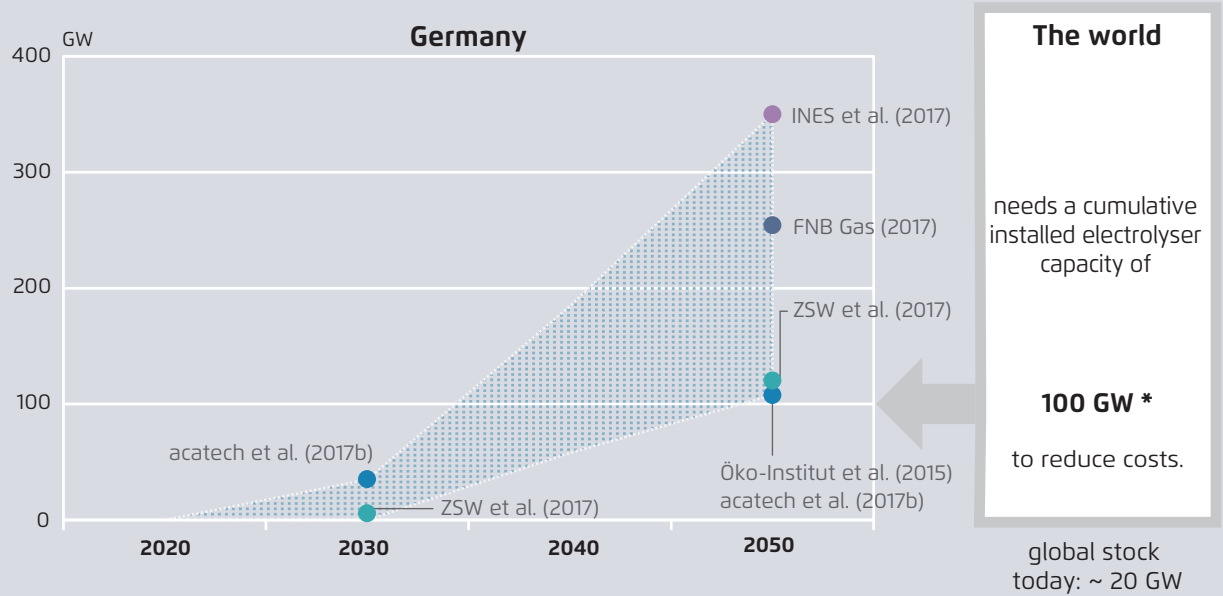
Installed electrolysis capacity for PtG and PtL in scenarios for Germany, and cumulative installed global electrolysis capacity for cost reduction in gigawatts

Figure 6



Scenarios for Germany: acatech et al. (2017b): "90 offen" is based on a 90% reduction of greenhouse gases by 2050 relative to 1990 levels without fuel imports; FNB Gas (2017): "Strom und Grünes Gas" is based on a 95% reduction of greenhouse gases by 2050 relative to 1990 levels and a full import of liquid synthetic fuels; INES et al. (2017): "Optimiertes System" is based on complete greenhouse gas neutrality by 2050 without energy imports and exports; Öko-Institut et al. (2015): "Klimaschutzszenario-95" is based on a 95% reduction of greenhouse gases by 2050 relative to 1990 levels and 143 terawatt hours of imported synthetic fuels; ZSW et al. (2017): "DE_95 % max".

* Own calculations based on the optimistic cost pathway from Frontier Economics (2018); starting value in 2014: 0.03 gigawatts of power-to-gas facilities in Germany; learning rate: 13% (FENES et al. 2014)

Own illustration