

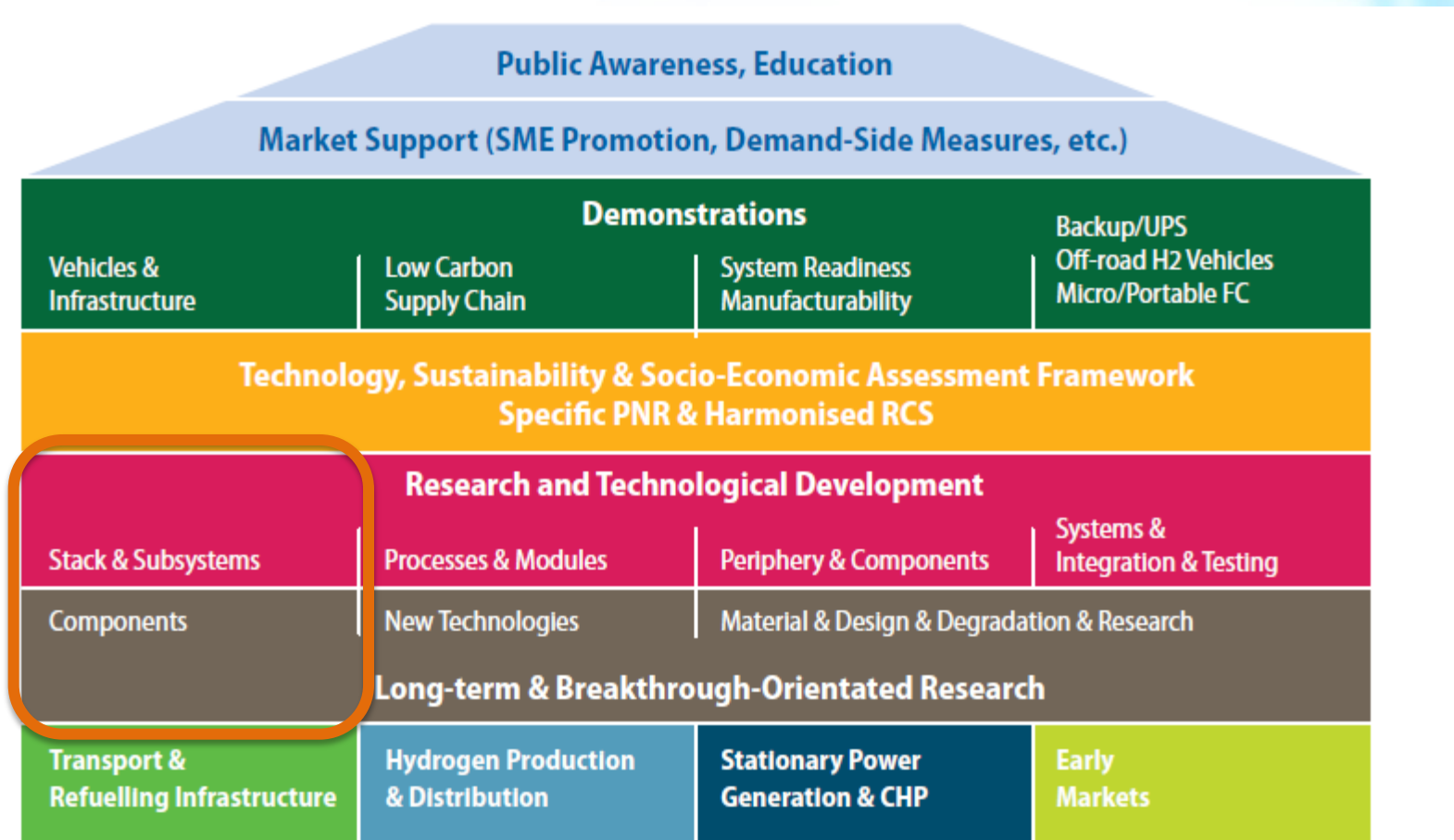


# Program Review Days 2014

## Introduction to R&D projects in Transport

