

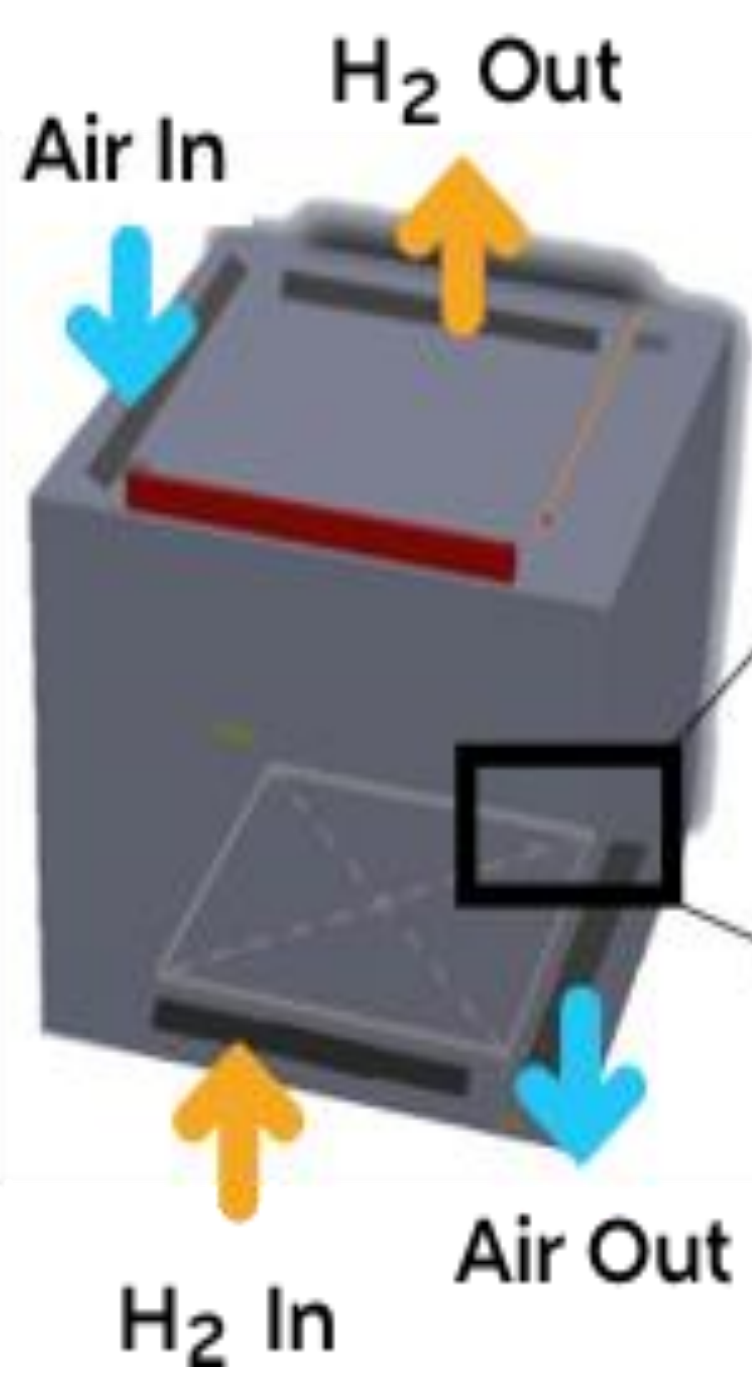


COST-EFFECTIVE AND FLEXIBLE 3D PRINTED SOFC STACKS FOR COMMERCIAL APPLICATIONS

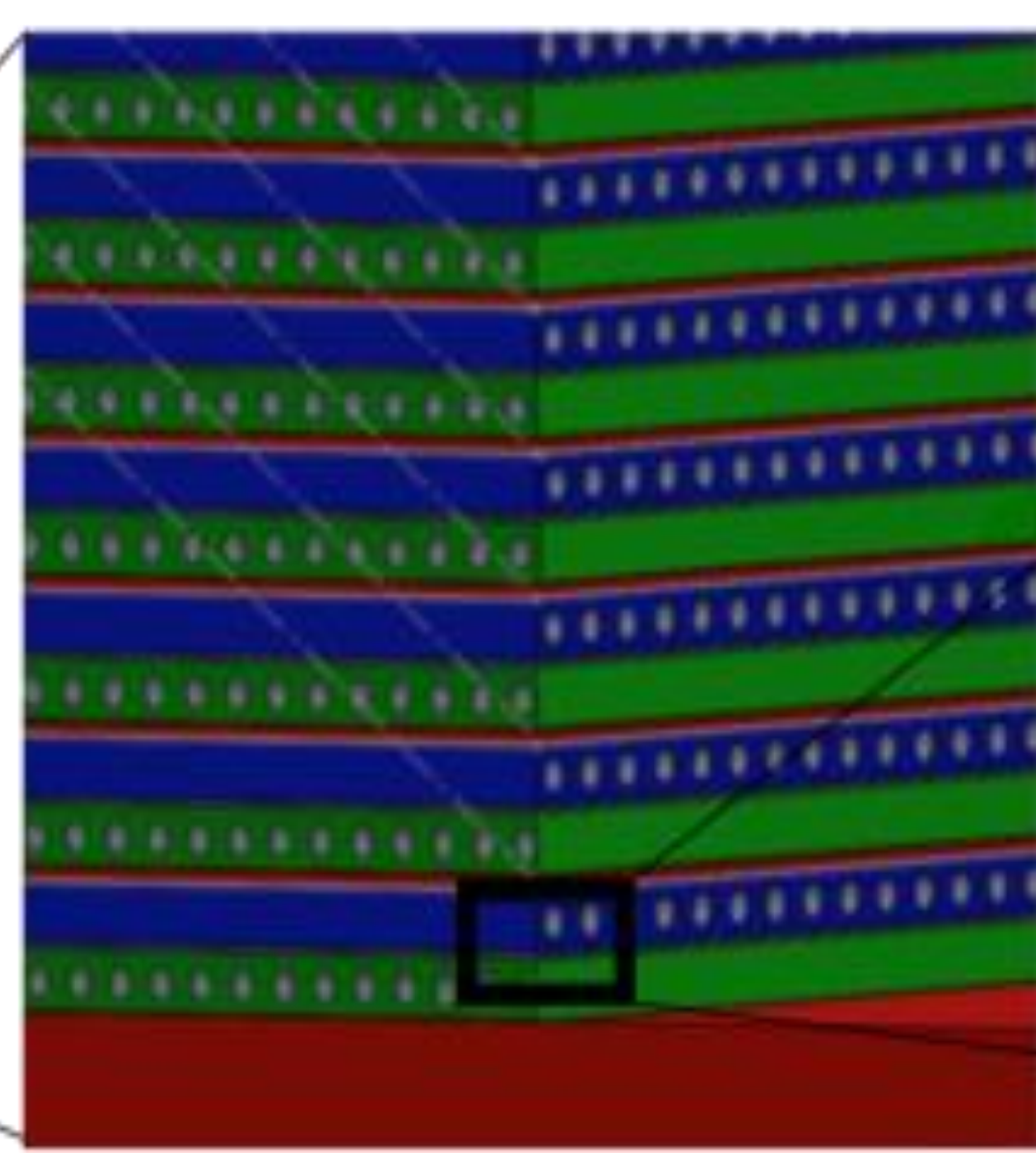
