

# Vanguard Initiative, facilitating investments in value chains

Seminar "Interregional Investments in Innovation and Cooperation" in Slovenia – 31 March 2021 Wim De Kinderen, South Netherlands – chair Task Group "Vanguard Pilot Monitoring"

Vanguard Initiative ?! a short intro.

Regional Cooperation

S3 Smart Specialisation

**Industrial Innovation** 

two presumptions :

- our Smart Specialisation Strategy
  (S3) is the result of a real
  Entrepreneurial Discovery Process
  (EDP).
- our companies have a positive attitude towards
   'Internationalisation', and it is even a priority for their business.

Political Commitment

Entrepreneurship

### **VI Members**

#### Members (39)

Aragon, Asturias, Autonomous Province of Bolzano/Bozen – South Tyrol, Autonomous Province of Trento / Trentino, Auvergne-Rhône-Alpes, Baden-Württemberg, Basque Country, Cantabria, Catalonia, Dalarna, East Netherlands, East and North Finland, Emilia Romagna, Flanders, Friuli Venezia Giulia, Galicia, Gävleborg, Lombardia, Lower Austria, Lower Saxony, Malopolska, Navarra Norte Portugal, North Rhine-Westphalia, Orebro, Pays de la Loire, Piemonte, Randstad/Zuid Holland, Saxony, Saxony-Anhalt, Scotland, Skane Region, Slovenia, South Netherlands, Tampere, Upper Austria, Värmland, Wales, Wallonia

## **Associate Members** (5)

AFIL, Lombardy Green Chemistry Association, Brainport Development, SPRI, Scottish Entreprise

## VI: a network of many regions

Triple helix involved and organized **Action focused** influence by results

**Political** access to regional funds; VI's USP

region

industry based S3

ambition

political commitment (Milan **Declaration**)

mobilizing and organizing stakeholders in the region

active participation in the network structure

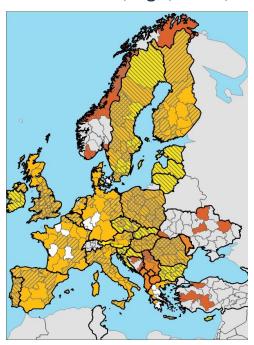
active participation in core activities

**Content driven** 

## VI inspires happy with the EU copy paste



- 3 Thematic S3 Platforms (Industry Modernisation, Agrofood, Energy)
- 35 S3 Partnerships
  - high tech, low tech, non tech
- 200 EU regions involved
- support by DGs REGIO, JRC, GROW, RTD, Connect, Agri, ENER, MARE,...



## VI works for the collective interests





#### The Vanguard Initiative<sup>1</sup> welcomes the MFF package as an ambitious renewed agenda for EU industrial and innovation policies

Position paper

The Vanguard Initiative welcomes the MFF package as an ambitious renewed agenda for

Int to smart specialisation principles. at clear and concrete modalities are sources of funding for supporting lue chains, on the basis of smart





#### Supporting Key EC Proposals for New Instruments Offering Real Possibilities of EU Funds Synergies

On 29 May 2018, the European Comicohesion Policy programming period. provisions for the European territorial of a new INTERREG Component 5 on I (1 billion, representing 11,5% of the linterregional innovation investments the innovation projects having the potential would take on board the work already in



Dear Members of the SME Intergroup,

The SME Intergroup cordially invites you to a breakfast discussion hosted by



on the topic of

#### Supporting interregional S3 cooperation along industrial value chains

How component 5 in Interreg strengthens interregional cooperation

Tuesday, 6 November 2018 08:00 – 09:00 am, MEP Salon European Parliament, Brussels



#### Working Document

### Interregional Innovation Investments European Territorial Cooperation – Component 5

this is a good proposal to contribute substantially to the strengthening of the competitiveness of the EU and all of its regions

#### about?

pean region is strong in one or more particular areas, but hardly any of them is strong is itself to face and lead worldwide competition. Collaboration across regions is therefore floreover the needed exercise in this context is to bring innovation faster to the market, uires public investments that form the basis of later follow-up public-private and private its and initiatives. When working together across borders, these investments can be better and aligned.

