

The VI 3DP Pilot – Objectives, Concept, Progress and Opportunities

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Structure of the presentation



- The Pilot's objectives and structure
- The Pilot's activities in 2020
- The support and short-term opportunities for partners
- Q&A

Vanguard Initiative 3DP Pilot - Targeted Generic Industrial Challenges and Drivers

	Drivers	Challenges
<i>Company level (SMEs in particular)</i>	<p>AM is instrumental in helping many companies to become:</p> <ul style="list-style-type: none"> • More sustainable • Smarter • More Competitive 	<p>But deployment and uptake of AM solutions still hampered by a.o.:</p> <ul style="list-style-type: none"> • Lack of awareness and Information asymmetry • Fragmentation/Lack of critical mass • Technical/Technological/Market Risks and lack of (open access) demonstration facilities
<i>VC level</i>	<p>AM is key for :</p> <ul style="list-style-type: none"> • Strengthening existing value chains • Creating new and more resilient value chains 	

Why a Cross-Regional Initiative to address/embrace these aspects?

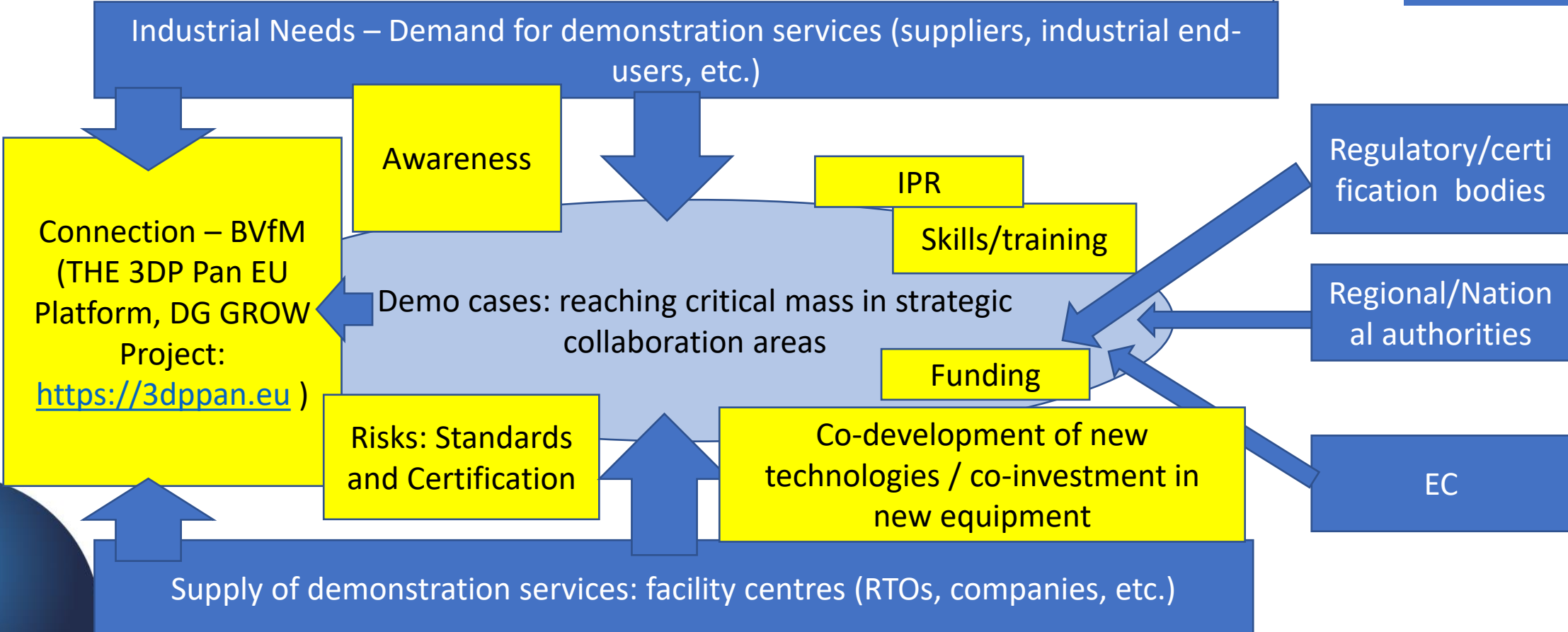
- ➔ Completeness/Efficiency (incl. stimulating (complementary) public (and private) investments and mutual access), BVfM and Critical Mass (tangible and intangible assets)
- ➔ Positive Externalities and Spill overs effects

