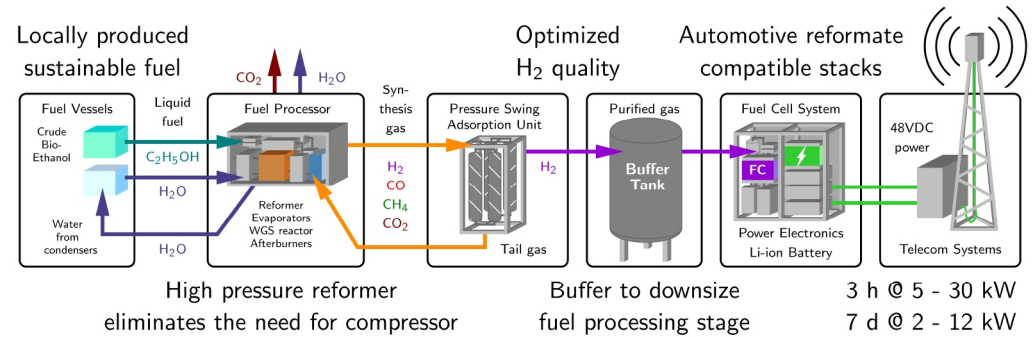


# PEMBeyond

PEMFC system and low-grade bioethanol processor unit development for back-up and off-grid power applications



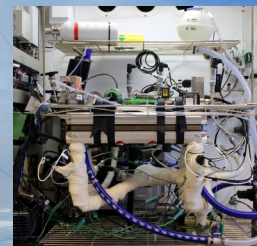
## Development and validation of a crude bioethanol fuelled power system



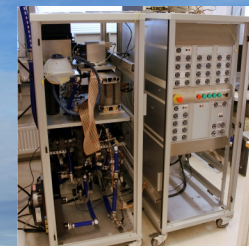
Need for reliable, cost-competitive and environmentally sound solutions in back-up and off-grid applications is growing. With falling power demands in 4G networks, fuel cells are becoming an attractive option, but fuel logistics are still an issue. Our approach relies on crude bioethanol reformation, allowing the direct use of easily transported and stored, locally and affordably produced low emission fuel.

Targets for the integrated 5 kW prototype system:

- Energy efficient (> 30%)
- Cost competitive (< 2 500 €/kW @ 500 units)
- Running on crude (80-95%) bioethanol
- Field trial of 1000 hours



Hydrogen quality optimization



Fuel Cell System development



Fuel Processor and PSA development



System integration and field trials

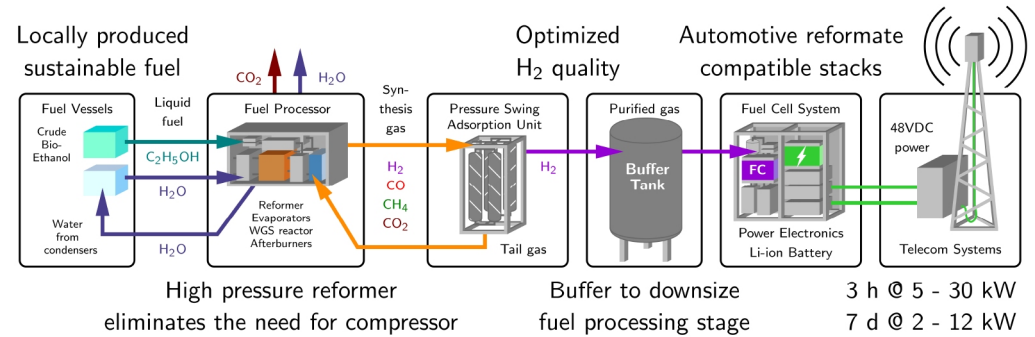


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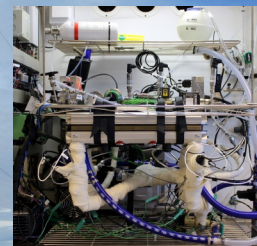
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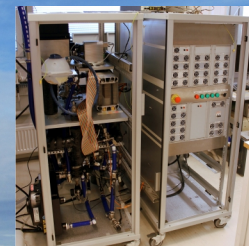
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