



# Research and Innovation for the Circular Economy

**HORIZON 2020 Societal Challenge 5 - French brokerage event about circular economy and water, Paris, 10/12/2016**



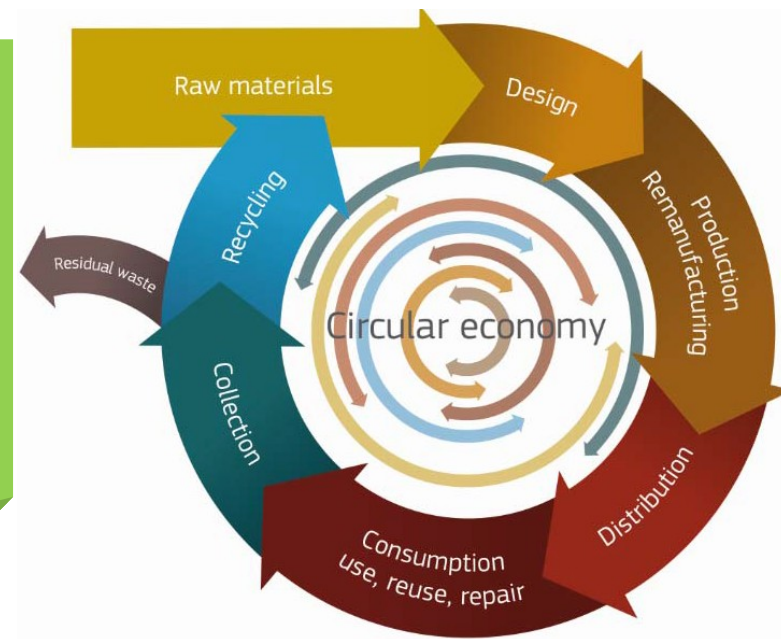
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DG Research & Innovation  
Deputy Head Unit Eco-innovation**

# What problem are we facing?

- ✓ *Global pressures on natural resources, rising costs, EU's dependency on imports, and environmental impacts*
- ✓ *The 20<sup>th</sup> century's economy model, based on plentiful and cheap resources and built on the principles of "take, make, waste", is unsustainable*

**Circular Economy** is about **Change**,  
and about **Innovation**

requires **RTD&I investments**,  
**multi-stakeholder** involvement  
and an **enabling framework**





## Circular economy Package

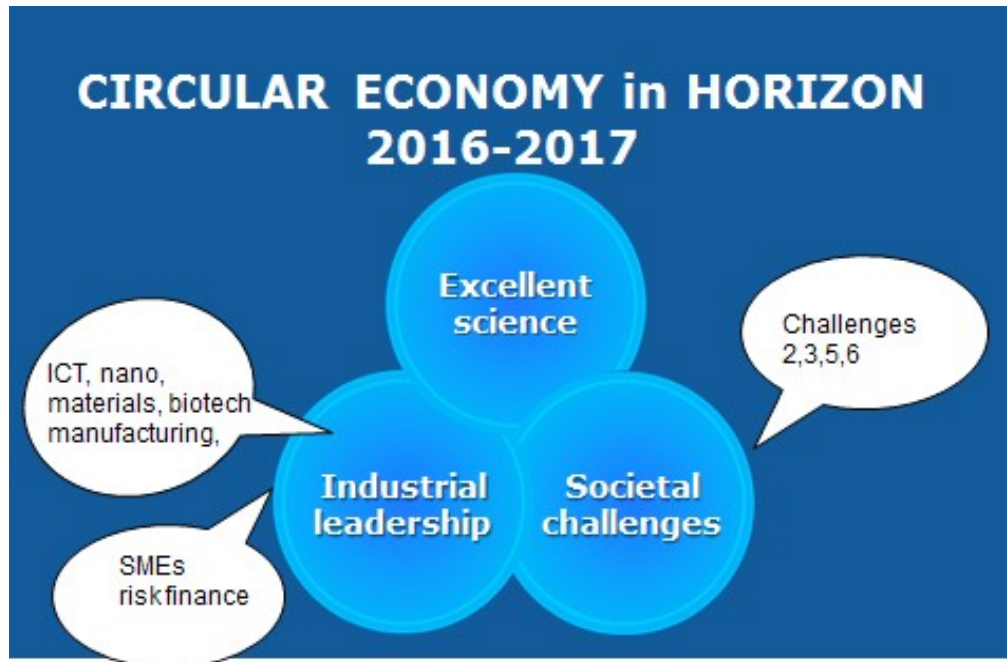
- ✓ Adopted by the Commission on 2 December 2015
- ✓ Action Plan Communication & Lists of follow-up initiatives
- ✓ 4 legislative proposals on waste
- ✓ Key action areas: Production, Consumption, Waste Management, Market for Secondary Raw Materials, Innovation, Investment and Monitoring
- ✓ 5 priority sectors: Plastics, Biomass & Biobased Products, Food Waste, Critical Raw Materials, Construction & Demolition