3DP Pilot – The development of industry-led, transregional demonstration platforms that connect 3DP capabilities and actors in Europe

3DP Pilot Overall Structure in 2020

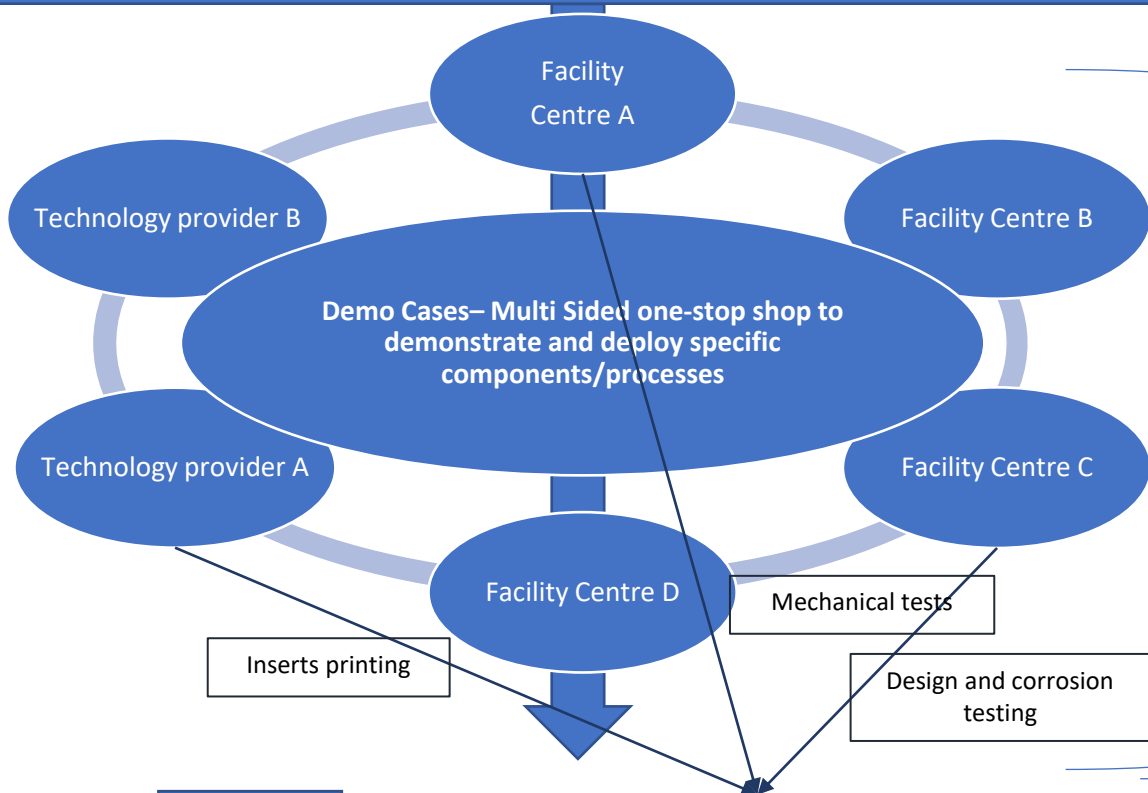
Goal: Smarter, more sustainable and more competitive industry through a facilitated deployment and uptake of AM solutions

3DP Pilot: a multi-actors and structural cross regional partnership



The concepts of 'Demo cases' and product/application-specific 'business' cases

Industrial/End-users need for demonstration services in specific areas (technologies-materials-challenges)



Business Model 'Demo Case'

- Value Proposition and Clients. 'Multisided platform' offering.
 - ▷ End-users: Access to BVfM demonstration services and in project implementation
 - ▷ Facility Centres/technology providers: Broadened customer base and knowledge/expertise
 - ▷ Investors: Lowered risk and high return on (portfolio of) projects
- Costs and Investments.
 - ▷ Selection, Coordination and Management
 - ▷ Tangible and Intangible Innovation-related Investment
- Revenue generation:
 - ▷ Membership fees
 - ▷ Project fees/return

Business Model 'Business Case'

- Value Proposition and Clients. Demonstrated, certified and commercialised new products/processes
- Costs and Investments.
 - ▷ Phase 1: demonstration activities (40% private co-funding; remaining costs to be covered by in-kind contributions other partners and public funding)
 - ▷ Phase 2: industrial uptake (approximately 60% private co funding and the remaining by public/private sources in the form of debt (lending) or equity or subsidy (depending on industrial risk)
 - ➔ 'Cross regional' I in tangible and intangible assets, along/across VC(s)
- Revenue generation.
 - ▷ Products commercialisation through existing private legal entity (single SME) / entities (VC consortium)

