

WEBINAR

SOLUCIONS INNOVADORES PER AL SECTOR DE LA
BIOENERGIA

*CO-ELECTROLISIS D'ALTA TEMPERATURA PER RUTES
POWER TO FUEL O POWER TO GAS (TO POWER)*

Marc Torrell Faro, Investigador Senior



Nanoionica i Piles de Combustible: IREC

25+ M€
in projects
since 2010



11

RESEARCHERS



1

RESEARCH FACILITIES
MANAGER



7

POSTDOCS



16

PHD STUDENTS



140

PUBLICATIONS



19

THESIS



7

PATENTS



60

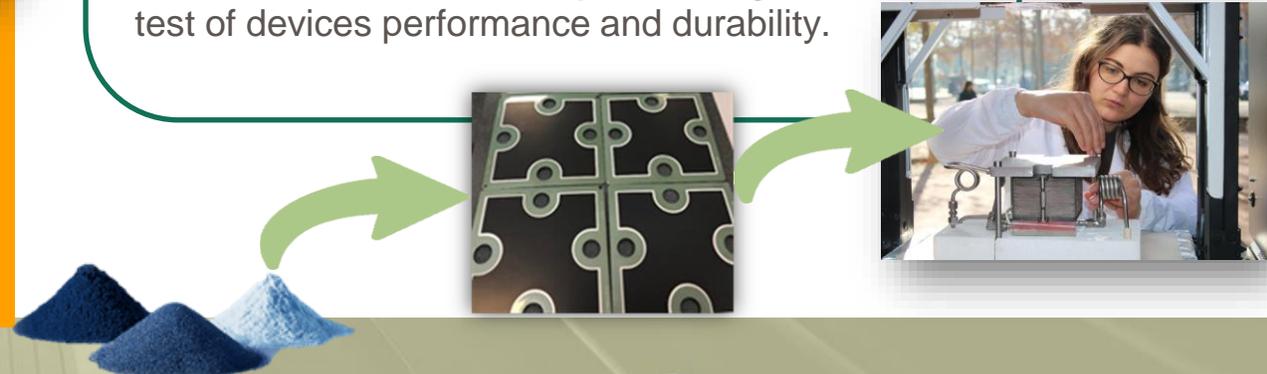
INVITED TALKS

Short description of the activities



The group is focused on the use of **hydrogen for clean power generation** (fuel cells) and the **storage of electricity in the form of renewable gases** (H₂ production by steam electrolysis).

The team is developing new technology of highly efficient **solid oxide fuel and electrolysis cells** to build up stacks and integrate them into systems. With almost two decades of experience in this field, our team covers from the implementation of new materials and novel fabrication processes for the stack fabrication and system integration to the test of devices performance and durability.