MOTIVATION

Development of 3D printing technology for industrial production of SOFC stacks

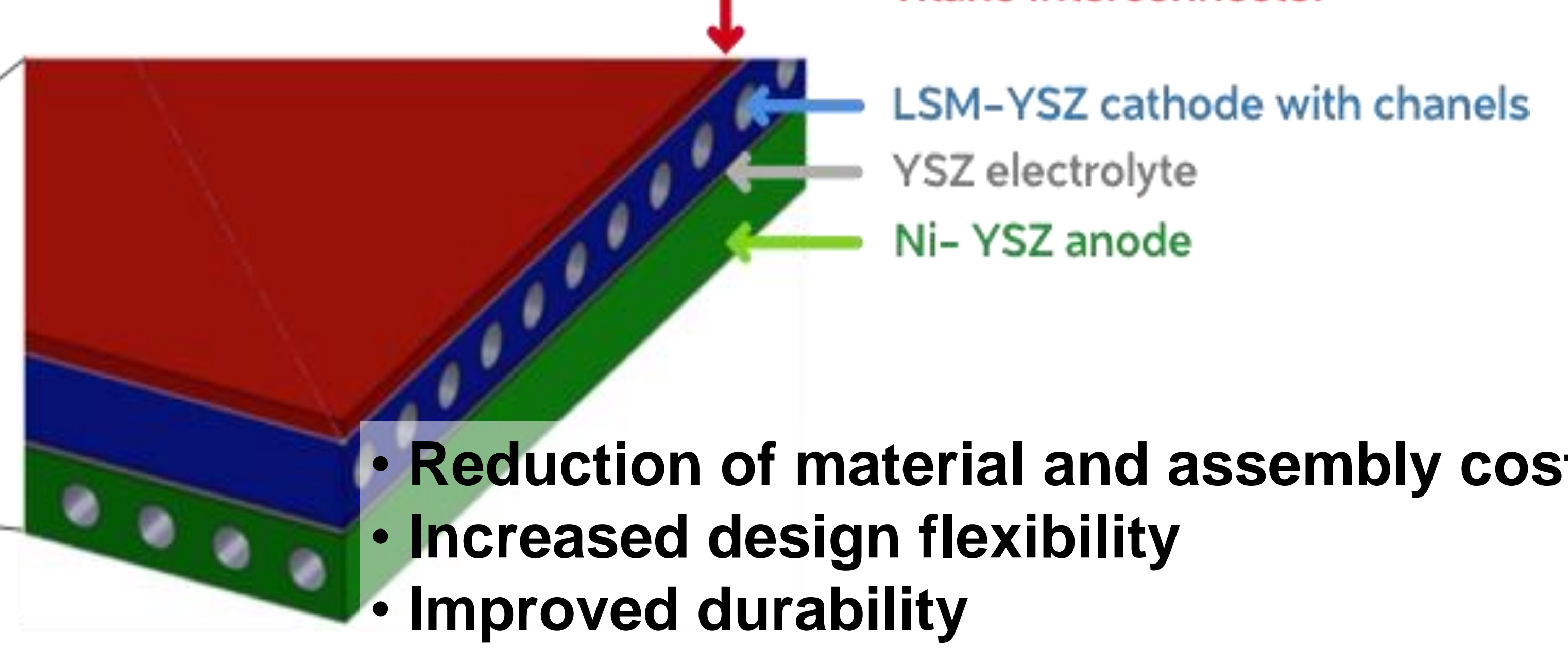
MONOLITHIC SOFC



JOINT-FREE STACK



SINGLE REPEATING UNIT

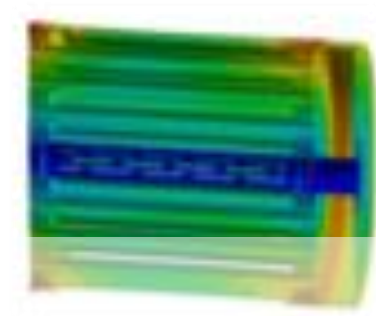


- Reduction of material and assembly cost
- Increased design flexibility
- Improved durability

