VI 3DP Pilot Plenary Meeting – Detailed Agenda
July 6th and 7th 2021, Remote Participation – Register here (registration is compulsory)

"A 2-days event, to enable companies to promote (and complement!) their expertise cross-borders as well as to develop projects and identify clear paths to fund them !"

The Vanguard 3DP Pilot made substantial progress over the last months, which were marked by: 1) the generation and development of new projects, aiming at addressing timely the needs of the industry and 2) the effective **funding[1] and implementation** of 9 cross-regional SMEs-led projects (each with an SME from a Pilot Member region). By reinforcing and duplicating the progress made, the Vanguard 3DP Pilot has the ambition to address the **industry needs further** and to continue facilitating the deployment and uptake of 3D Printing solutions, contributing to the emergence of smarter, more sustainable, more resilient and more competitive value chains.

In this context, the **plenary meeting will aim** at:

- Providing members and interested 'external' actors with an overview of the objectives, progress made and upcoming opportunities.
- Offering to members the opportunity to 'pitch' new project ideas, which are not under the scope of the current 'demo cases' developed within the Pilot. In order to timely address emerging industrial needs, the 3DP Pilot remains open to new ideas[2] !
- Offering to members the opportunity to embrace existing funding opportunities (Horizon Europe Selected Calls, Cascade Funding Opportunities, etc.) during two dedicated sessions. A process of pitching needs and finding missing expertise (incl. outside of the AM communities!) will be set up for registered participants.
- Further developing, during distinct sessions, 10 demo cases that are currently implemented within the Pilot (see here for more information about the 3DP Pilot objectives and structure).

As mentioned above, the event and its distinct sessions **target various groups**:

- **Clusters/Industry Associations/Facility Centres/Technology providers/Regional authorities** will have, among others, the opportunity to be informed about upcoming generic and specific (i.e. specifical Calls, Projects etc.) opportunities. Such actors will also be offered the opportunity to join current demo cases and to submit new projects, promoting expertise and addressing their needs.
- **Downstream SMEs/End-users/Technology providers,** in addition to the aforementioned aspects, will also have the opportunity to pitch new project ideas, promoting their expertise and find the complementary expertise they are looking for. These actors will also have the opportunity to be informed about specific 'SMEs-direct' funding opportunities (Cascade Funding opportunities, etc.). For clarity purposes, sessions particularly relevant for SMEs are marked, in the detailed agenda available on the following pages, with a dedicated "**SMEs !**" logo.

On the **next pages**, a detailed agenda is provided. Please register here (registration is compulsory).

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[1] Source of funding: 3DP Pan EU Open call and, to a lesser extent, combination of regional funding.
[2] A dedicated email focusing on this process will be sent to members during the week of the 14th of June 2021.

6th of July 2021	
Session	**Description**
09.00-10.30: State of Play and Way Forward	1. Welcome *(by 3DP Pilot Board:* _Wim de Kinderen_ *(Brainport DV),* _Liesbet Schruers_ *(EWI),* _Pedro Rocha_ *(Produtech)* 2. A presentation and discussion of the 3DP Pilot objectives, progress made and upcoming opportunities *(by* _Jean-François Romainville_*, IDEA Consult, Network Manager)*
10.30-11.00: Pitching Session for new project ideas **SMEs !**	All members will have the opportunity to pitch new projects ideas and indicate interest in the new project ideas. A dedicated email will be sent during the week of the 14th of June to inform them about the process.
11.00-12.00: Funding Opportunities (Cascade Funding) **SMEs !**	A selection of Cascade Funding Opportunities will be discussed (see Annexes for a preliminary list). In order to initiate fruitful and 'results-oriented' discussions, registered participants will have the opportunity to present (for a targeted call) specific needs (incl. needs beyond the AM community!).
13.00-14.00: Funding Opportunities, selected Horizon Europe IAs and RIAs **SMEs !**	A selection of Horizon Europe IAs and RIAs will be discussed (see Annexes for a preliminary list of calls). In order to initiate fruitful and 'results-oriented' discussions, registered participants will have the opportunity to present (for a targeted call) their views/specific needs (incl. needs beyond the AM community!), in order to make concrete requests and associated matchings. An email describing the process will follow.
14.00-15.00: Demo Case Session 1 **SMEs !**	Innovative hybrid (subtractive/additive) manufacturing approach for repairing added value damaged objects *Session hosts and demo case leaders:* _Paolo Gregori_ *(Trentino Sviluppo/Prom),* _Damjan Klobcar_ *(University of Ljubljana)*
15.00–16.00: Demo Case Session 2 **SMEs !**	Multi-materials components by hybrid 3D Printing manufacturing *Session host and Demo Case Leader:* _Luca Tomesani_ *(Unibo)*
16.00–17.00: Demo Case Session 3 **SMEs !**	Smart AM for Sustainable production (former Add-Subtr demo case) *Session host and Current Demo Case Leader:* _Bianca Maria Colosimo_ *(Polimi)*