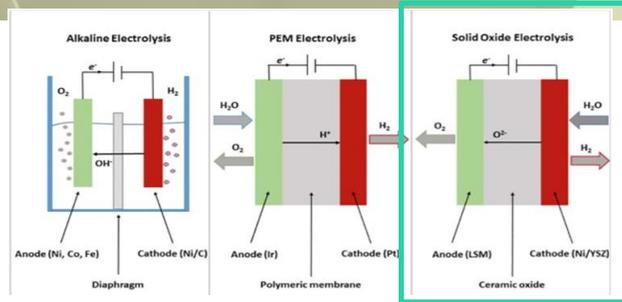
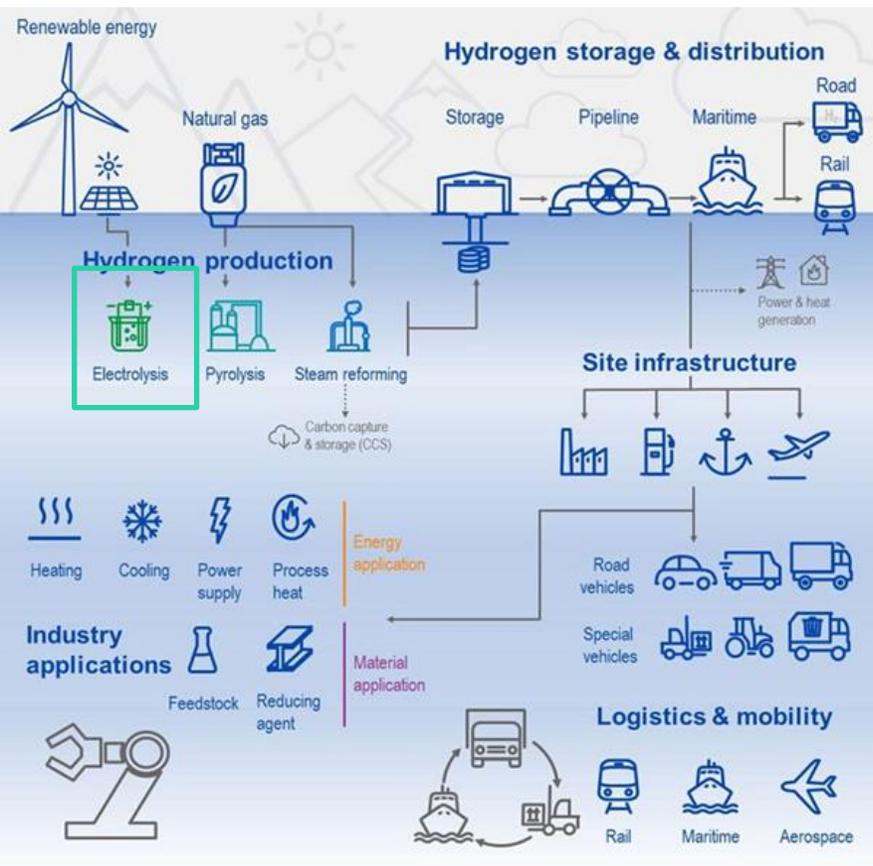


SOLUCIONS INNOVADORES PER AL SECTOR DE LA
BIOENERGIA

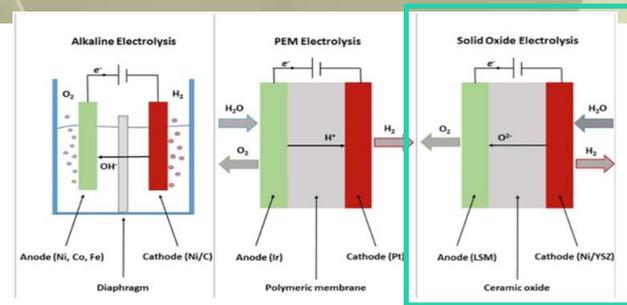
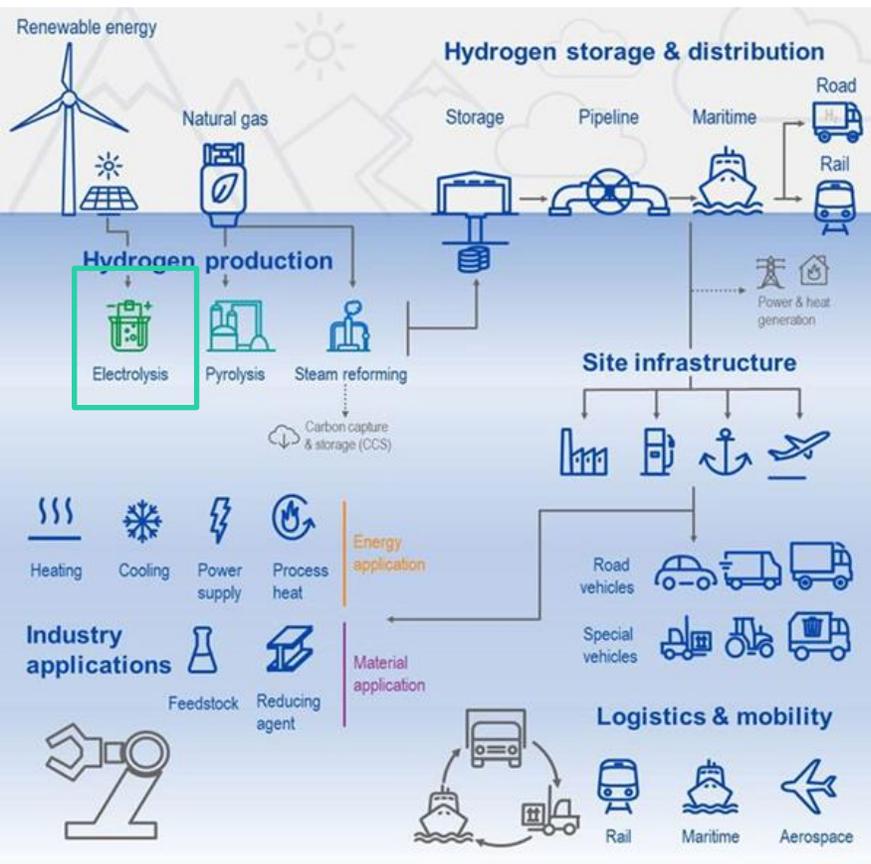