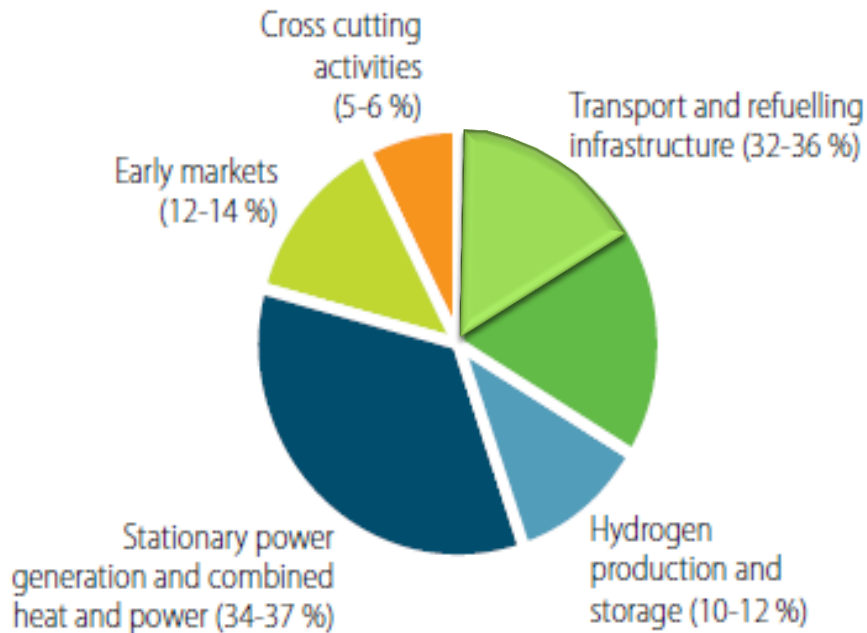


# Multi-Annual Implementation Plan 2008 - 2013



# MAIP Objectives

## — Budget distribution

