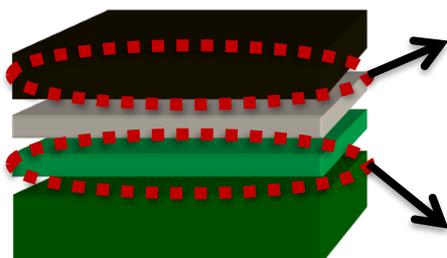




Milestone: Improved cell with ASR $< 0.2 \text{ Ohm cm}^2$ at $750 \text{ }^\circ\text{C}$

The decrease of the area specific resistance (ASR) of SOEC allows for decreasing the operating temperature – here by 50-100 $^\circ\text{C}$, which decreases thermally activated degradation processes thereby leading to longer lifetimes.



Cell	Improved electrode	Fuel vs. oxygen electrode gas	ASR at $750 \text{ }^\circ\text{C}$ in Ohm cm^2
State of the art	(HTc)		0.40
ECo version 1	Oxygen electrode LSCF/CGO (CEA)	90% H_2O +10% H_2 vs. air	0.27
State of the art	(HTc)		0.28
ECo version 2	Fuel electrode Ni/YSZ (DTU)	50% H_2O +50% H_2 vs. O_2	0.20



Milestone: Improved cell with ASR $< 0.2 \text{ Ohm cm}^2$ at $750 \text{ }^\circ\text{C}$