PLAANUAL
DE TRANSFERÈNCIA TECNOLÒGICA

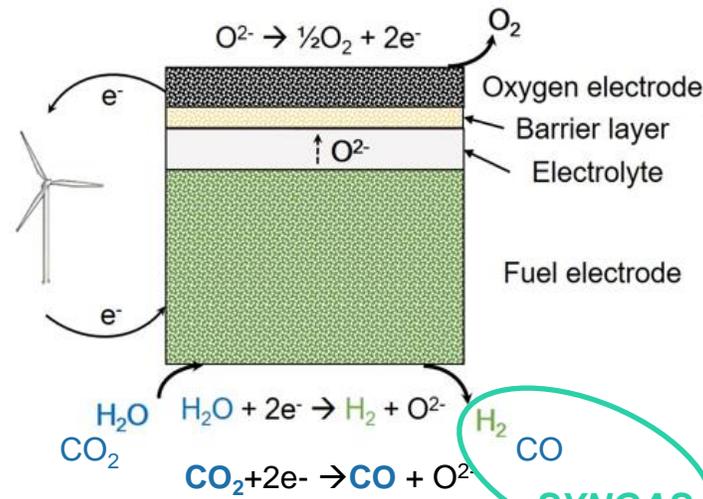
Co-electròlisi com a tecnologia Power-to-Gas or Power to Liquid (P2x)



Co-electròlisi com a tecnologia Power-to-Gas or Power to Liquid (P2x)