Product-specific case 3

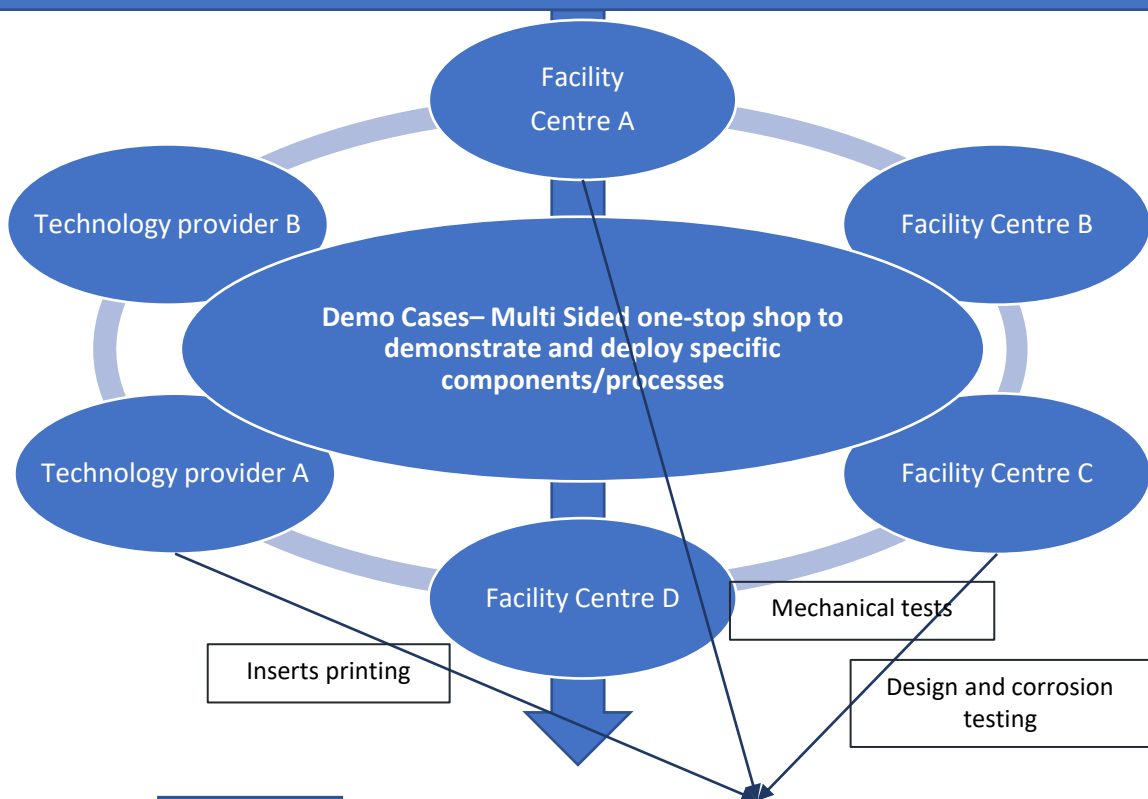
- Phase 1 : Demonstration Activities provided by a cross regional network of actors
- Phase 2: Industrial uptake, impacting VCs cross regionally

Product-specific case 1

Product-specific case 2

The 3DP Pan EU project, a direct outcome from / a supporting tool for the 3DP Pilot

Industrial/End-users need for demonstration services in specific areas (technologies-materials-challenges)



Product-specific case 3

- Phase 1 : Demonstration Activities provided by a cross regional network of actors
- Phase 2: Industrial uptake, impacting VCs cross regionally

3DP Pan EU Open Call – An opportunity to fund (phase 1) of 3DP pilot product/application-specific cases

- 10 cross-border 3D Printing industrial demonstration projects will be selected and supported
- Support and action funded: Max 40k €/SME/project. Eligible costs: demonstration activities provided by facility centres registered on the platform
- Projects targeted (10 projects selected in total):
 - ▷ SME-led project;
 - ▷ In each project, involvement of two Facility Centres located in two distinct EU countries;
 - ▷ 3DP Pan EU will cover up to 40k € of demonstration costs but total project costs can be higher (e.g. private co funding)
 - ▷ Deadline: 31 August 2020
 - ▷ Actors: one SME and at least two facility centres (from two different EU countries)

To be eventually complemented with other sources of funding

- Phase 1 and Phase 2 can of course be complemented with other funding sources (maximizing impacts):
 - ▷ Private co-funding
 - ▷ Regional funding
 - ▷ Etc.