CELL3DITOR CONCEPT

Two-steps digital fabrication of SOFC stacks

CDF simulation of the SOFC stack



SOFC stack CAD design



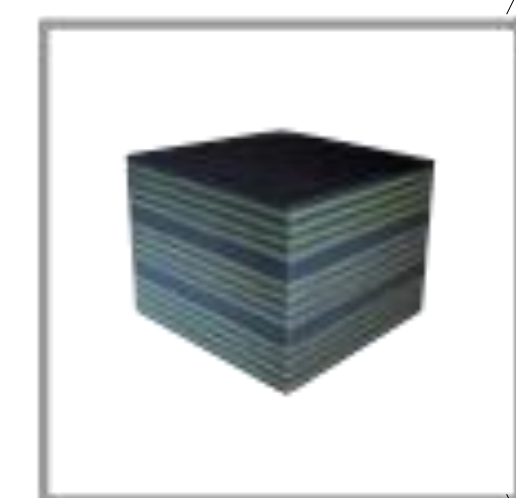
3D printing of the SOFC stack



Single-steps sintering



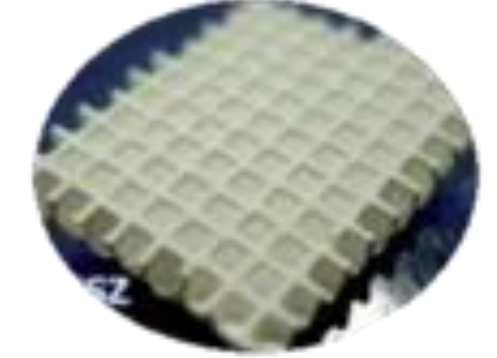
SOFC stack



Monolithic



Embedded architecture



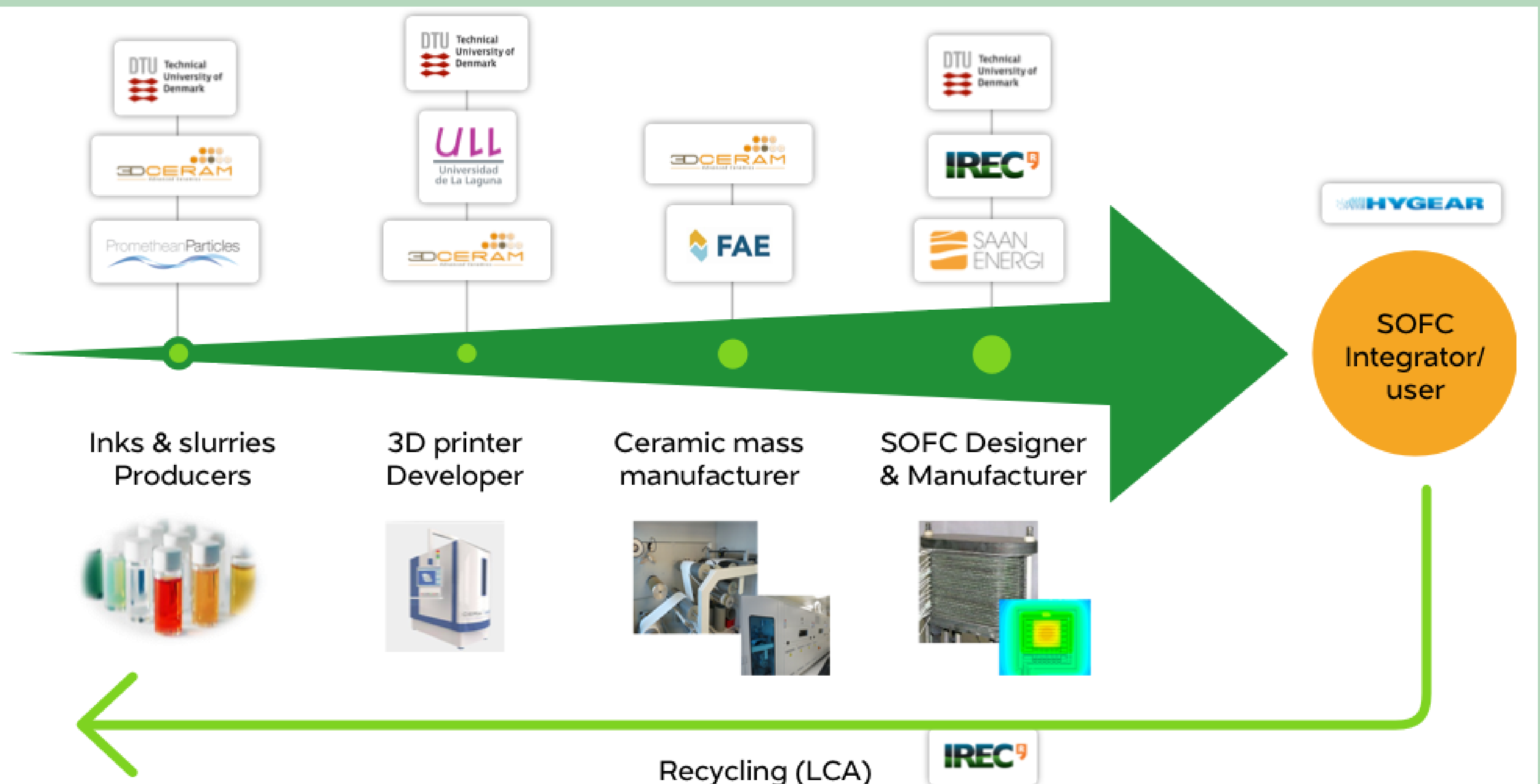
Flexible design



PRODUCT-ORIENTED

R&D in all stages of the value chain

- Printable inks and slurries
- Multi-ceramics 3D printer
- Mass manufacturing of complex ceramics
- Two-step fabricated SOFC stacks
- System integration



Title: Cost-effective and flexible 3D printed SOFC stacks for commercial applications

Acronym: Cell3Ditor
 Call/Topic: FCH-02.6-2015
 Duration: 42 months
 Funding: 2,180,662.50 €
 Partners:



www.cell3ditor.eu



@cell3ditor