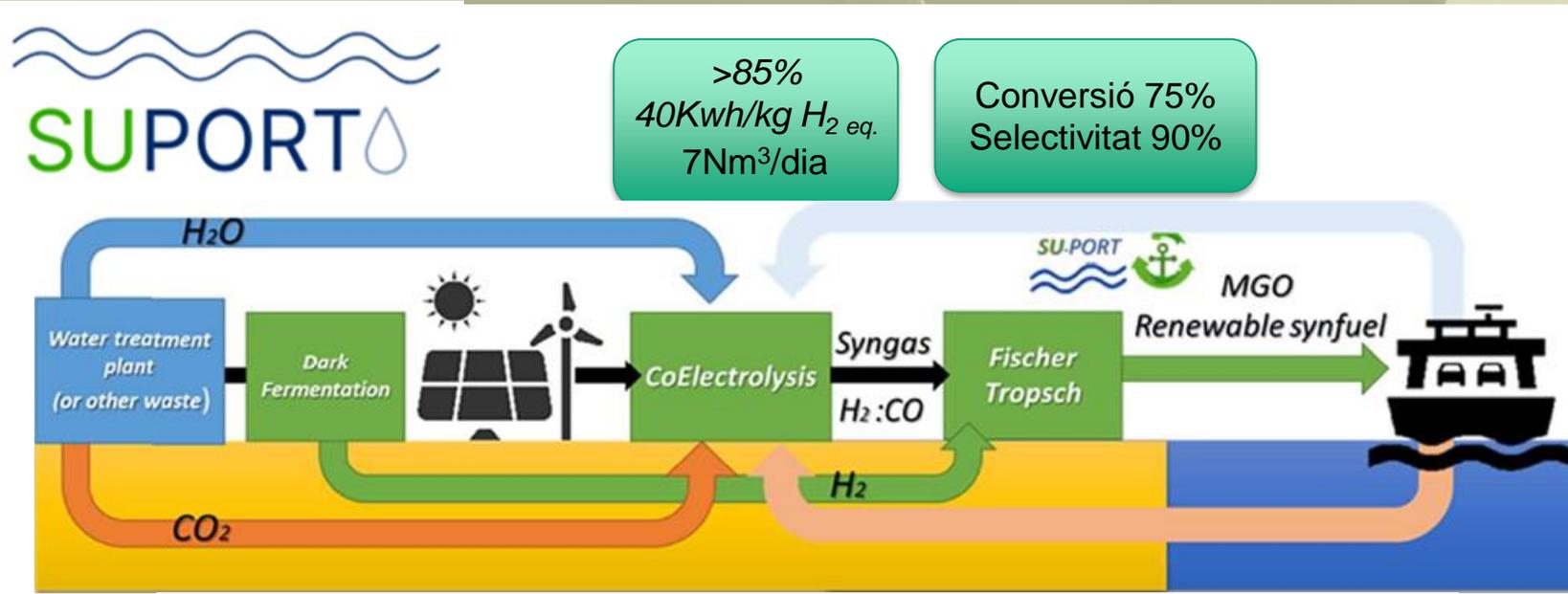
Solid Oxide Electrolysis Cell



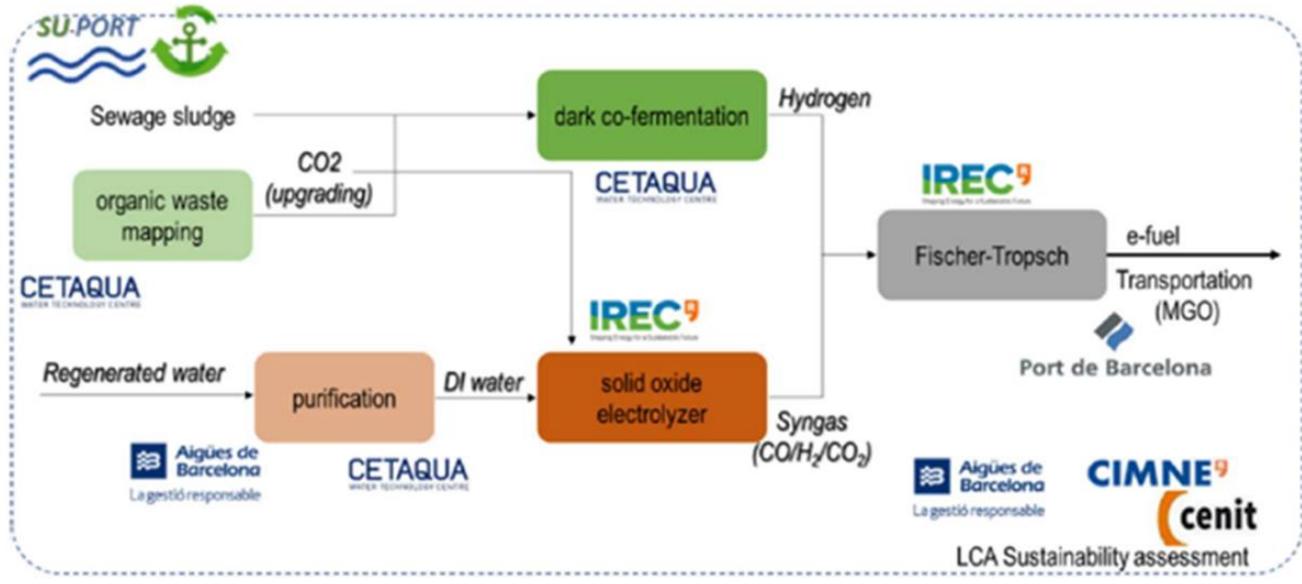
Precursor de combustibles sintètics (Metà, Metanol, Diesel, Etc...)