**VANGUARD INITIATIVE** 

Vanguard Initiative's Pilot Projects a short intro.

## **VI Pilot Projects**

- Interregional cooperation projects between companies and knowledge institutes in a specific technology field or application domain
  - demonstration projects, no research (> TRL 5 post prototyping)
  - industrial commitment (to participate/lead/co-invest)
  - European dimension : added value of joint demonstration
  - expected significant impact (economic, social and environmental returns)
- European Networks of Demonstrators
- no "one off" projects / building of new industrial value chains through a pipeline of investment projects

#### in order to:

- accelerate market development
- global competitiveness

## **VI Pilot Projects and Democases**

**3D-printing** 

**ADMA for Energy-Related Applications** in Harsh **Environments** 

Joining of Large

Scale Components

New Methods of

Manufacturing of

Components

Corrosion on Offshore and

Subsea Infrastructure

Sensing and **Remote Monitoring** 

Technologies

**Efficient and** Sustainable **Manufacturing** 

**Bioeconomy** 

**New Nano**enabled **Products** 

repairing

Power Transfer in the Sea (PURE)

Lignocellul<u>ose</u> biorefinery

Nanowires for ICT and energy applications

**Bio-aromatics** 

LiquifiedBio-Methane (LNG Blue Corridor)

Nano enabled Micro System for Bio Analysis (NeMs4Bio)

Printed Electronics on metallic 3D objects (Shapetronics)

Structural health on composite materials

MEMS for nanoanalytiX

Flip-Chip assembly for Indium **Phosphide PICs** 

Collaborative robots

Integrated electronics

Large parts

Healthcare

**Build Environment** 

hybrid components

Maintenance

Additive-subtractive

De- and Remanufacturing

Polymer based functionalproducts

Digital

Energy-flexible and resource-efficient factory operation -**EFREFO** 

Biopolymers

**DYNAMIC LANDSCAPE Artificial** Intelligence

**Smart Health** 

**Transformation** 

### VI democases

#### VI democases common objectives

- establish (shared) facilities for demonstration of new technologies
- facilitate access to (shared) facilities
- lower technology uncertainty, risks and costs
- stimulate industrial replication and upscale (hence market uptake)

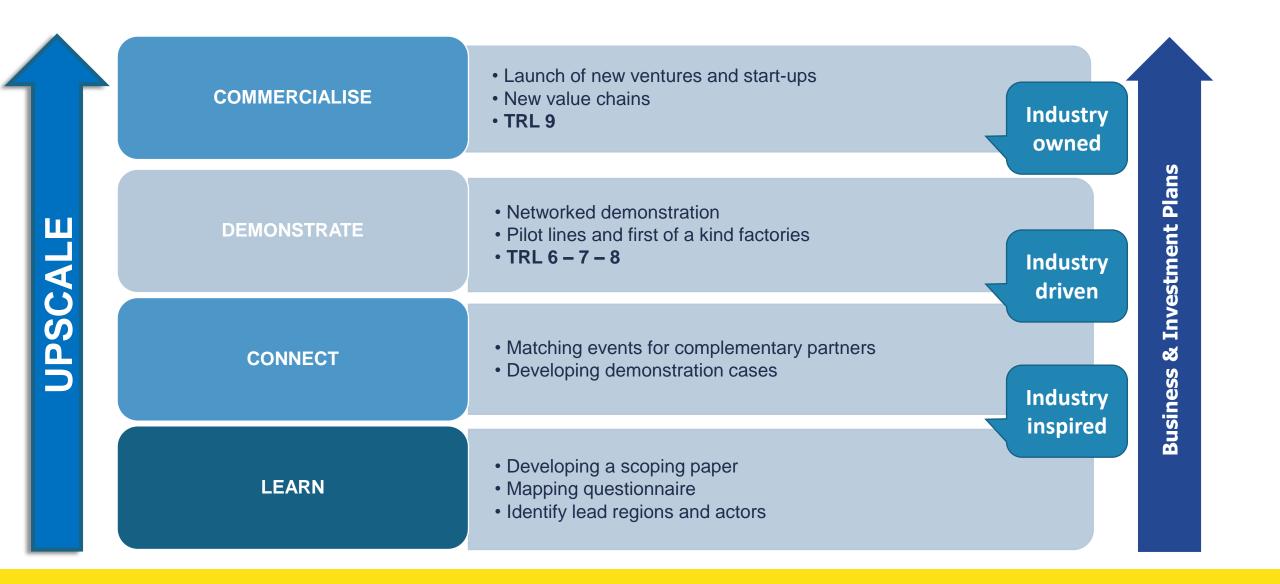
#### each democase =

- combination of complementary demonstration facilities
- group(s) of companies accessing infrastructure (TRL 6-8)
- Industrial replication and upscale (if the above is successful) (TRL 8-9)

