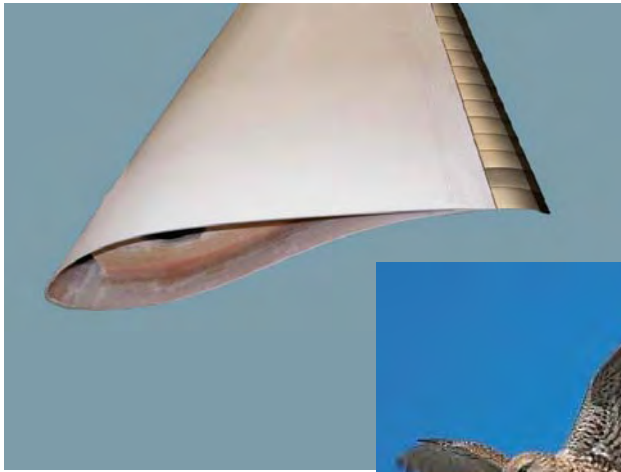
9 milliarder mennesker i 2050



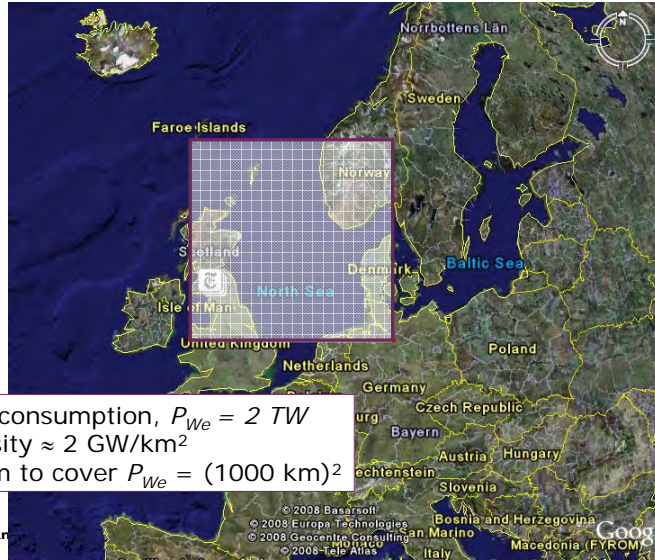
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http://en.wikipedia.org/wiki/Population_growth

Opfindsomhed



Wind farm area to cover World electricity consumption 2008

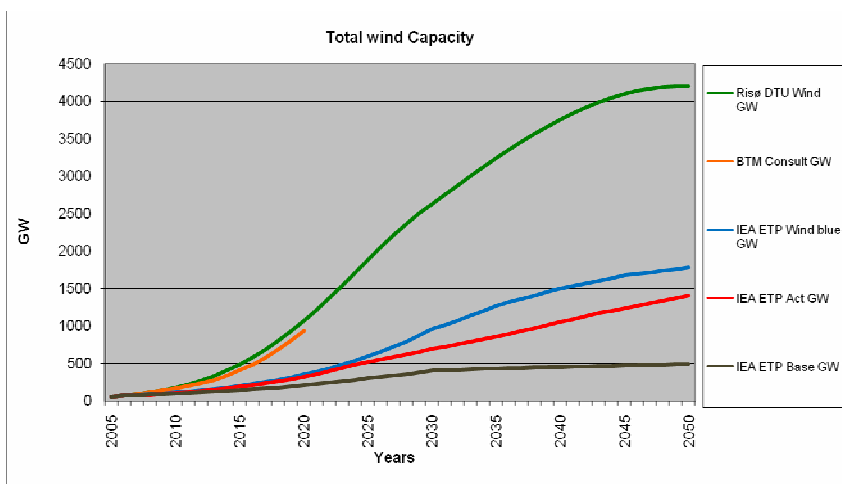


World electricity consumption, $P_{We} = 2 \text{ TW}$
 Wind power density $\approx 2 \text{ GW/km}^2$
 Area of wind farm to cover $P_{We} = (1000 \text{ km})^2$

