

An example of cross-regional funding for demonstration projects: the 'ANSP/University Örebro-UNIBO' case

1 Aim of the present document: facilitating replications of described cross regional funding solutions

This short document aims at presenting the funding instruments and mechanisms that were used (or considered to be used) in the context of a specific project developed within the Demo Case 'Automotive 1 – 3D-Printed Hybrid components' of the VI 3DP Pilot. This project is supported by 'cross regional funding': Örebro (SE) funding will be used to fund activities that will take place in Emilia Romagna (IT). The objective of such document is to provide further information to regional authorities (beyond Örebro and Emilia Romagna regions) in order to facilitate the replication of comparable cases.

This document is structured as follows:

- ▶ In a first section, we briefly provide some general background information on the main goals of the demo case 'Automotive 1 – 3D-Printed Hybrid components' and on the specific projects under the scope of the present document.
- ▶ In a second section, the characteristics (incl. the funding instruments and the cross regional dimensions) of two interrelated projects are further described:
 - In a first project, cross regional funding will occur through a specific Swedish funding instrument for regional growth measures (the '1:1 funding instrument'): one part of the project budget will be allocated to UNIBO (Emilia Romagna).
 - In a second interrelated project, it was considered in Örebro to use part of the ERDF granted to Alfred Nobel Science Park (ANSP) in order to fund activities that would take place in Emilia Romagna. While such option was theoretically feasible and agreed upon, it will finally not be implemented due to technical barriers further described below.

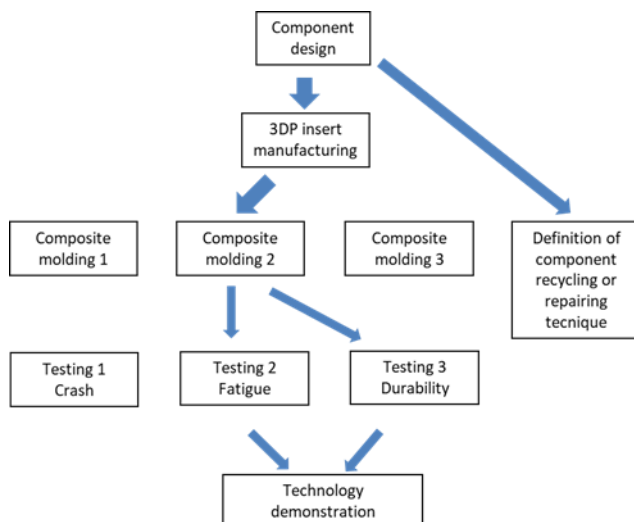
2 A demonstration project initiated and implemented in the context of the '3D-Printed Hybrid components' demo case of the 3DP Pilot (Vanguard Initiative)

The aim of the Demo Case 'Automotive 1 – 3D-Printed Hybrid components'¹ is to develop and demonstrate the added value of 3DP metals-CFRP (Carbon Fibres Reinforced thermoplastics) combinations for different automotive and industrial applications. It will do so by establishing a platform connecting entities able to provide best value for money services (see figure below), according to their specific expertise. The figure below provides an illustrative outline of required activities.

¹ Lead partner is Università di Bologna, UNIBO (Emilia Romagna, IT) and participating regions are: Aragona (ES), Norte (PT), Baden Wurttemberg (DE), Saxony (DE), Lombardy (IT), Rhone-Alpes (FR) and Region Örebro Lan (SE), Slovenia (SI), East Netherlands (NL).



Figure 1: The '3D-Printed Hybrid components' demo case: overview of generic demonstration activities



In the context of the demo case, a specific collaboration between the Örebro University, the Alfred Nobel Science Park (ANSP), the University of Bologna (UNIBO) and other actors (industrial companies from both regions), has been launched and was initiated during a plenary meeting of the Pilot. From this, one concrete project has been developed. In Region Örebro, the project is developed under the umbrella of another, ERDF-funded, project managed by Alfred Nobel Science Park. These two projects are described below.

3 Two specific projects with dedicated funding: a description

One specific project has been developed by the Örebro University, Alfred Nobel Science Park and the University of Bologna, in the context of the '3D-Printed Hybrid components' demo case of the VI 3DP Pilot. This project is financially supported, among others, by the Swedish '1:1 funding instrument' (see more information below).

In parallel / in complement, the Örebro University and Alfred Nobel Science Park's overall involvement in the 3DP Pilot (and therefore in the '3D-Printed Hybrid components' demo case of the Pilot in particular) is coordinated and supported via an ERDF-funded project called the '3DTC project'.

In each of these two related projects, cross regional funding has been considered and was deemed as technically feasible. The financial instruments used in the two projects differ and are described below. Currently, Örebro University's financial contribution in the '3D-Printed Hybrid Components' demo case is made possible through a specific funding for regional growth measures in Sweden, the so called '1:1 funding instrument' (the formal name of the Örebro University project is 'HybrAM'). While the use of ERDF for cross regional funding was, in addition, also considered (in the context of the '3DTC' project'), it turns out that this will probably not occur at the end: we however still report the technicalities, which provide insights on some bottlenecks/barriers to cross regional funding.