Co-electròlisi com a tecnologia Power to Liquid (P2x)



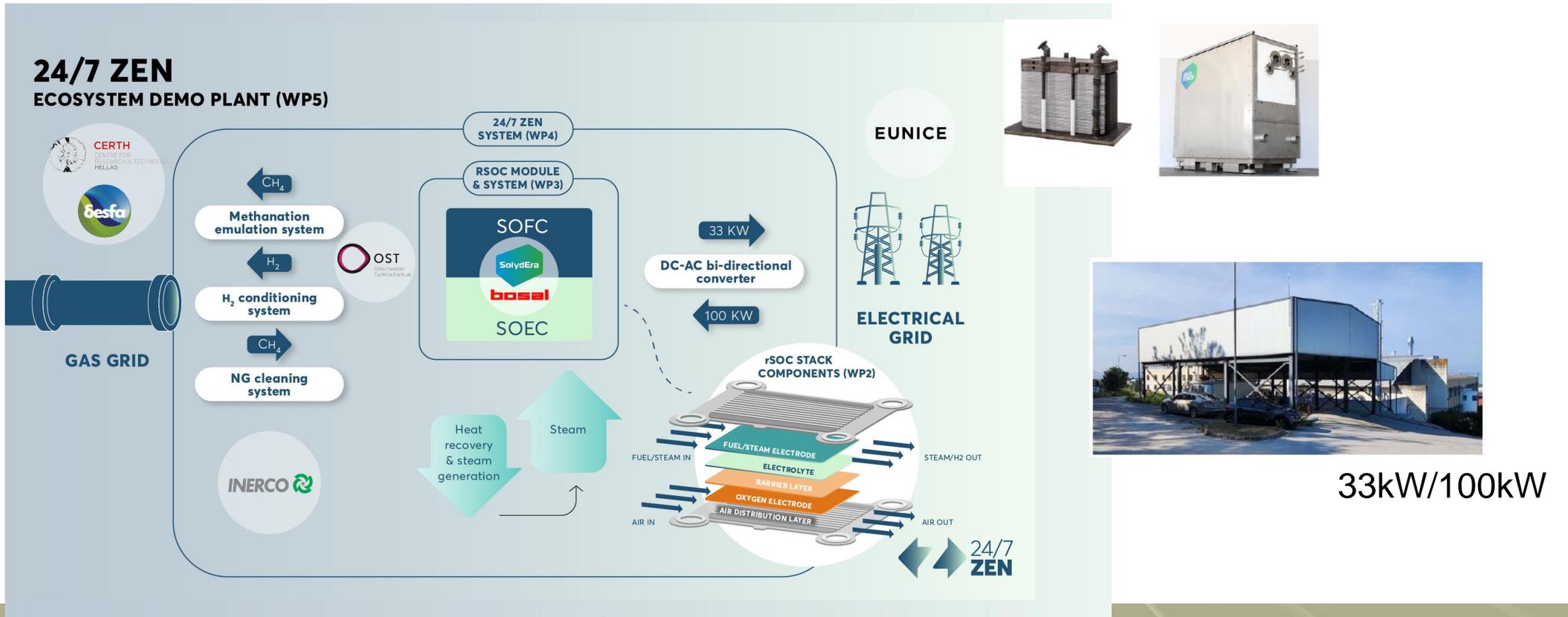
a)