#### 3 types of democases

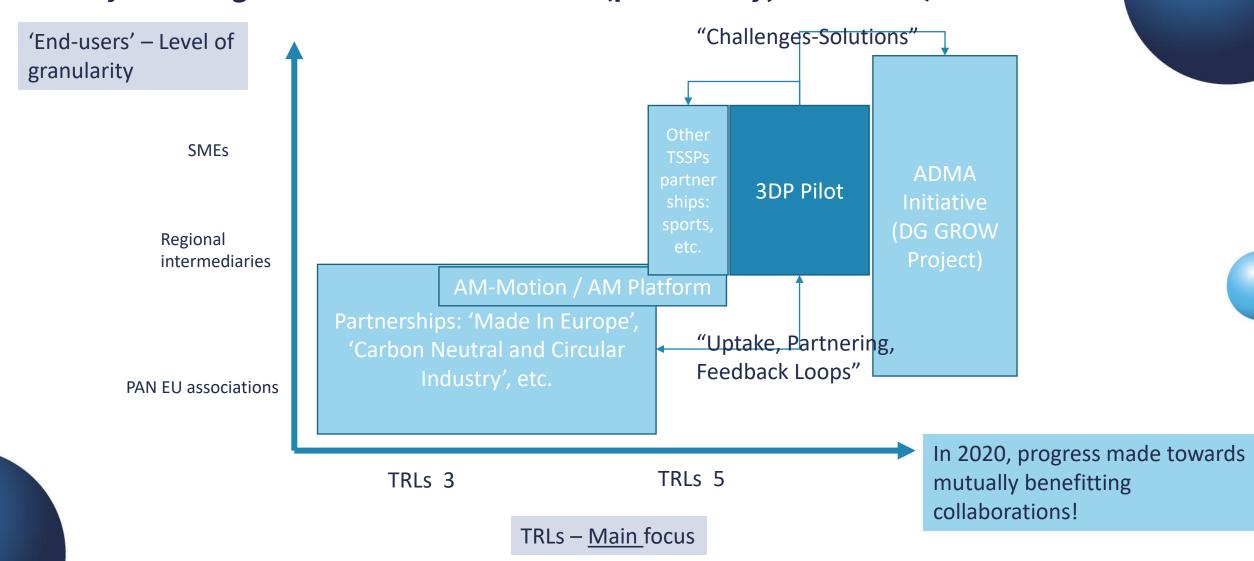
- challenge driven or technology driven
- connecting existing infrastructure
- building brand new infrastructure
- connect and upgrade existing infrastructure (hybrid format)