Product-specific case 1

Product-specific case 2

A network of 26 Regions developping in 2020 10 (emerging) demo cases...and open to new and ideas !

5 demo cases under development

Demo case 1 - “Multi-materials components by hybrid 3D printing manufacturing” (Lead region: Emilia-Romagna)
Targeted value chains/sectors: Automotive, aerospace and machinery and tooling

Demo case 2 – “Machinery and Tooling - Structural Parts with Complex Shapes” (Lead region: Wallonia / Flanders)
Targeted value chains/sectors: Machinery & Tooling

Demo case 3 - “Additive-subtractive high precision & high finish production (high-end metals)” (Lead regions: South-Netherlands and Lombardy)
Targeted value chains/sectors: Automotive, aerospace, transport, energy, machinery”

Demo case 4 - “3D-Printed large parts and complex shapes (mono-material) through emerging 3DP technologies” (Lead regions: Aragon and Piemonte)
Targeted value chains/sectors: Automotive, aerospace, shipbuilding, construction

Demo case 5 – “3D-Printed customized components for orthosis, exoskeleton and exoprosthesis” (Lead region: Emilia-Romagna)
Targeted value chains/sectors: Healthcare

5 new projects under development

Preliminary project's name	Current lead partner	Expressed interest (preliminary, open)
Multi-material 3D printing: Structural integrated electronics in 3D printed parts (Current lead region: Upper Austria)	Upper Austria (Austria)	<ul style="list-style-type: none"> Flanders (Belgium): South Netherlands (Netherlands) Aragon (Spain) South Tyrol (Italy) East Netherlands (Netherlands) Upper Austria (Austria)
AM in the Built Environment (Current lead region: South NL)	South NL (Netherlands)	<ul style="list-style-type: none"> Saxony-Anhalt (Germany) South-Netherlands (Netherlands) Aragon (Spain) Emilia-Romagna East-Netherlands (Netherlands) Malopolska (Poland) Norte (Portugal)
Efficient collaborative robot through 3D printing optimization (Current lead region: Catalonia)	Catalonia (Spain)	<ul style="list-style-type: none"> Aragon (Spain) Tampere (Finland) Emilia-Romagna (Italy) South Tyrol East-Netherlands (Netherlands) Flanders (Belgium) Upper Austria (Austria) Norte (Portugal) Gävleborg (Sweden)
Innovative hybrid (subtractive/additive) manufacturing approach for repairing added value damaged objects (Trentino)	Trentino (Italy)	<ul style="list-style-type: none"> Flanders (Belgium) Värmland (Sweden) South-Netherlands (Netherlands) Aragon (Spain) Tampere (Finland) Emilia Romagna East-Netherlands (Netherlands) Upper Austria Norte (Portugal)
Provide a toolset for maintenance for 3DP and a training course for employees to do the maintenance (South NL)	South NL (NL)	<ul style="list-style-type: none"> South-Netherlands (Netherlands) Aragon (Spain) Tampere (Finland) Emilia-Romagna (Italy) Flanders

Other new projects? A flexible and open platform able to address (timely) industry needs : 3DP Pilot Pitching Platform

3dP
PilotPitchingPlatform

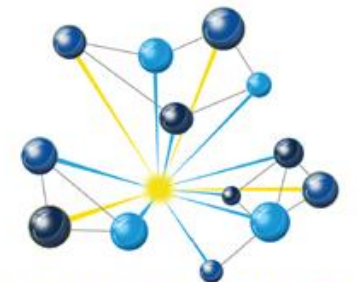
Submission of Ideas -

https://docs.google.com/forms/d/e/1FAIpQLSfJRqxVpajCEBPFeCxGgT6Y38b7s7pxZds9phbK-ftEXyatPA/viewform?usp=pp_url