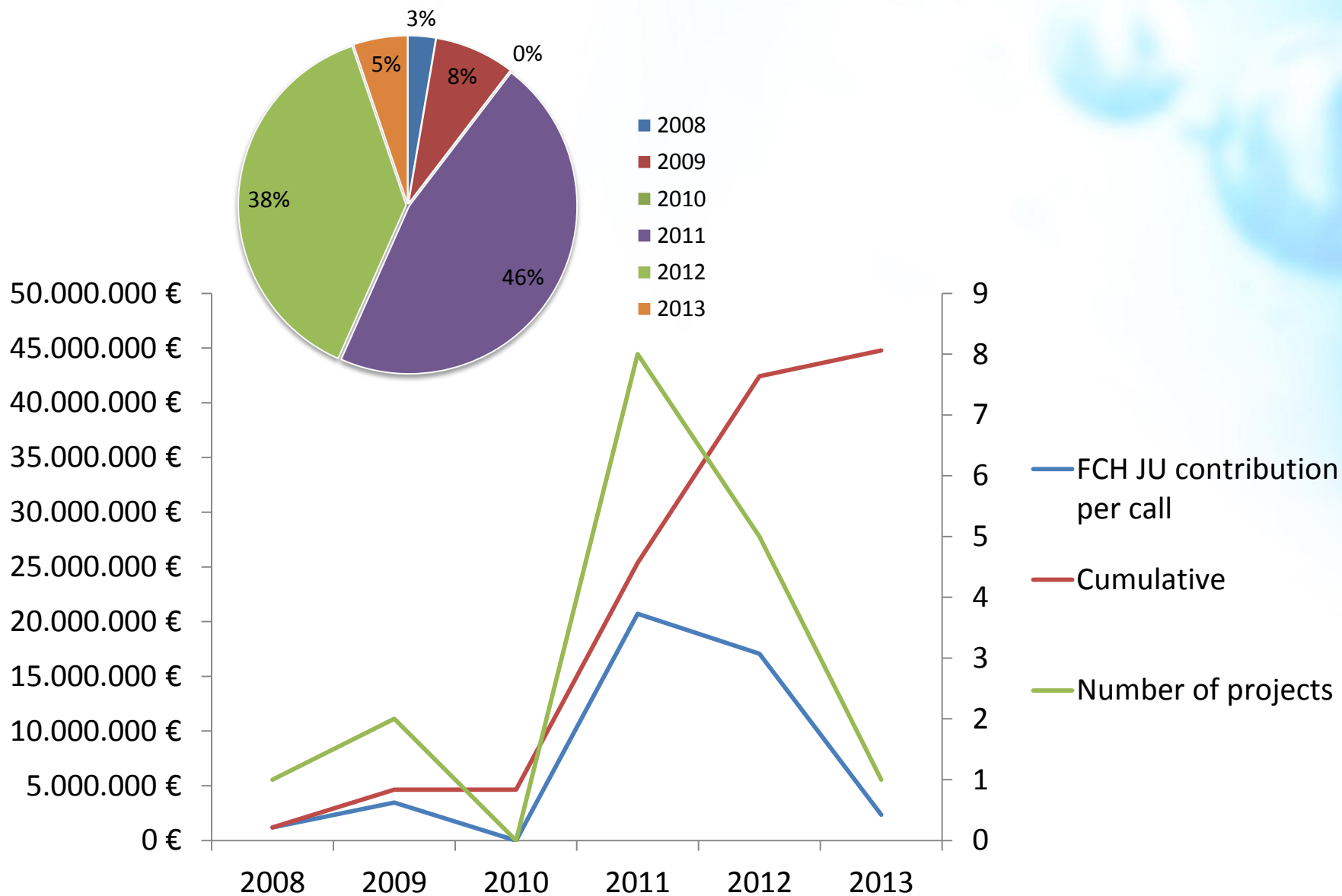


Expected budget of 42.5M€

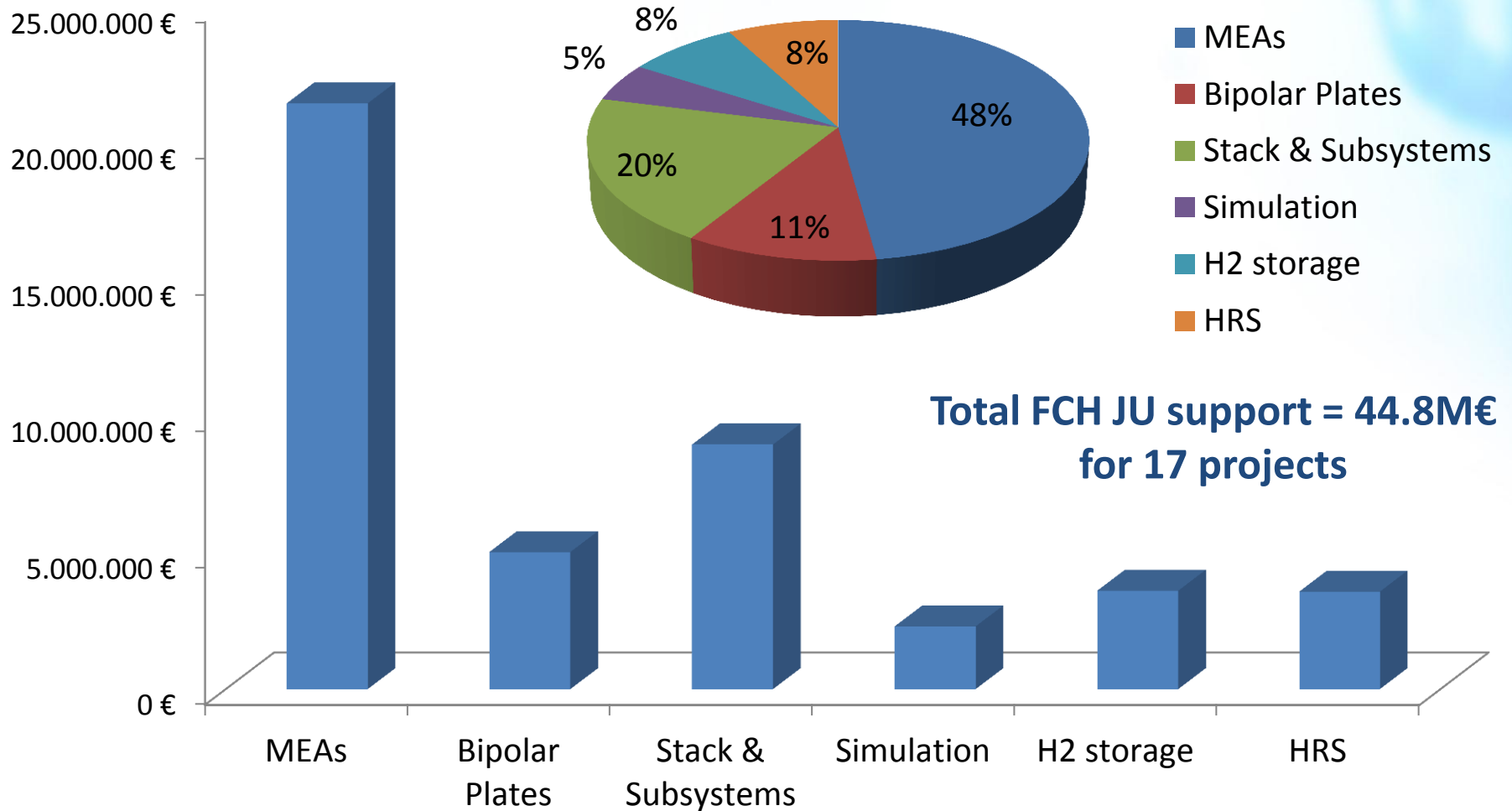
### Covering:

- Membranes
- Catalysts
- Bipolar Plates
- Manufacturing and process development
- Methodology and tools
- System components
- Advanced components for HRS

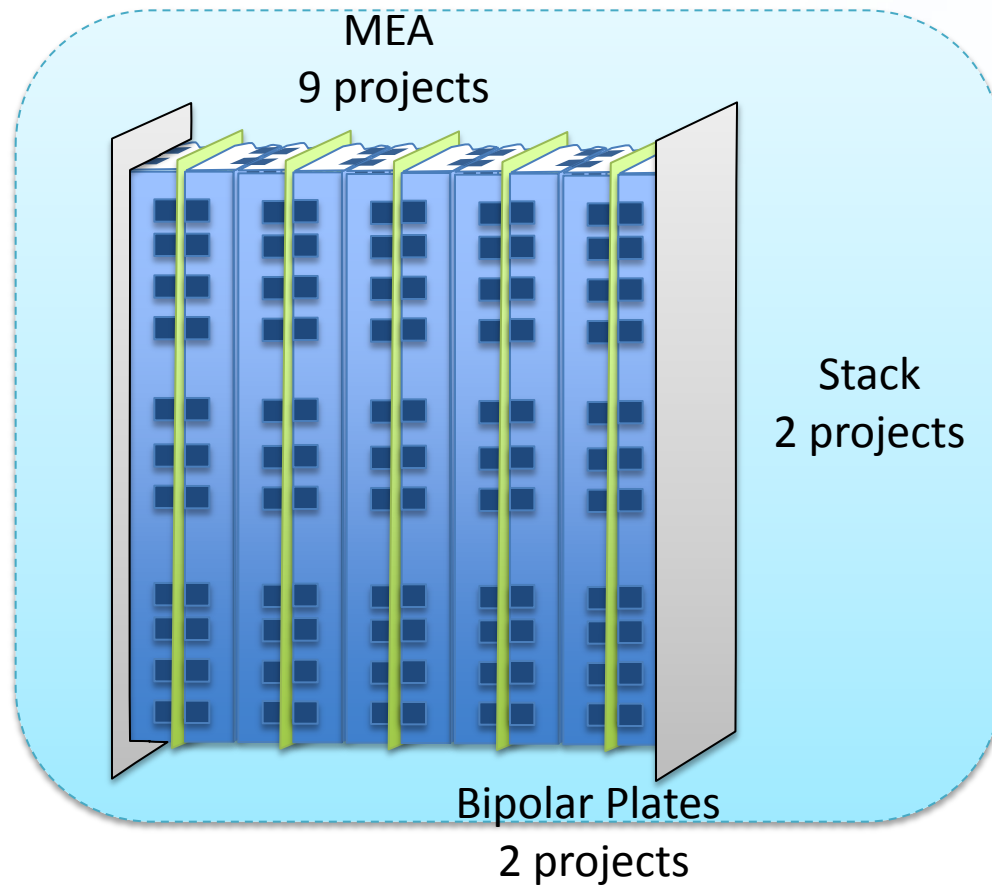
# FCH JU Funding



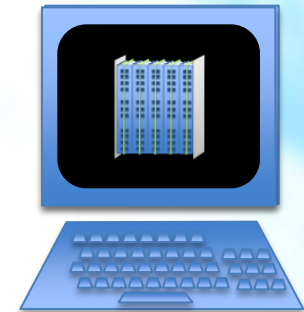
# FCH JU Funding Breakdown



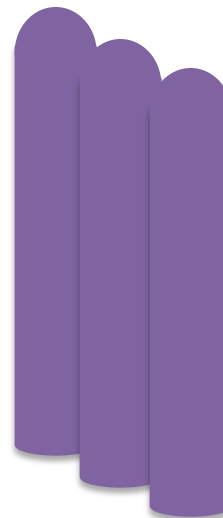
# MAIP Coverage



Modelling  
1 project



Advanced HRS  
1 project



H<sub>2</sub> Storage  