## **VI Methodology**



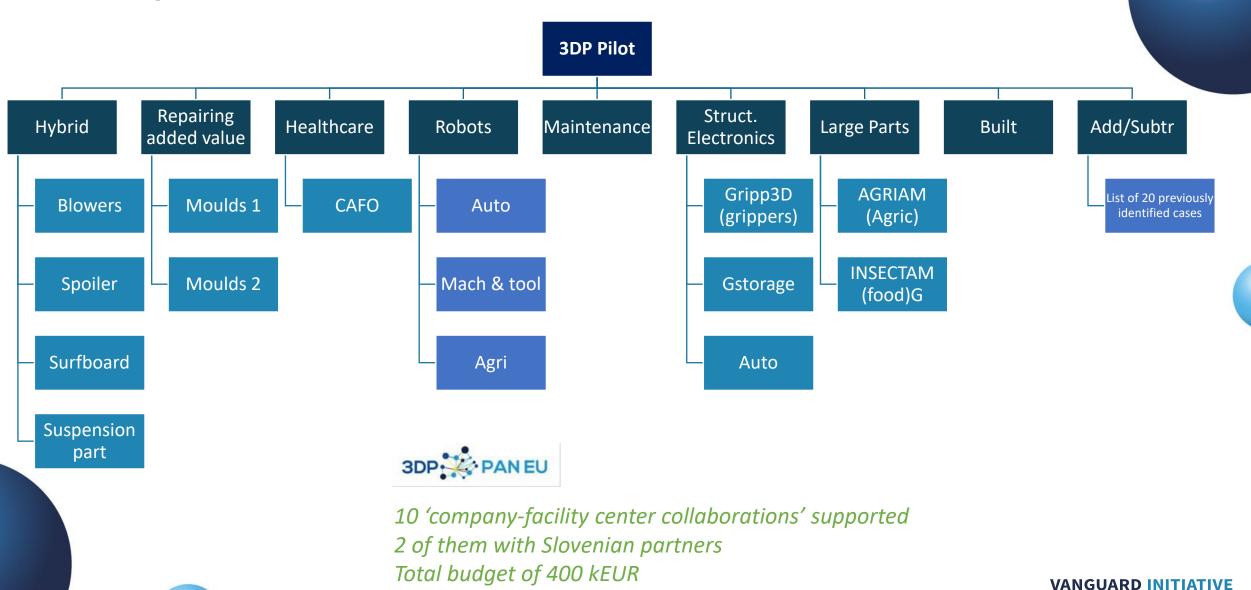
Vanguard Initiative's Pilot Projects some results.

## VI 3DP – strategic positioning in the landscape Other key cross-regional AM-related initiatives (preliminary, illustrative)



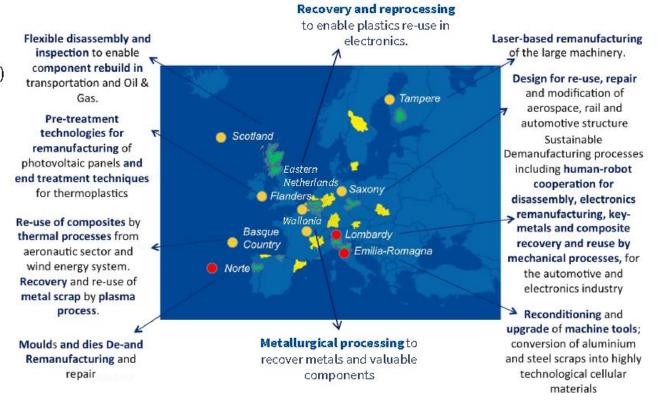
**VANGUARD INITIATIVE** 

## 3DP – portfolio of business driven use cases



## ESM – De- & Remanufacturing democase Envisaged inter-regional nodes configuration

- Totally new pilot site (or connection)
- Upgraded existing pilot site (or connection)



**<u>Key Issue:</u>** integrated pilot plant solutions, needed by industry to *validate high-risk investments* in circular economy businesses before the industrial implementation.

### **BioEconomy**

### **Bioeconomy Pilot's 2020 key achievements**



New demo-case focused on biopolymers production and applications



5 public-private partnerships involving 50 entities

10 Green Deal project proposal preparation



Networking: exhibitor at 28th European Biomass Conference & Exhibition, with Itol meetings



43 advanced business models selected across 8 Vanguard regions



**New plant** for liquified biomethane distribution on the market



Demonstrating the pilot-scale viability of biobased products obtained via thermochemical conversion of biomass to bio-aromatics



Business plan design for polyester and polyurethane-based synthetic leather



#### **Business development**

Implementing the SMBio-LNG business plan under the Technical Assistance Facility (TAF)

- To empower the partnership in attracting private capitals
  - To validate a model able to be replicated across VI regions
  - Increase regions participation in Bio-aromatics demo-case

#### The Biobased platform of regions

- Data about bio-based feedstock availability
- Over 50 EU regions included (13 Bioeconomy Pilot members)





VI Pilot Projects' funding and investment needs will the new MFF instruments respond to them? (we are connected to EU's strategic orientations) (and we are ready to contribute)

will the (new) regional instruments respond to them?

## **Questions?**