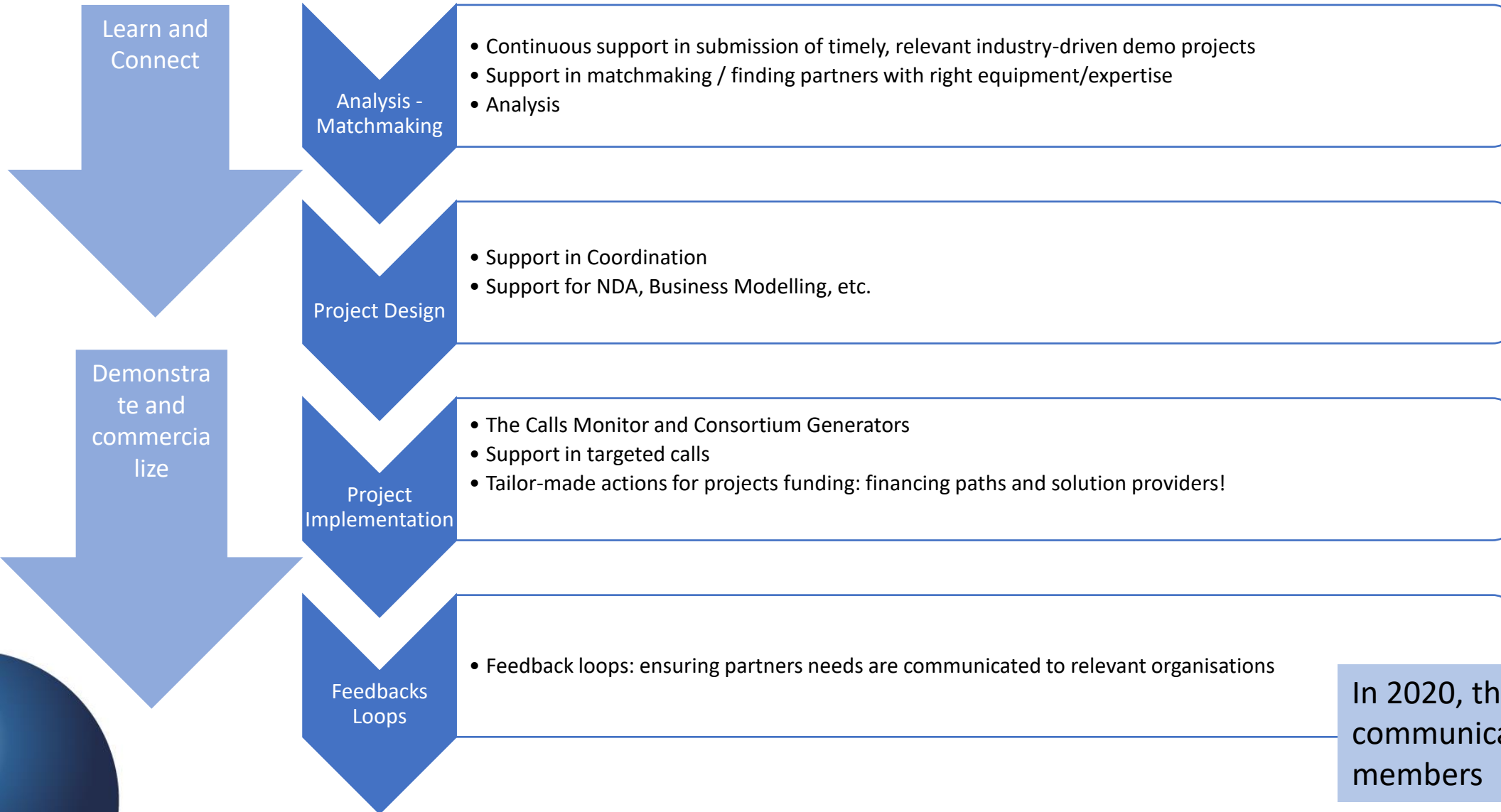
Transversal/cross- demo cases barriers adressed

- Skills / Training (Liliam)
- Standards/Certification: overall approach and specific actions in demo cases
- Awareness
- Funding



