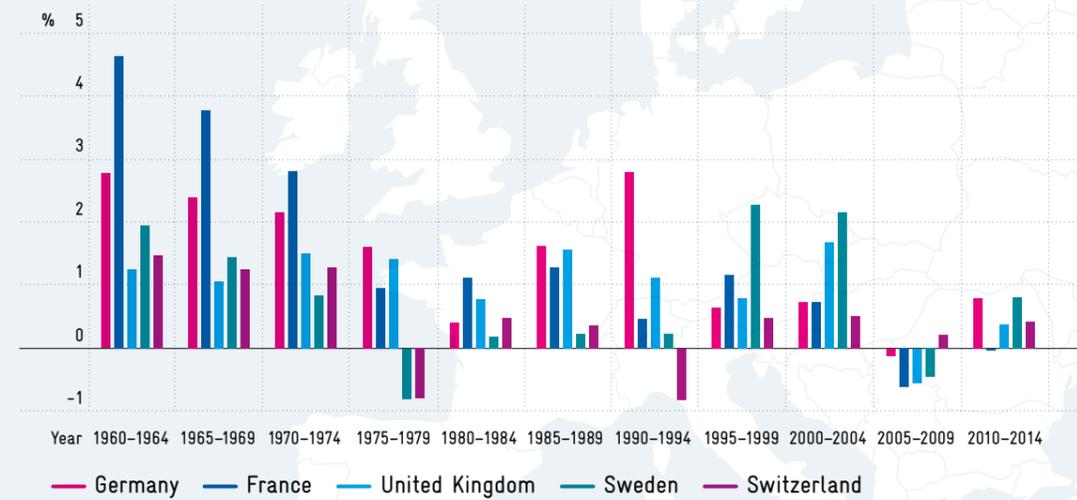


B 1 Long-term developments of productivity and innovation

The pace of growth of macroeconomic productivity indicators has slowed in many developed economies. Parallel to this, some indicators, e.g. the innovator rate, suggest a decline or focusing in innovation activities.

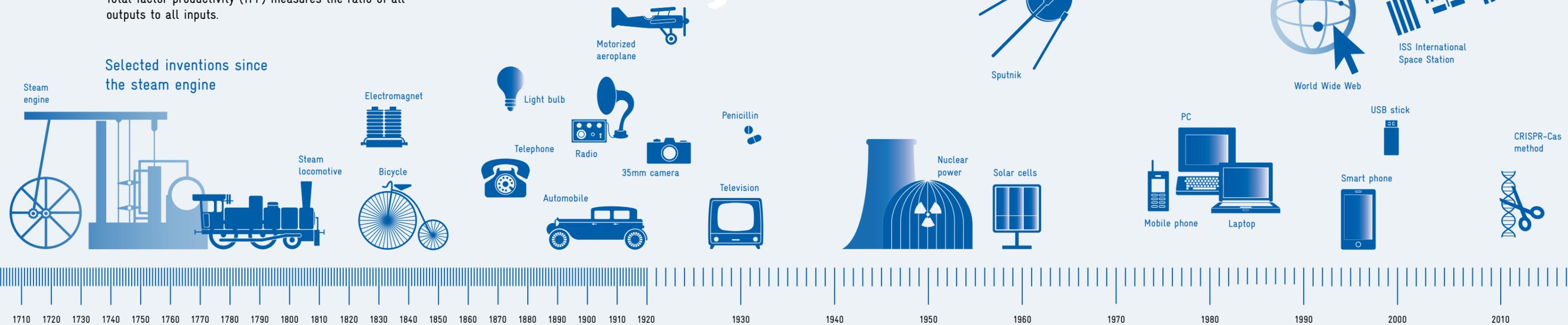
International comparison of TFP growth rates as percentages



Productivity

Total factor productivity (TFP) measures the ratio of all outputs to all inputs.

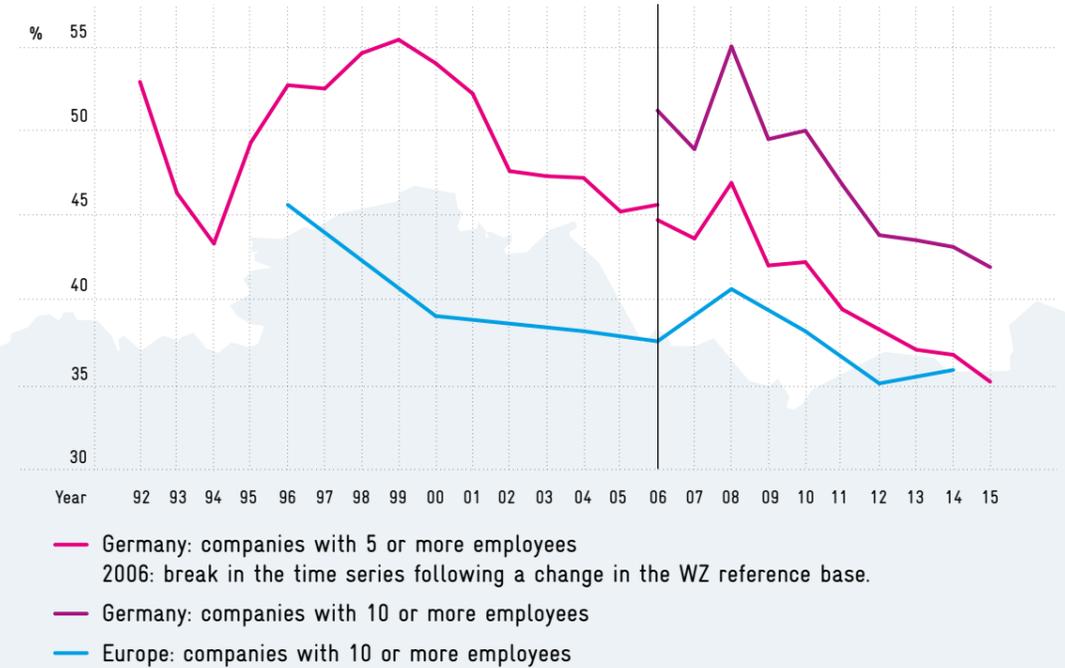
Selected inventions since the steam engine



Innovator rate

The innovator rate is the percentage of companies that have introduced at least one product or process innovation within a three-year reference period.

Development of the innovator rate in Germany and Europe as percentages



Source: Penn World Table 9.0. Cf. Peters et al. (2018). Own calculations.
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Source: Mannheim Innovation Panel and Eurostat, Community Innovation Surveys.
Calculations by ZEW (Centre for European Economic Research).