



## WPW7X in Horizon Europe

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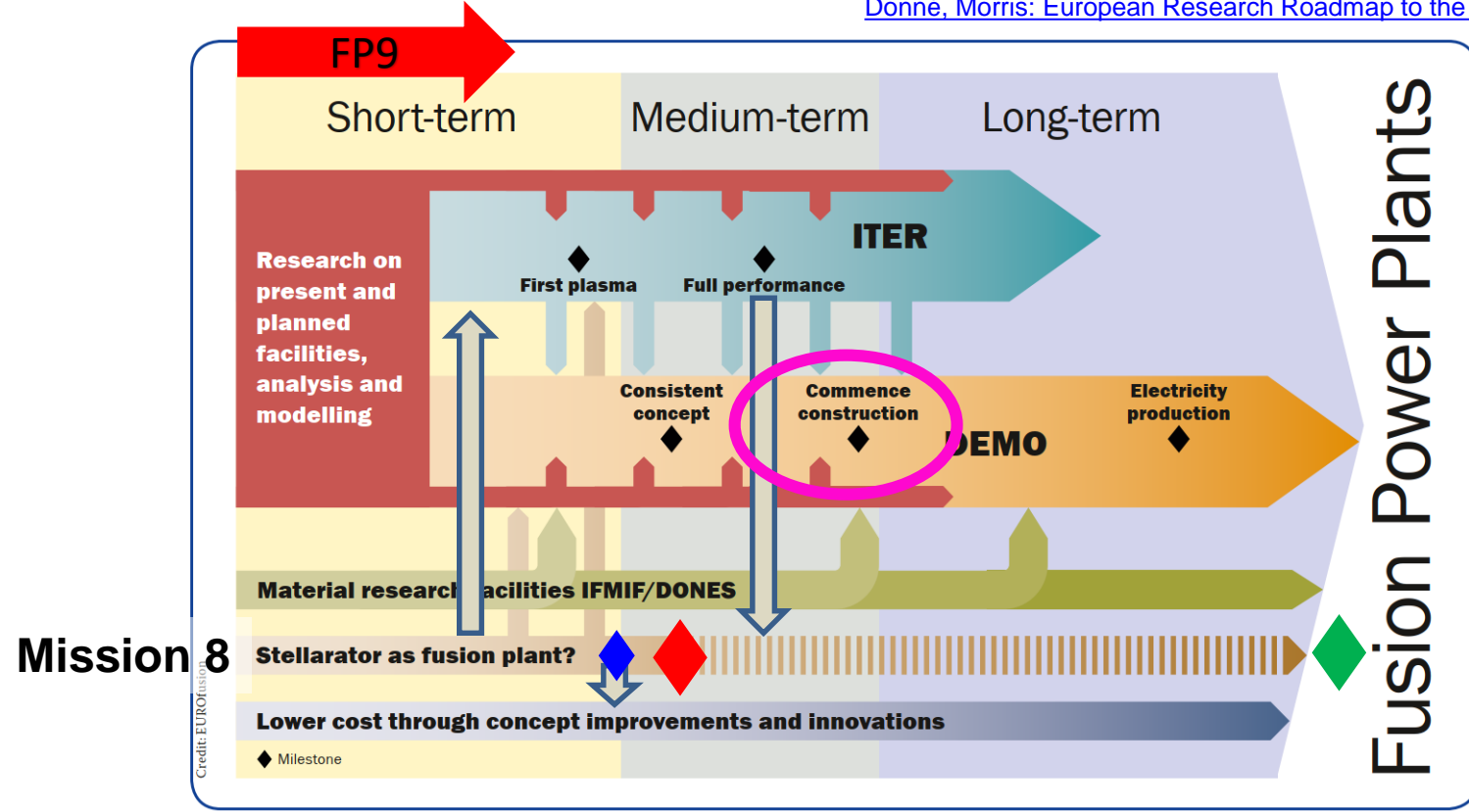
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# Mission 8: bring stellarators to maturity

Donné, Morris: European Research Roadmap to the Realisation of Fusion Energy



◆ **Clear long-term deliverable: optimized-stellarators as Fusion Power Plants**

Synergistic benefits for the Roadmap: strategic risk mitigation, innovation, specific support to ITER and DEMO + 3D-expertise