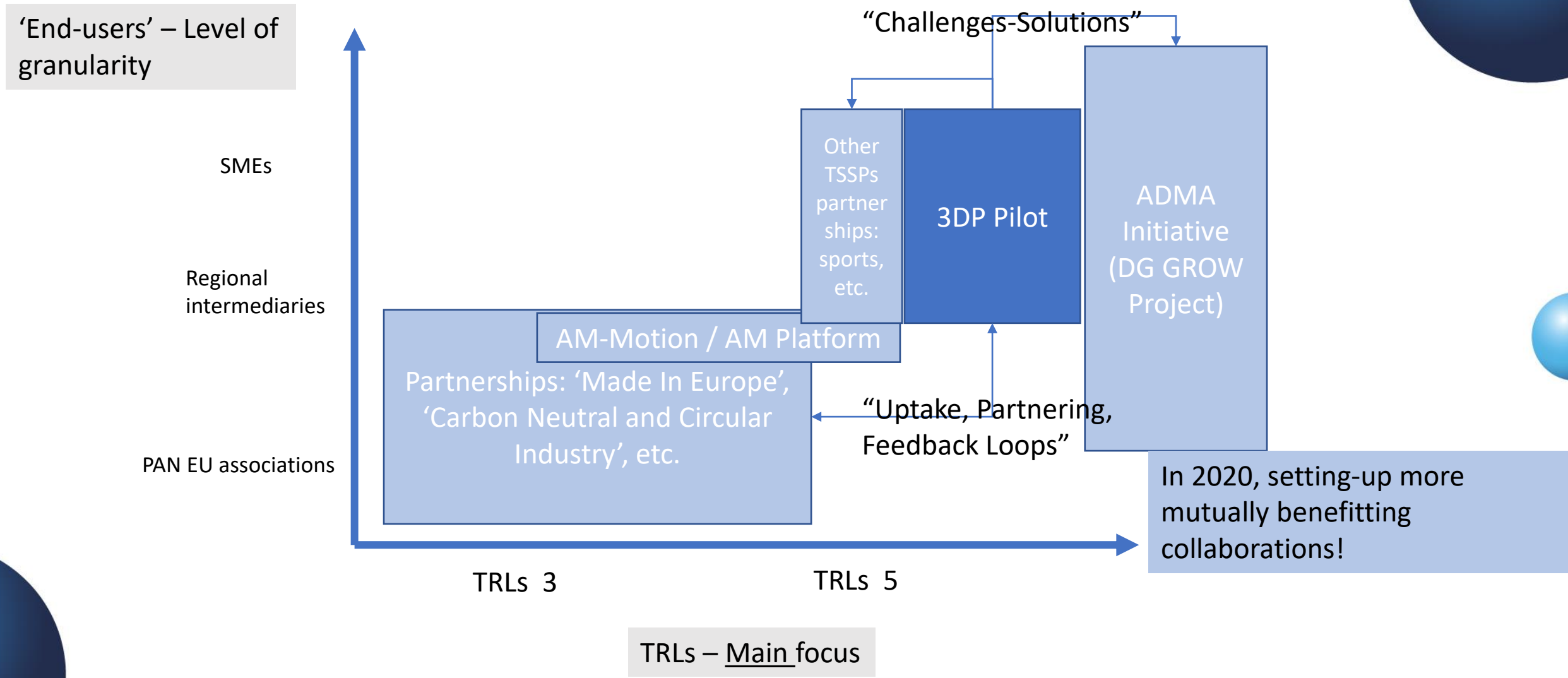
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New growth through smart specialisation

Support for 3DP Pilot Members, integrated approach



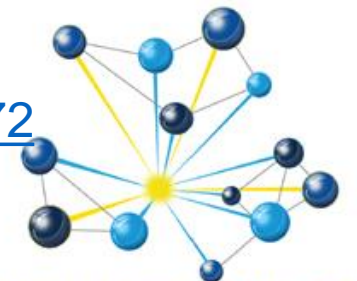
In 2020, the setting-up an online communication channel for members

In a broader landscape – Other key cross-regional AM-related initiatives (preliminary, illustrative)



Interested in further cooperating?

- Interested in contributing to **one of the 10 projects**? Please contact jean-francois.Romainville@ideaconsult.be
- Submit new **3DP Pilot 'project' ideas**:
https://docs.google.com/forms/d/e/1FAIpQLSfJRgxVpajCEBPFeCxGgT6Y38b7s7pxZds9phbK-ftEXyatPA/viewform?usp=pp_url
- Register your Facility Centre on the **3DP Pan EU** (connecting demand and supply of 3DP services) website: <https://3dppan.eu/>
- Prepare and submit proposals to the **3DP Pan EU Open Call** - Visit <https://3dppan.eu/calls>
 - ▷ Dedicated Support for 3DP Pilot Partners: feedbacks on max. 15 concepts and on max. 15 draft project proposals (contact jean-francois.Romainville@ideaconsult.be)
- Interested in other **calls listed in the 'calls monitor'**?
 - ▷ Indicate interest in Airtable
<https://airtable.com/invite/l?inviteId=invM2QK3TbhJQZgR6&inviteToken=83c1e4672f560d2b16dd610c203da754234ad493df11f67808da6e3f07b9b3c4>
 - ▷ When critical mass reached, organisation of conf calls / communications to generate consortium and projects
- Next Plenary Meeting – October 2020



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Q&A