2 projects

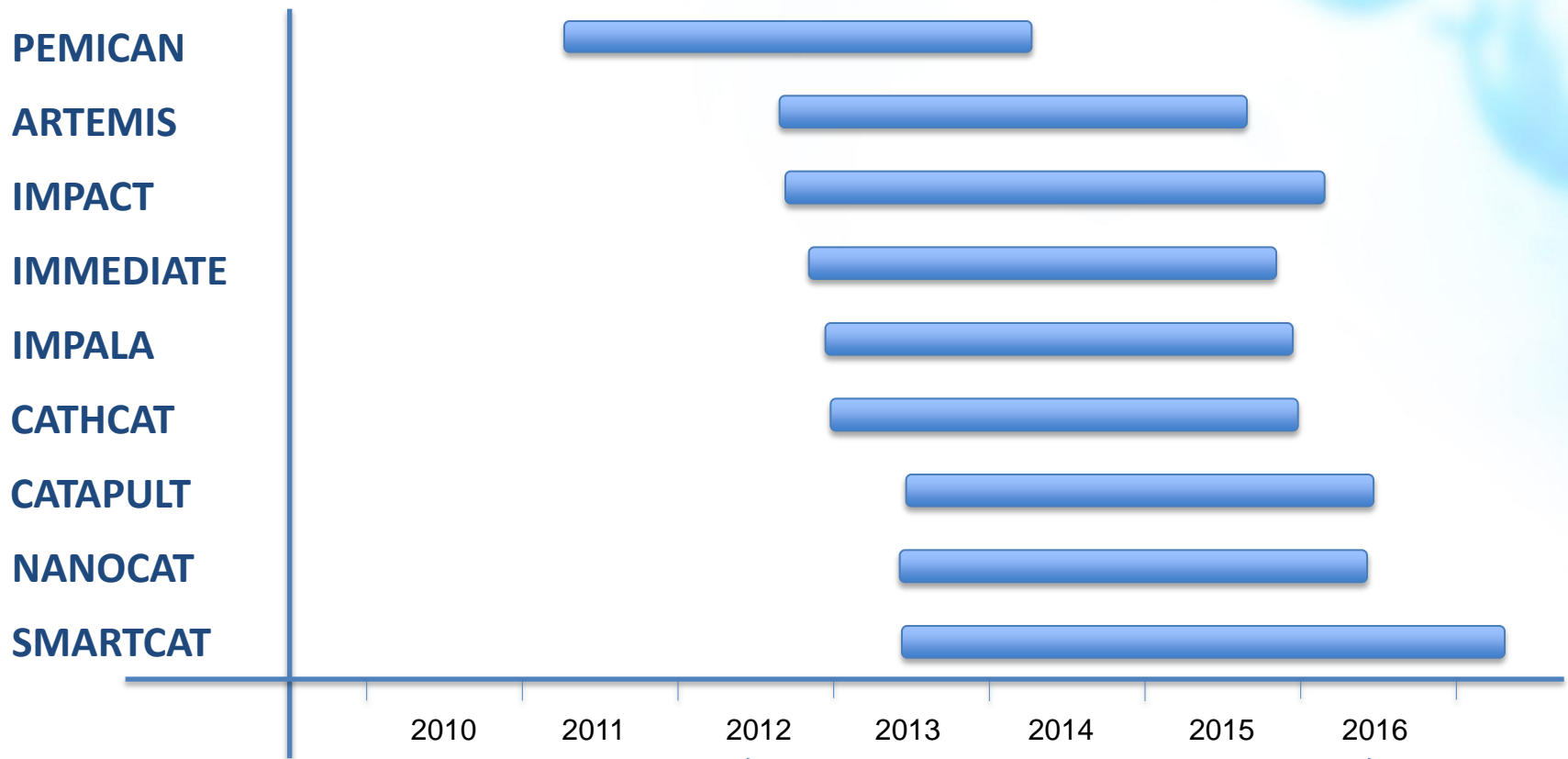
# MAIP coverage

	MEA									Bipolar Plates		Stack & Subsystems		Modelling & Simulation	H2 storage		HRS
MAIP R&D areas	PEMICAN	ARTEMIS	CATHCAT	IMMEDIATE	IMPACT	IMPALA	CATAPULT	SMARTCAT	NANOCAT	STAMPEM	COBRA	AUTOSTACK	AUTOSTACK -CORE	PUMAMIND	SSH2S	COPERNIC	PHAEDRUS
Membranes	X	X	X	X	X			X				X	X				
Catalysts	X	X	X	X	X		X	X	X			X	X				
GDL*				X	X	X						X	X				