# Research and Innovation Role in CE

*Create the right environment for innovation and investments*

- ✓ **DEMONSTRATING** the opportunities for moving towards a circular economy through the Focus Area "Industry 2020 in the Circular Economy"
- ✓ **REGULATORY INNOVATION:** addressing regulatory barriers to circular economy activities or business models, through the implementation of **Innovation Deals**
- ✓ **Financial Innovation:** Assessment of the possibility of launching a platform together with the **EIB** and national banks to support the financing of the circular economy and supporting **FINANCING TOOLS** and **ADVISORY SERVICES** through **InnovFin (business models)**

# ADDRESSING CIRCULAR ECONOMY in H2020 WP 2016-2017



**FOCUS AREA**  
**'Industry 2020**  
**in the Circular Economy'**  
**Cross-cutting call**

**Focus Area "Industry 2020 in the Circular Economy"**  
**over 650 M€ budget**

CIRCULAR ECONOMY CALL H2020 WP2017

- **CIRC-01-2017:** Systemic, eco-innovative approaches for the circular economy: large-scale demonstration projects -> **Systemic services for the circular economy**
- **CIRC-02-2017:** Water in the context of the circular economy -> **Towards the next generation of water systems and services – large scale demonstration projects**
- See also SME instrument call SC5 topic



# Innovation Deals (IDs)

A fast, pragmatic and transparent approach to help innovators to:

- overcome legislative barriers
- make use of EU law appropriately
- create regulatory certainty





## Possible barriers



EU laws can  
lack clarity



EU legislation may not always  
adequately support innovation  
and its market uptake



standards/norms may  
be lacking or conflict  
with each other



Member States' interpretation  
of EU law may differ from  
intended meaning

## IDs are fully aligned with EU law



## What it is not!

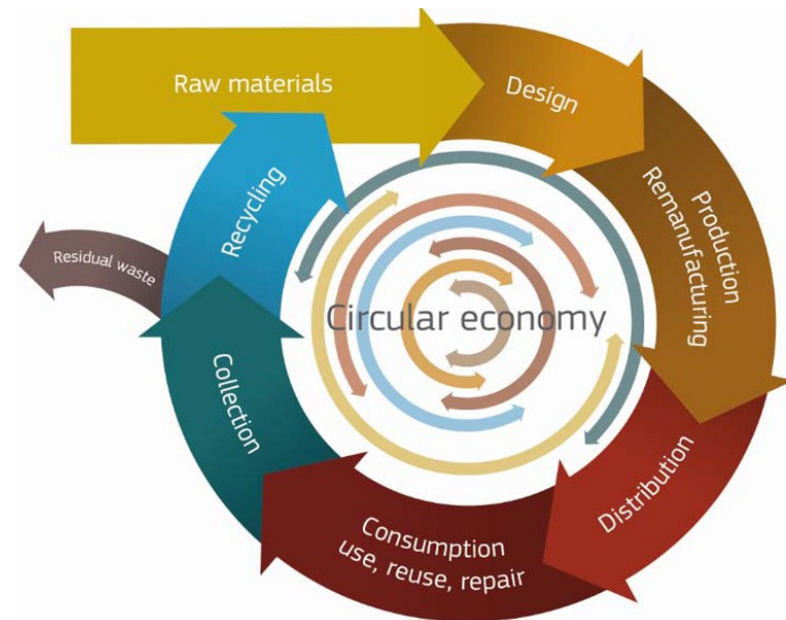
**!! It is not about changing legislation !!**