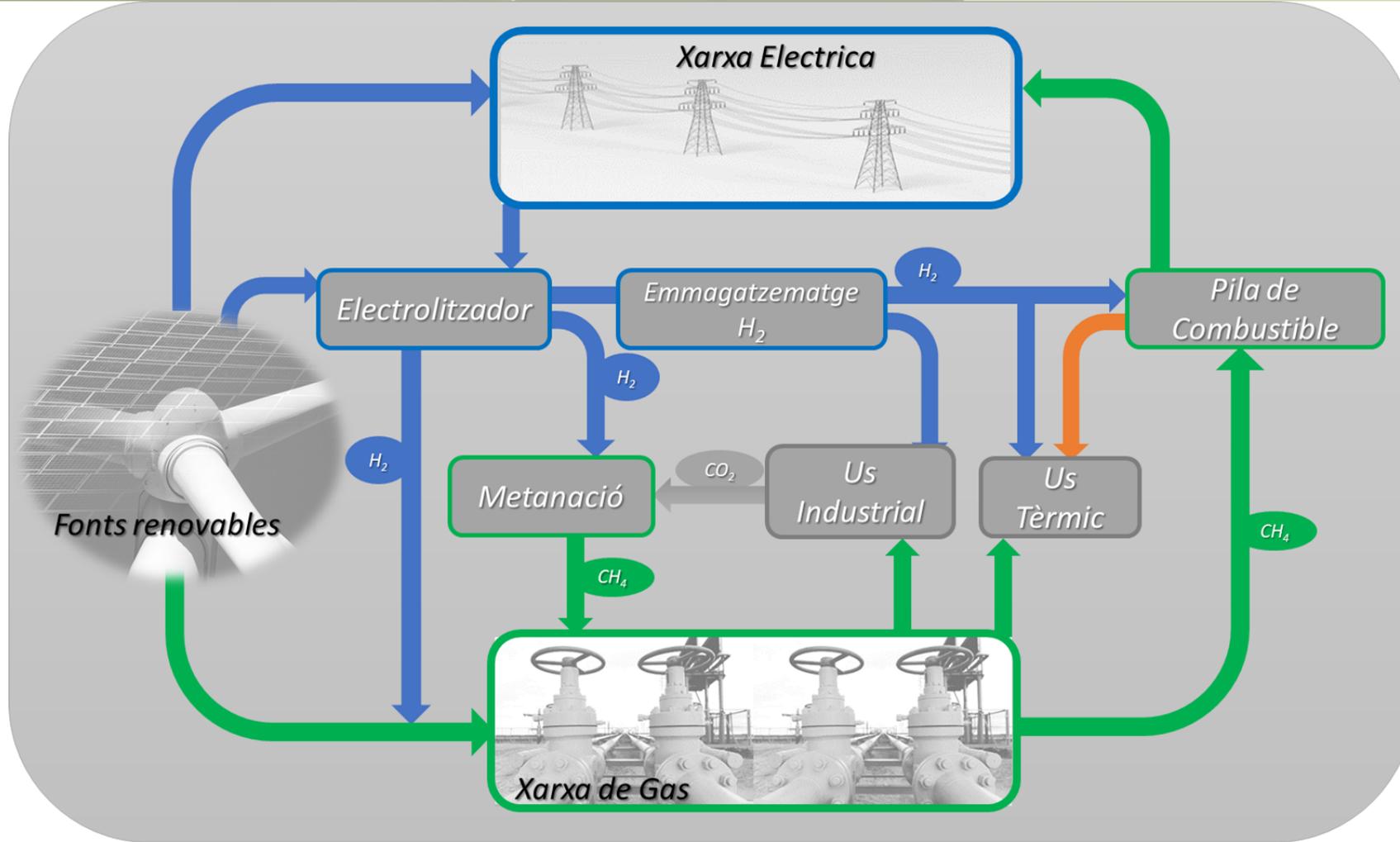
Co-electròlisi com a tecnologia Power-to-Gas-to-Power