Bipolar plates										X	X	X	X				
Manufacturing & process development										X		X	X			X	
Methodology & Tools	X	X			X	X	X							X			
BoP components															X	X	
HRS (adv.)																	X

\* Not identified in the MAIP

# Achievements & Status (1)

## — MEAs



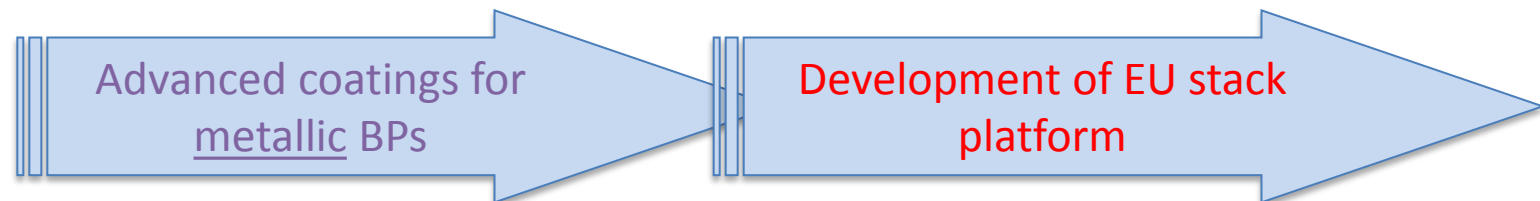
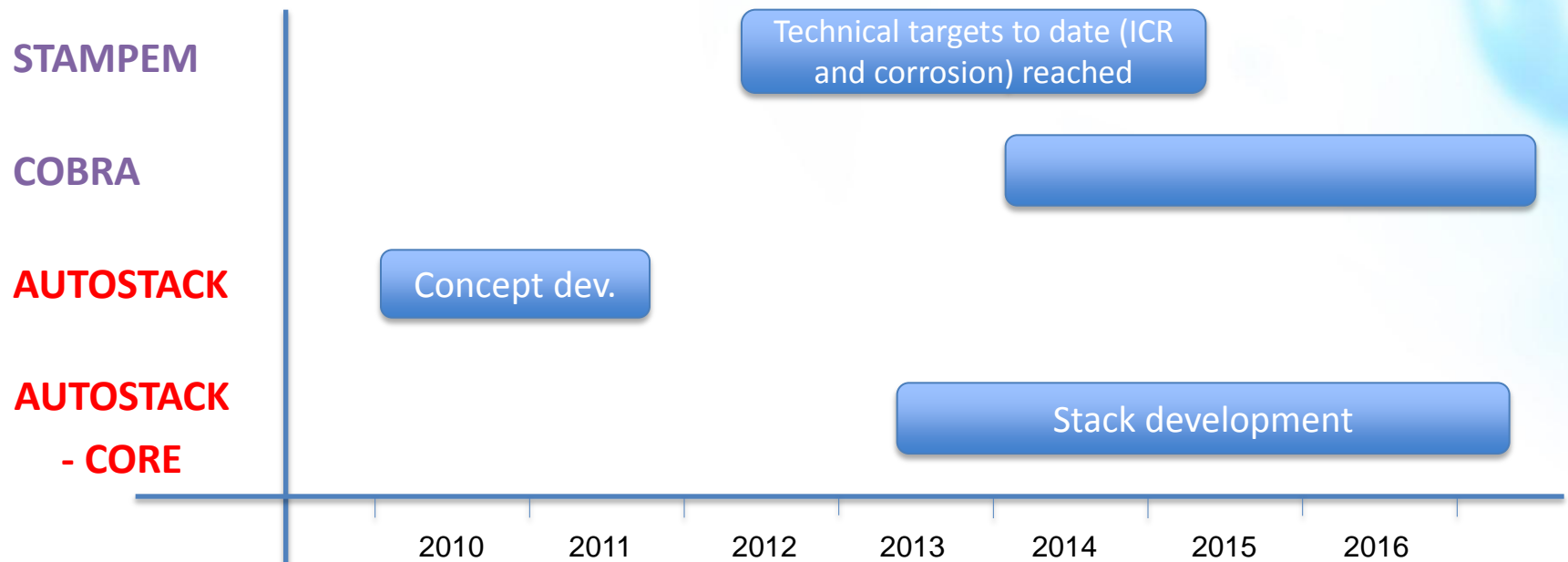
1. Broad range of approaches for membranes, catalysts and GDL