**!! There is no funding involved !!**

## Circular Economy Package

The Commission Communication "Closing the loop – An EU action plan for the circular economy" adopted on 2 December 2015, introduces the concept of Innovation Deals as:

**«a pilot approach to help innovators facing regulatory obstacles (e.g. ambiguous legal provisions), by setting up agreements with stakeholders and public authorities»**



## Competitiveness Council 27/5

***The Commission will have to develop and implement a pilot for the envisaged tool of 'Innovation Deals'. Before mid-2018, the results of the pilot will have to be assessed and evaluated.***

## Pilot phase

### Invitation to submit Expressions of Interest

- max 5 IDs
- Timing: deadline 15 September 2016

### Horizon 2020's 2016-2017 work programme

The Focus Area 'Industry 2020 in the Circular Economy' includes two topics (*CIRC-01 and CIRC-02*) max 10 IDs

- Timing: Early 2017



# How to apply for an ID

## Step 1: Eligibility criteria



it must be about an innovation with only recent and limited, or even no access to the market

which falls within the scope of the EU's strategy to create a circular economy

when the obstacle results from EU legislation or from its translation into national legislation

## Step 2: Selection criteria



clarity of scope and objectives

EU-wide

complementarity and compatibility

commitment and participation of relevant stakeholders and authorities

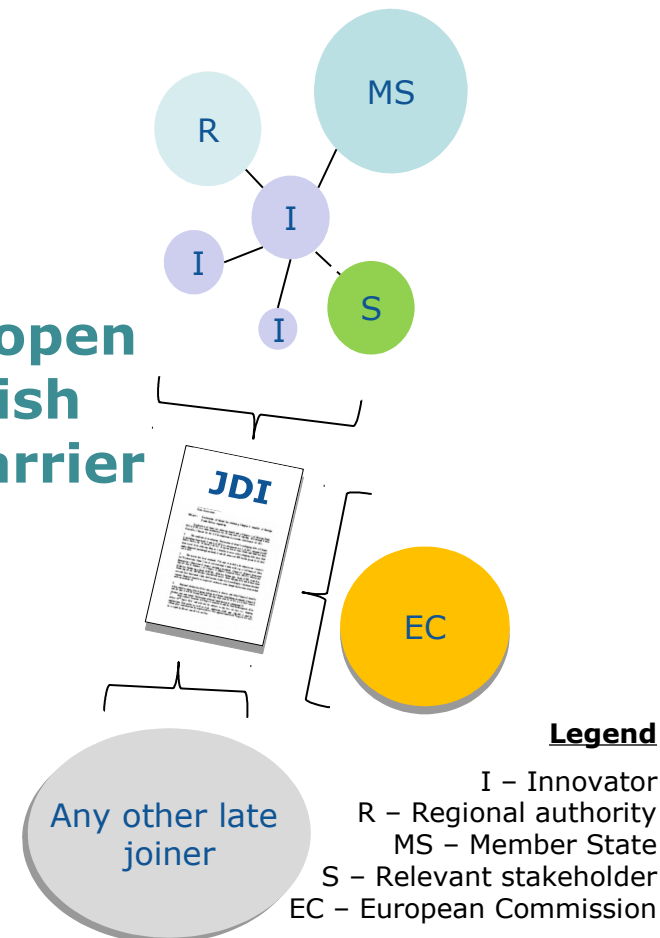


# Joint declaration of Intent

ID's signatories jointly commit to:

- **collect and provide evidence,**
- **inform all relevant stakeholders,**
- **collaborate and participate in an open transparent way aiming to establish the facts as regards an alleged barrier to innovation**

The ID remains open to other innovators or stakeholders



# Innovation Deals (IDs)

- 32 Expressions of Interest
- 14 countries
- Topics submitted:
  - water
  - waste
  - energy
  - nutrients
  - public procurement
  - .....