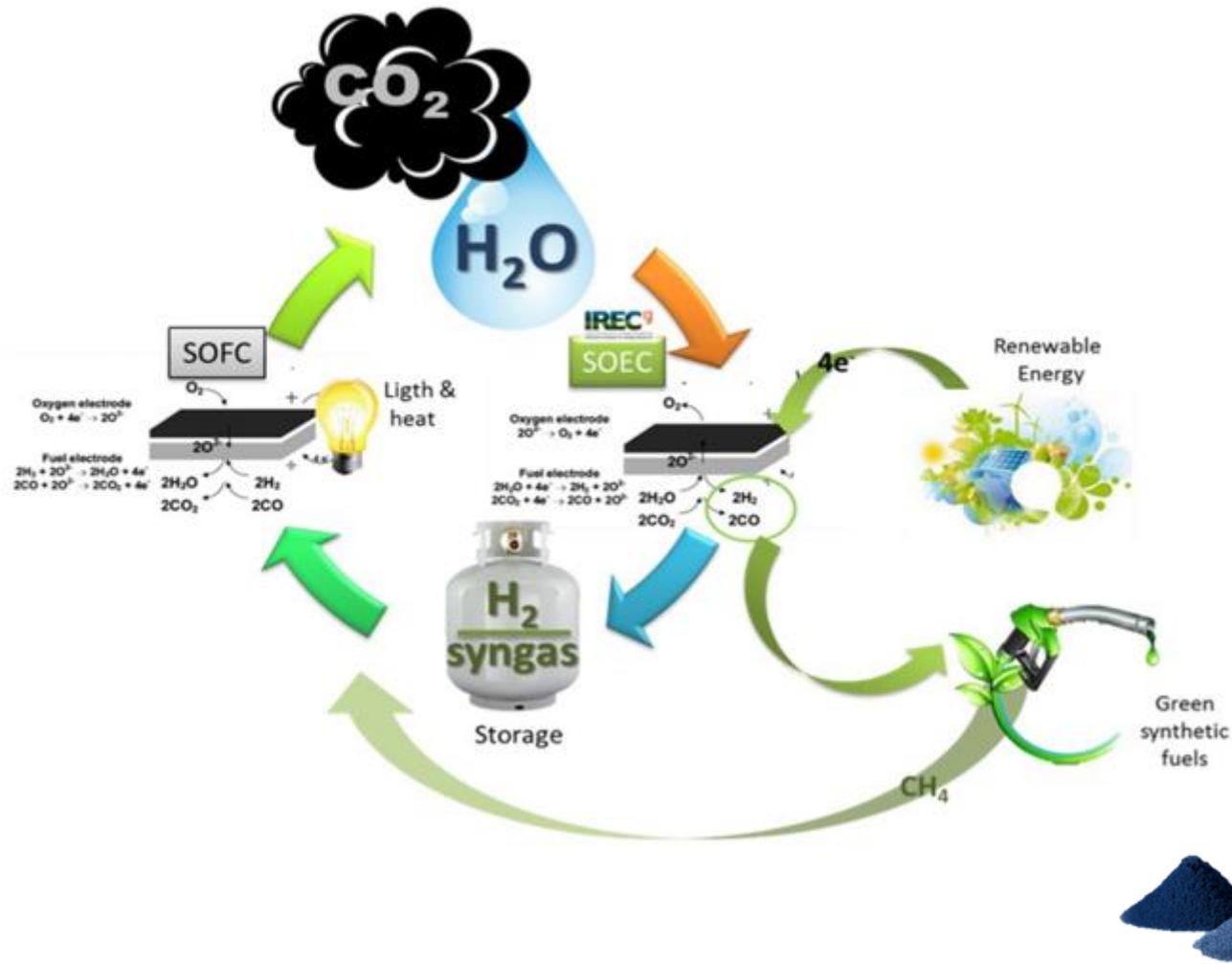
Tecnologia SOC reversible com a balanç de xarxa elèctrica/gas