2. Bulk of results to come later



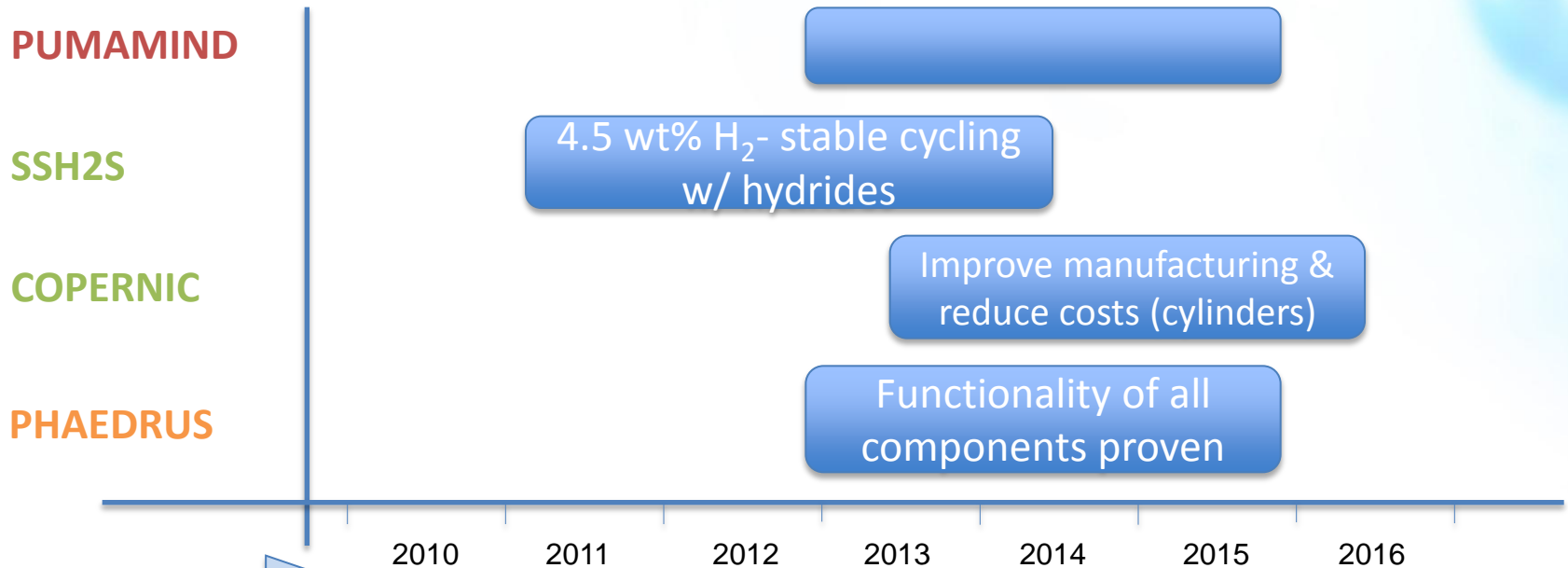
# Achievements & Status (2)

## — Bipolar Plates & Stack



# Achievements & Status (3)

## – Modelling, Storage and HRS



Cell level modelling

Both solid state &  
CGH2

Electrochemical compression + PEM  
electrolysis + advanced dispensers

# Conclusions: R&D in Transport

- **Comprehensive level of MAIP coverage:**
  - All areas identified receive funding
  - Level of support in line with expectations
- **Strong focus on FC components (MEA, BP)**
- **R&D supported mostly in calls 2011 & 2012 (74% of total)**
  - Bulk of impact to come 2015+

# Thank you for your attention!

## Further info:

- FCH JU: <http://fch-ju.eu>
- NEW-IG: <http://www.new-ig.eu>
- N.ERGHY: <http://www.nerghy.eu>