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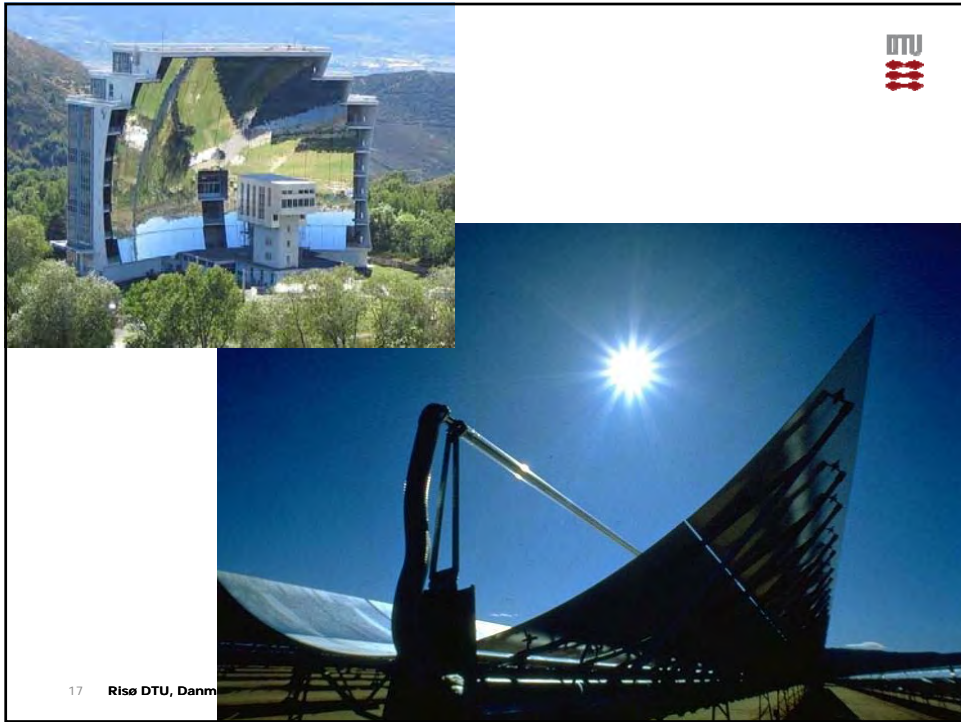
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Wind: Scope



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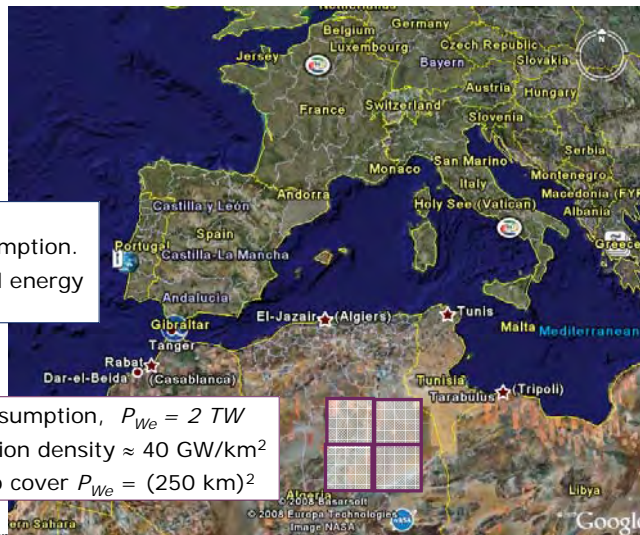


Solar farm area to cover World electricity and energy consumption 2008

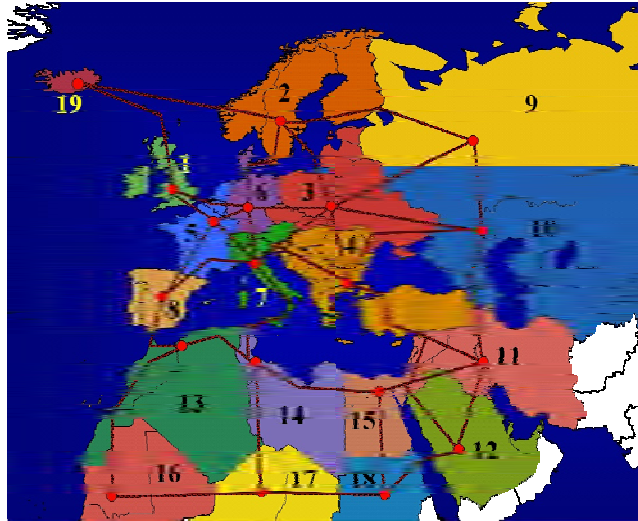


1 square for world electricity consumption.
4 squares for world energy consumption

World electricity consumption, $P_{We} = 2 TW$
Solar power generation density $\approx 40 GW/km^2$
Area of solar farm to cover $P_{We} = (250 km)^2$