Timeline	
Opening of the call for EOI	26 May 2016
Closing of the call for EOI	15 September 2016
Selection of IDs	October – December 2016
Signature of IDs	beginning of 2017
Evaluation of the pilot	mid 2018

# Innovation Deals (IDs)

## 2 successful Innovation Deals

- 1. From E-Mobility to recycling: The virtuous loop of electric vehicle:** The main focus is the reuse of electric batteries of cars for stationary storage systems.
- 2. Sustainable wastewater treatment combining anaerobic membrane technology and water reuse:** The main focus is to consider whether water reuse for irrigation is part of the waste water treatment.

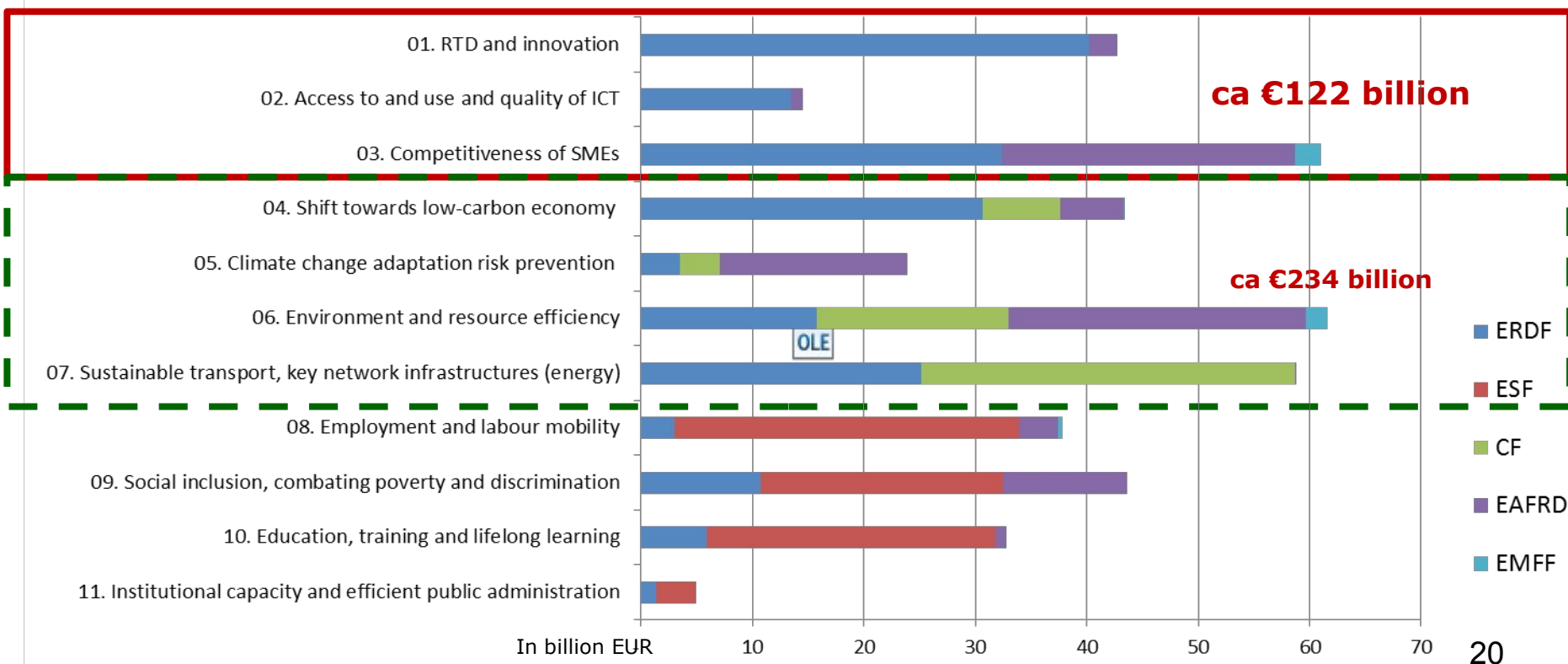
# Innovation Deals (IDs)

- **30 rejected cases:**
  - > Did not meet the eligibility criteria or the selection criteria.
  - > Some cases are politically sensitive