7th of July 2021	
Session	Description
09.00–10.00: Demo Case Session 4 SMEs !	3D metal printing of catalytic reactor structures *Session host and project idea owner: Gerald van Santen (AddCat)*
10.00–11.00: Demo Case Session 5 SMEs !	AM in the Built Environment *Session host and demo case leader: Theo Salet (TUE)*
11.00–12.00: Demo Case Session 6 SMEs !	3D-Printed large parts and complex shapes (mono-material) through emerging 3DP technologies *Session hosts and Demo Case leaders: José Antonio Dieste (Aitiip) and Giulia Marchisio (CIM40)*
13.00–14.00: Demo Case Session 7 SMEs !	Automated removal of support structures and surface smoothing of 3D printed metal parts *Session host and Demo Case Leader: Helmut Loibl (FOTEC)*
14.00–15.00: Demo Case Session 8 SMEs !	Efficient collaborative robot through 3D printing optimization *Session host and Demo Case Leader: Oscar Alonso (Leitat)*
15.00–16.00: Demo Case Session 9 SMEs !	Multi-material 3D printing: Structural integrated electronics in 3D printed parts *Session host and Demo Case leader: Hannes Fachberger (Profactor)*
16.00–17.00: Demo Case Session 10 SMEs !	3DP for Maintenance *Session hosts and Demo Case leaders: Coen de Graaf (Brainport) and Ales Hancic (Tecos)*
17.00-17.30: Closing Session	Next Steps and transversal takeaways

Annex 1 – More information about demo cases' sessions

Title	Scope of the Project	Objective of the Session (<u>registered participants</u> will be contacted for e.g. presentation opportunities)
<u>Innovative hybrid (subtractive/additive) manufacturing approach for repairing added value damaged objects</u>	The main objective is to combine subtractive and additive manufacturing in one step and make the process automated. This will fasten up the repairing process, make it more reliable and repeatable. Using 3d printing to repair parts instead of replacing the entire component can be very convenient and cheaper for the company. *Session hosts and demo case leaders: Paolo Gregori (Trentino Sviluppo/Prom), Damjan Klobcar (University of Ljubljana)*	Present the objectives and the progress made Network of service providers and current use cases: a short presentation Opening the floor to new use cases / services providers Present an overview of targeted funding opportunities
<u>Multi-materials components by hybrid 3D Printing manufacturing</u>	The demo-case aims at facilitating the uptake and deployment of 3D Printed innovative ultra-light hybrid components based on different materials and structure combinations. In order to do so, the demo case connects existing and complementary innovation facilities in the Regions through the creation and management of a common platform. The main focus is currently focusing on a combination of 3D printed metal inserts with composite combinations for different industrial applications such as hard trim interior products, structural elements, external components, and powertrain elements. *Session host and Demo Case Leader: Luca Tomesani (Unibo)*	Present the objectives and the progress made, incl. two demonstration projects under implementation Opening the floor to new use cases / services providers ?
<u>Smart AM for Sustainable production' (former Add-Subtr demo case)</u>	Objective is to smartly combine AM and digital technologies towards sustainable productions, considering the whole chain, from design to end of life. This demo case would focus on mapping and making available existing (TRL6 and beyond) solutions available (to SMEs) in view of facilitating the green transitions. *Session host and Current Demo Case Leader: Bianca Maria Colosimo (Polimi)*	Present the objectives Discuss the actions (incl mapping of solutions) Opening the floor to new use cases / solutions providers Present an overview of targeted funding opportunities
<u>3D metal printing of catalytic reactor structures</u>	Aim of the project is to scale-up production (in volume and dimensions) of 3D metal printed intricate structures. AddCat is a start-up developing a combination of 3D printed metal structures with catalysts for air purification purposes (first market odour reduction). Because of the design freedom of 3D printing fully optimized catalyst structures can be developed and produced, improving the catalytic air purification processes immensely. AddCat validated the technique on prototype (TRL6/7) level and wants to prepare scale up of production and part size, strongly looking at price per part maintaining a good business case. *Session host and project idea owner: Gerald van Santen (AddCat)*	Short introduction of AddCat and current business phase Finding partners who can help in improving the business case of metal 3D printing Discussion on scale-up/ramp-up production and part size Discussion on which techniques are most suitable for mass production Looking further down the value chain towards end customers and their needs Discuss possibilities of collaboration and grants
<u>AM in the Built Environment</u>	The objective of the demo case is to explore new possibilities for the transition in the building and construction sector to digitization, robotization. The demo case focuses on	Present the objectives and the progress made Agree on a specific scope