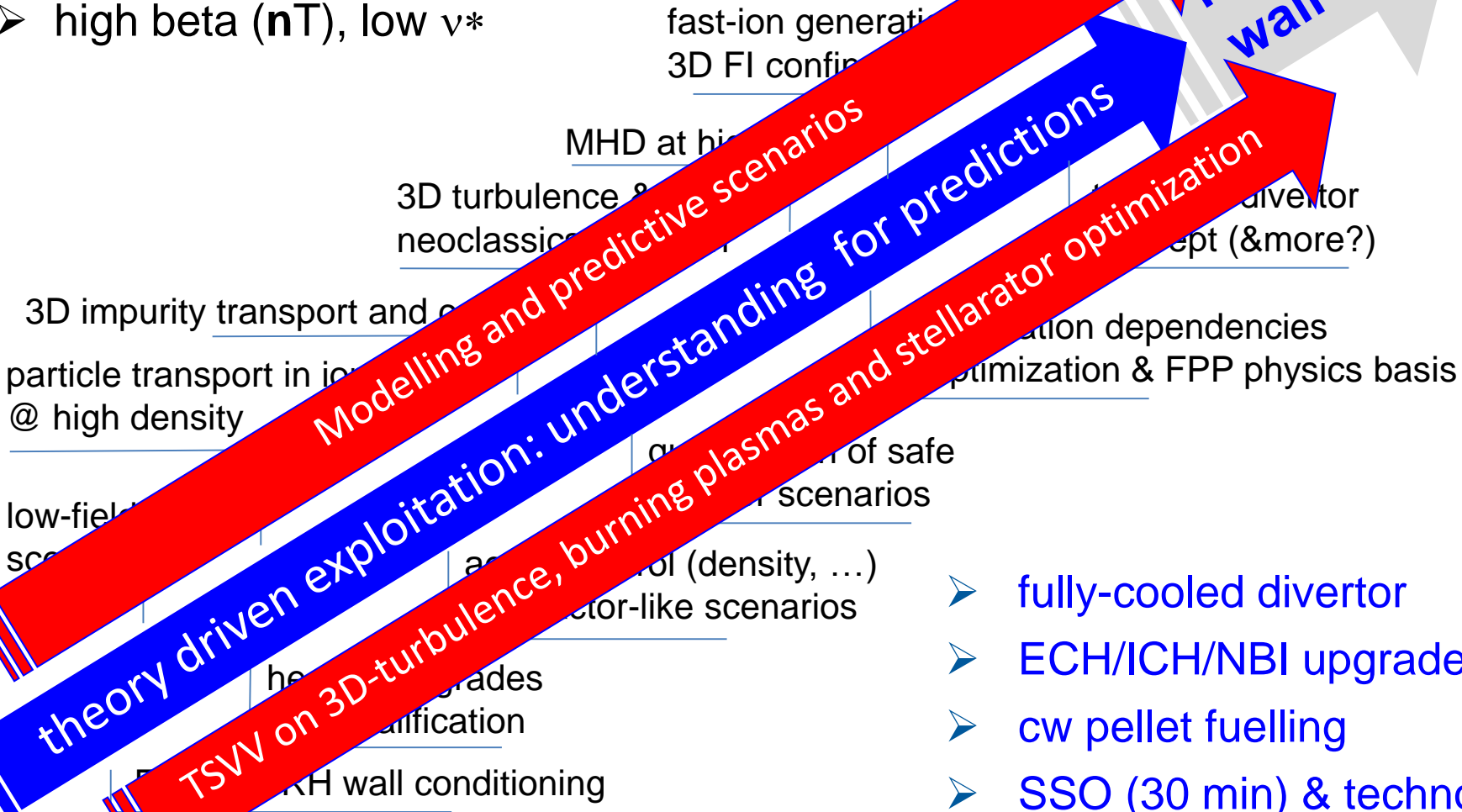
◆ **Prospects of stellarators as an alternative line to fusion electricity**

◆ **How needs a next-step-stellarator-device look like?**



## HELIAS reactor relevant plasmas

- high-performance/long pulse
- high density and  $T_i \sim T_e$ ,
- high beta ( $nT$ ), low  $\nu^*$



- fully-cooled divertor
- ECH/ICH/NBI upgrades
- cw pellet fuelling
- SSO (30 min) & technology

# Key players in Mission 8