# European Structural Investment Funds 2014-20

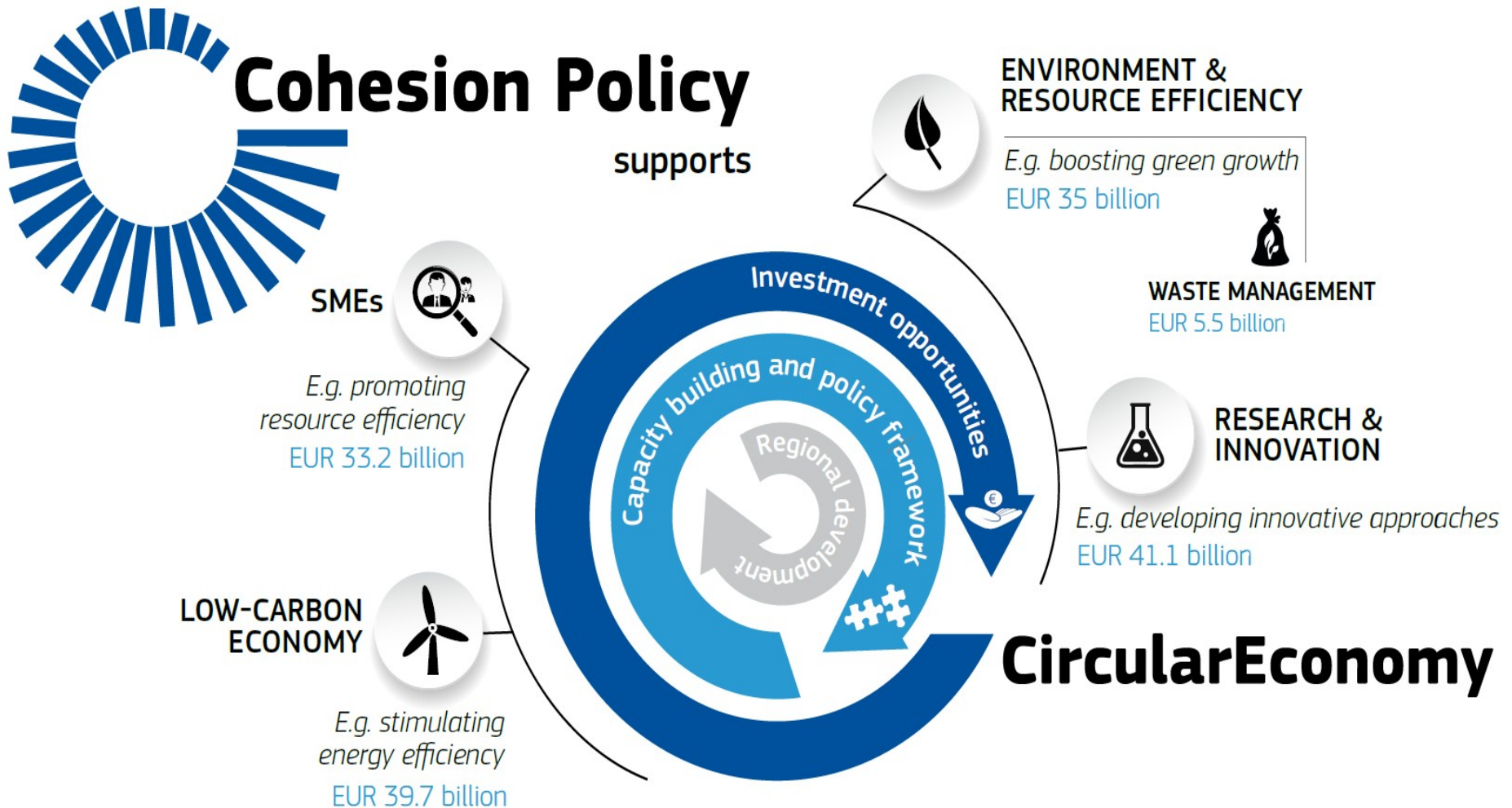


- **EUR 454 billion of ESIF + EUR 183 billion of national co-financing**
- **456 national/regional OPs and 79 INTERREG cooperation programmes**
- **Concentration on 11 Thematic Objectives**
- **Ex ante conditionalities: for waste / for 'smart specialisation' in R&I**



Source: Final ESIF partnership agreements as of December 2015

All open data available at: <https://cohesiondata.ec.europa.eu/>



Ex-ante conditionality: having a strategy for waste investments in line with waste hierarchy