Title	Scope of the Project	Objective of the Session (registered participants will be contacted for e.g. presentation opportunities)
	deploying 3D Printed solutions in the construction sector in order to redirect the focus from object oriented to process-oriented industry. In this project, a particular attention is devoted to (among others); virtual design and testing, the digital twins/Moch-ups concepts, the investigations of various solutions for design and prototyping to be then taken up by possible end-users, sensors, 'building information management', etc. *Session host and demo case leader: Theo Salet (TUE)*	Network of service providers and current use cases: a short presentation Opening the floor to new use cases / services providers
3D-Printed large parts and complex shapes (mono-material) through emerging 3DP technologies	The objective is to make a one-stop-shop offering SMEs with relevant solutions to test and validate 3D Printing-based solutions for large parts. *Session hosts and Demo Case leaders: José Antonio Dieste (Aitiip) and Giulia Marchisio (CIM40)*	Present the objectives and the progress made Network of service providers and current use cases: a short presentation Opening the floor to new use cases / services providers Present an overview of targeted funding opportunities
Automated removal of support structures and surface smoothing of 3D printed metal parts	"Reduction of time and costs for post treatment of 3D printed metal parts by using hirtisation. Hirtisation is a new and patented process by RENA Austria (Lower Austria) to automatically remove inner and outer support structures and to automatically smoothen inner and outer surfaces. Possible partners can 1) identify case studies (laser beam melting and electron beam melting), then 2) 3D print case study demonstrators via LBM and EBM (post treatment via hirtisation at FOTEC/Hirtenberger) and 3) characterise parts, cost analysis and cost comparison with status quo. Also, other new emerging solutions for post treatment could be integrated in the demo case! *Session host and Demo Case Leader: Helmut Loibl (FOTEC)*	Update / progress (interested partners so far and CORNET proposal) Opening the floor to use cases / services providers
Efficient collaborative robot through 3D printing optimization	Technical/technological perspective: Design, develop and manufacture on demand and customized new concepts and solutions of production tools for helping in the automation of industrial processes (e.g. gripping, handling, assembling…) of components in collaborative robotic stations with advanced grippers. Business perspective: Support SMEs through the design of lightweight multi-material grippers combining polymers and silicones of different hardness for advanced functionalities to solve customized needs in the industrial production environment. *Session host and Demo Case Leader: Oscar Alonso (Leitat)*	Present the project idea, the objectives and the progress made. Network of technology providers and possible applications / use cases: short presentation from previous proposal HANDLING. Opening the floor to new use cases / services providers: short presentation from interested companies. Present an overview of targeted funding opportunities. that would be great from IDEA
Multi-material 3D printing: Structural integrated electronics in 3D printed parts	The main objective is to go from 2D printed electronics to 3D printed electronics using multi-material inkjet 3DP technology. By making use of freedom of design offered by 3DP and avoiding assembly steps few prototypes of different use-cases should be elaborated in order to demonstrate the capability of inkjet based multi-material 3DP of integrated electronics. *Session host and Demo Case leader: Hannes Fachberger (Profactor)*	Present the objectives and the progress made Opening the floor to additional use cases / services providers

Title	Scope of the Project	Objective of the Session (<u>registered participants</u> will be contacted for e.g. presentation opportunities)
<u>3DP For Maintenance</u>	Increase the use of Additive Manufacturing in Maintenance, by creating a catalogue/toolbox for maintenance we want to show how AM can contribute to become more flexible, quicker, cost effective, lower stock levels, reduce CO2 footprint. *Session hosts and Demo Case leaders: <u>Coen de Graaf</u> (Brainport) and <u>Ales Hancic</u> (Tecos)*	Present the objectives and the progress made Opening the floor to new use cases / services providers

Annex 2 – Illustrative list of Calls discussed during the Funding Opportunities Sessions

Type	Examples
Cascade Funding Opportunities	• Trinity; Pulsate; WeldGalaxy; Metabuilding; Kyklos; Change2Twin; Smart EES
Selected Horizon Europe RIAs and IAs Calls	• HORIZON-CL4-2021-TWIN-TRANSITION-01-03: Laser-based technologies for green manufacturing (Photonics - Made in Europe Partnerships) (RIA) • HORIZON-CL4-2021-TWIN-TRANSITION-01-05: Manufacturing technologies for bio-based materials (Made in Europe Partnership) (RIA) • HORIZON-CL4-2021-TWIN-TRANSITION-01-12: Breakthrough technologies supporting technological sovereignty in construction (RIA) • HORIZON-CL4-2021-TWIN-TRANSITION-01-19: Improvement of the yield of the iron and steel making (Clean Steel Partnership) (IA) • HORIZON-CL4-2021-SPACE-01-22: Low cost high thrust propulsion for European strategic space launchers - technologies maturation including ground tests • HORIZON-CL4-2022-TWIN-TRANSITION-01-02: Products with complex functional surfaces (Made in Europe Partnership) (RIA) • HORIZON-CL4-2022-RESILIENCE-01-12: Functional multi-material components and structures (RIA) • HORIZON-CL4-2021-DIGITAL-EMERGING-01-31: Functional electronics for green and circular economy (RIA) • + I3 (ERDF)