3.1 The 'HybrAM Project' and the 1:1 funding instrument

▶ **Activities and Objectives:**

- Activities: produce test pieces, conduct testing and analysis of the pieces, test and demonstration of inspection methods, produce reports and result dissemination.
- Outcomes: the aim is to develop a 'demonstrator' that could serve as an interesting example for industries to show the possibilities of AM by producing a 3D-printed component made by a bond between metal and composite.

▶ **Actors** involved: Örebro University and UNIBO

▶ **Project period:** 2017-12-01 – 2018-12-31



- ▶ **Total budget:** In Örebro, the budget of the project is 100.000 €² (50.000 € that comes from own funding from the Örebro University and 50.000 € from Örebro County, through the 'the governmental specific funding for regional growth measures', the so called '1:1 funding instrument'). Part of this budget will be used to fund activities that will take place in UNIBO. The part used to fund activities in Emilia Romagna comes from the '1:1 funding instrument'. Regarding UNIBO, in addition to the funding from region Örebro, the funding to cover the remaining costs comes from the University itself.
- ▶ **Focus on the 'Governmental specific funding for regional growth measures: the '1:1 funding instrument'.** This instrument has the following characteristics:
 - National funding managed by the region
 - Total budget: 50% funding and 50% actors (50% funding)
 - In many cases used as the regional co-funding of structural funds projects
 - Annual allocation
 - Can be used to finance project activities, regional business support or support for commercial services
 - Should act as a catalyst that leads to strategic development initiatives in the regions
 - Funding may be used in other EU countries – as long as the operation is for the benefit of the region
- ▶ **Cross regional dimension:**
 - At proposal stage: It was mentioned in the application that the project will be conducted with the partner region Emilia Romagna, and that an 'extended' target audience is actors in Emilia Romagna and the Vanguard Initiative.
 - Currently: It was confirmed that part of the funding from the 1:1 funding instrument will be used to fund activities in Emilia Romagna. More specifically, the funding used for Emilia Romagna will be from the 10.500€ 'Investment' mentioned in the initial budget plan. The exact amount of the cross regional funding is not known yet.
 - Remaining bottlenecks (if any): no bottlenecks at this stage.

3.2 The '3DTC' project and the ERDF funding

- ▶ **Activities and Objectives:**
 - Develop a strong regional cluster in the fields of Additive Manufacturing and Industrial Tomography in an international context.
 - The objective is that the project will be an important platform for future Triple Helix cooperation and an important resource in the development of the RIS3.
- ▶ **Actors involved:** The Beneficiary is Alfred Nobel Science Park (ANSP). Its role is to gather the public, industry and academy in the fields of AM and Industrial Tomography and enable internationalisation within these fields.
- ▶ **Project period:** 2016-01-11 -- 2019-04-30
- ▶ **3DTC involvement in the '3D-Printed Hybrid Components' demo case:** funding for activities in the 3DTC project may be used for investments supporting the development of the '3D-Printed Hybrid Components' demo case
- ▶ **Total budget for 3DTC support for the '3D-Printed Hybrid Components' demo case:** Total budget is 15.000€. ERDF money are used in the context of this project. As further described below, part of this funding was considered to be used to pay UNIBO (or another entity) as subcontractor.
- ▶ **Cross regional dimension:**

² Staff 70 000 euro; External expertise and services 7 500 euro; Premises expenses 5 000 euro; Investments 10 500 euro; Other 7 000 euro.



- At proposal stage: It was considered to use part of the money in order to subcontract UNIBO (or other possible entities outside the region able to provide such services) in order to design and print parts on the behalf of ANSP. Based on discussions with the funding regional authorities, it was confirmed that such subcontracting outside the region was possible if 1) it was demonstrated that such activities could not take place (at least not with a comparable competitive price/quality offer) in the region and 2) the general rules for subcontracting were respected.
- Currently: ANSP will not subcontract the designing and printing of some parts outside the region. Instead, the project will fund the salary of a professor at the Örebro University. In this way the university will be able to raise the amount of funding related to the payment of the printing (outside the region, at UNIBO probably): in complement to the cross regional funding made possible through the '1:1 funding Instrument' (see above), additional amount will be paid by the University for the printing.
- Remaining bottlenecks (if any): ANSP has received an approval regarding the theoretical model of subcontracting an organization from another EU country. However, due to other ongoing discussions with the regional authorities regarding public procurement, ANSP has decided not to go through with this. The discussions relate to the fact that the project 3DTC will soon reach the limit for direct procurement of 3D-printing services (i.e. the sum of the printing done so far within the 3DTC project, together with the printing ANSP wished to do outside the region, at UNIBO probably), will be higher than what is acceptable for "Direct Public Procurement" (approximately 60.000 €).