# LIFE as a catalyst of shift from linear to circular economy

- **LIFE finances projects demonstrating viability of circular economy since 1992** (e.g. over 670 waste reduction, recycling, re-use projects totalling to over ~EUR 1 billion of EU funding)
- **LIFE continues supporting circular economy:**
  - **In the 2007-2013 period over EUR 164 million invested by LIFE into waste projects alone;** over 165 projects representing an overall investment of more than **EUR 430 million**
  - Only in-between **2014-2015 period over EUR 100 million invested** into over 80 circular economy projects. LIFE funding together with national co-financing lead into **creation of an economy totalling to over EUR 200 million**

**Further strengthening of LIFE's focus on circular economy foreseen**



# Networked/Joint Demonstration: de-risking business investments

European  
Commission

*Smart Specialisation as method for positioning, aligning & integrating investment efforts*

## Investment Project Pipeline

HORIZON 2020

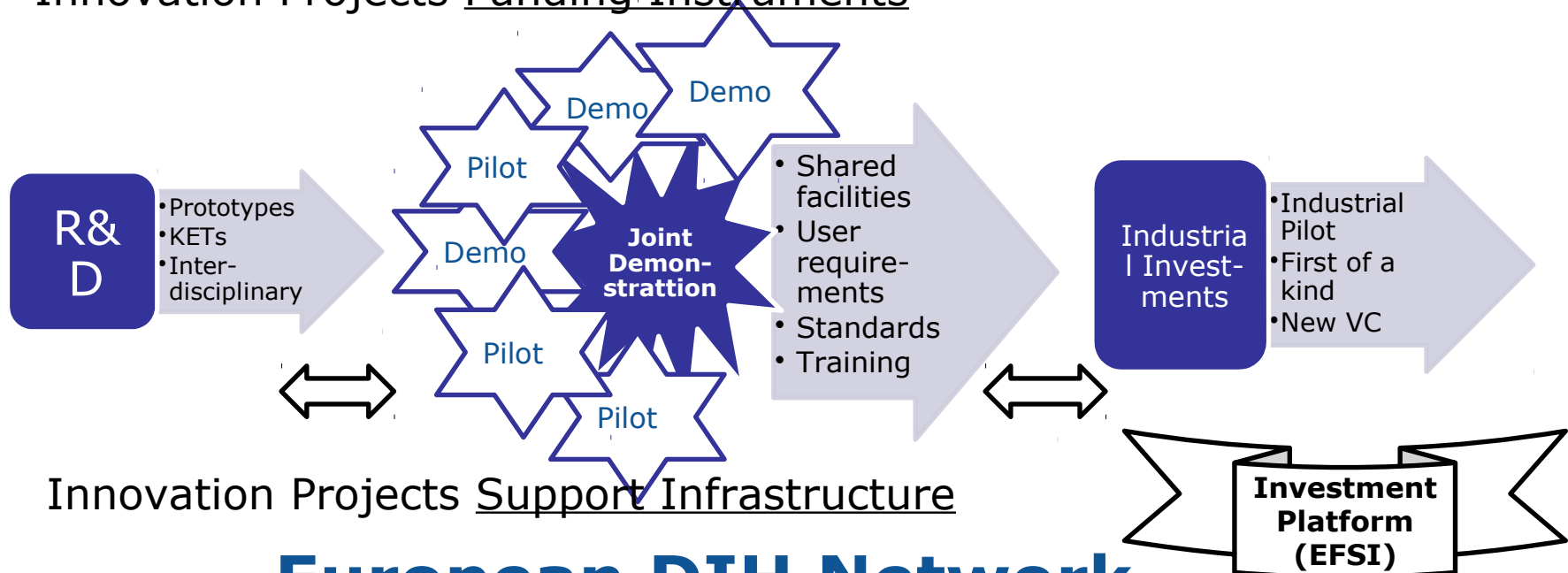
ESIF-RIS3

COSME

INTERREG

EFSI-EIB

Innovation Projects Funding Instruments



## European DIH Network



# Thank you for your attention!

**Find out more:**  
[www.ec.europa/research/horizon2020](http://www.ec.europa/research/horizon2020)