Co-electròlisi com a tecnologia Power-to-Gas

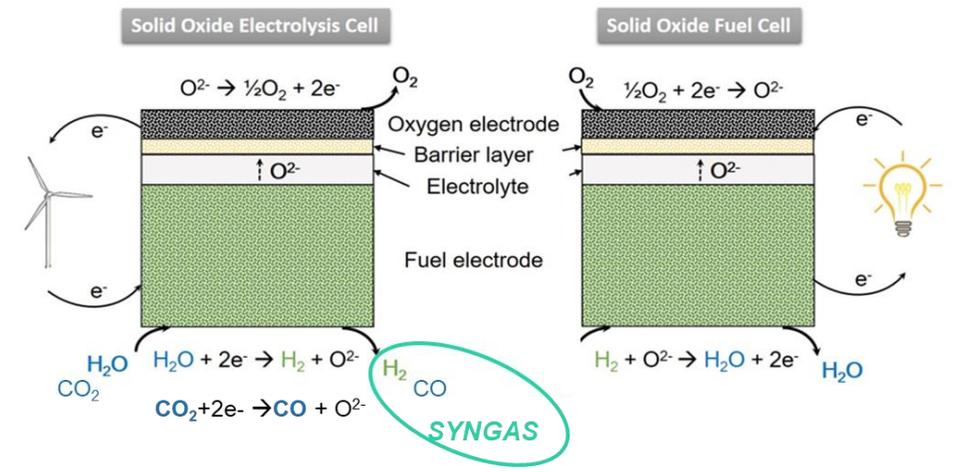


Col·laboracions Potencials



SOEC
(Chemical Energy Storage)

SOFC
(Power Generation)



SOLUCIONS INNOVADORES PER AL SECTOR DE LA BIOENERGIA



PLAANUAL DE TRANSFERÈNCIA TECNOLÒGICA



WWW.IREC.CAT

WWW.ATLAB.ES



Marc Torrell Faro
Staff Scientist



Albert Tarancon Rubio
ICREA Research Professor
Group Leader of Nanoionics and Fuel Cells



Lucile Bernadet
Postdoctoral Researcher
Project engineer

Albert Tarancon's GROUP

HOME RESEARCH PUBLICATIONS TEAM FACILITIES GALLERY NEWS & HIGHLIGHTS CONTACT US / OPEN POSITIONS

ALBERT TARANCON'S GROUP

Meet the team



Albert Tarancon
Group Leader

Albert holds M.Sc. and PhD in Physics from the University of Barcelona (2001, 2007) and M. Eng. in Materials Science from the Polytechnic University of Catalonia (2007). He worked as research associate at the IMB-CSIC (ES) and as visiting...



Alex Morata
Senior Scientist

Alex Morata received his M.Sc. in Physics from the University of Barcelona in 2002, where he also carried out his Ph.D. in Physics. He has worked...



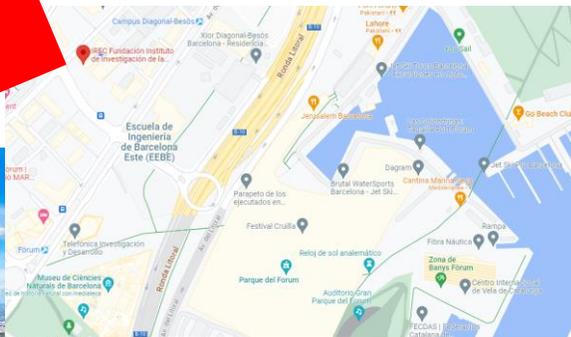
Marc Torrell
Senior Scientist

Marc Torrell received his Chemistry degree in 2004 and the PhD in 2008 in Material Science at the University of Barcelona. In 2011 received his...



Lucile Bernadet
Research Scientist

Lucile Bernadet was graduated in 2013 as engineer specialized in storage and co-conversion of energy from the Graduate School of Chemistry, Physics...



Jardins de les Dones de Negre 1, 2^a pl.
08930 Sant Adrià del Besòs
Barcelona, Spain ([map](#))
T. [+34 933 562 615](tel:+34933562615)



Marc Torrell Faro
mtorrell@irec.cat



SOLUCIONS INNOVADORES PER AL SECTOR DE LA BIOENERGIA