HVDC grid



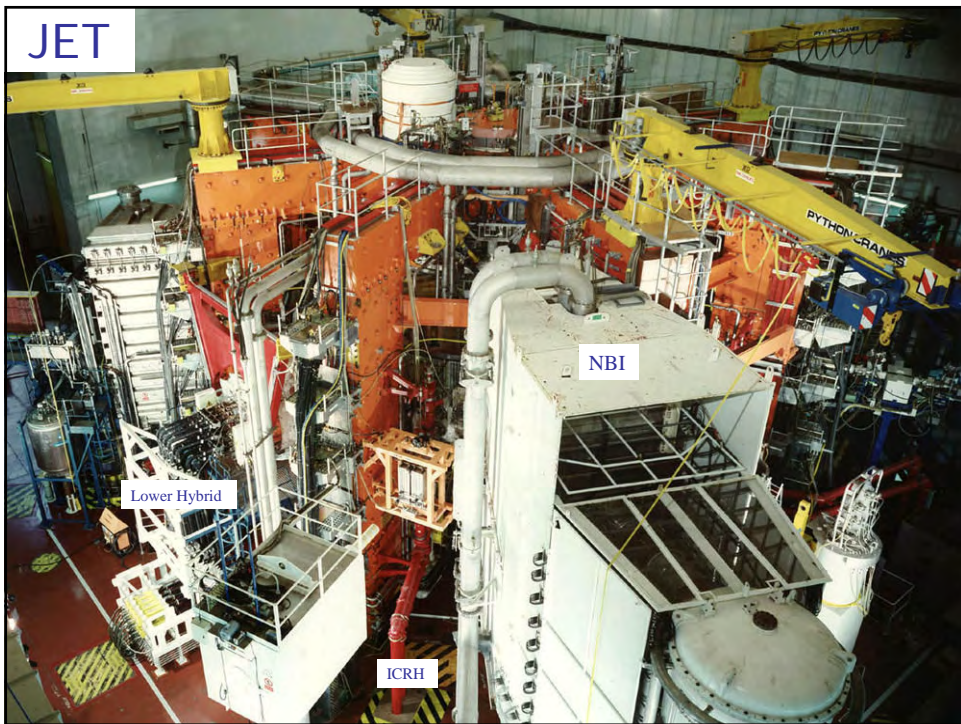
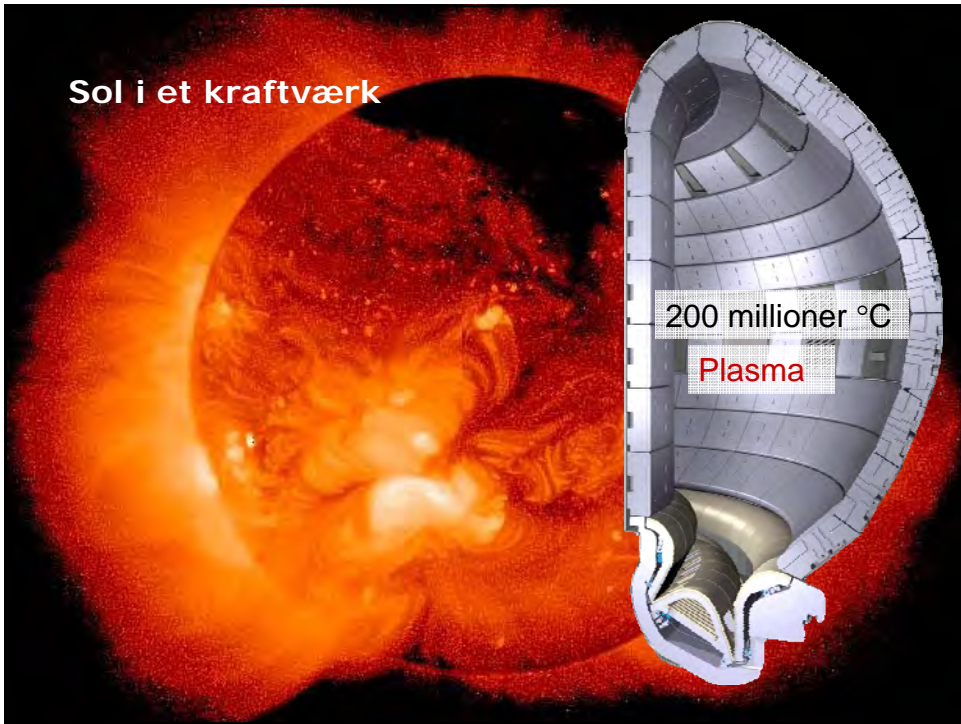
Source: G. Czisch, G. Giebel, May 2007

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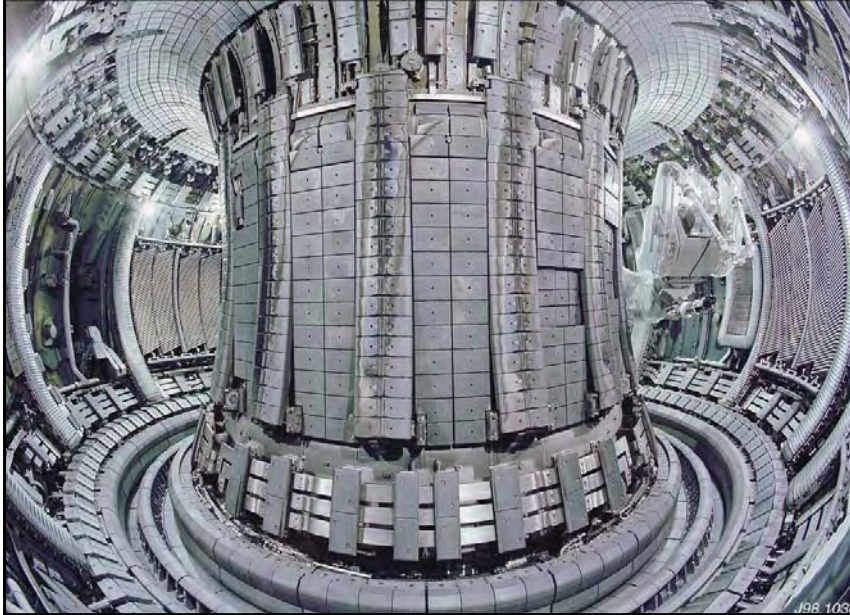
Integration, samspil og genbrug



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Inside JET



Inside JET

200 million °C





Mission



**Nysgerrighed
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