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NEWSLETTER 6: The INNOMED-UP Project NEWS, 2023

promoting **UP**cycling in
circular economy through
INNOvation and education
for creative industries in
MEDiterranean cities





the Final Conference, NTUA, GR



NEWSLETTER 6 The INNOMED-UP Project NEWS, 2023



Dear readers of INNOMED-UP Newsletter,

INNOMED-UP "Promoting UPcycling in Circular Economy through INNOvation and education for creative industries in Mediterranean cities" project is coming to its final stage. In the era of digital and green transition, we discovered that cities deal with a great problem regarding waste management, which demands direct and efficient solutions. Therefore, the main goal of this innovative research program was to articulate a revitalization strategy for the Mediterranean cities, by utilizing the productive and creative networks and interconnecting them with the contemporary and essential circular economy practices.

The NTUA research team, leader of the project, through its long-term research and hands-on engagement with the Creative and Cultural Industries and the Small-Medium enterprises (CCI SMEs), was well informed about the active and strong networks of artistic and creative businesses in the Mediterranean cities. The INNOMED-UP partnership decided to deploy these networks as far as their materials are concerned, so that the secondary materials of one business would be used as raw material for another. Moreover, we were certain that the cross-border cooperation among Mediterranean South and North can function as a mutual benefit. That could be possible, on the one hand, through the adoption of new technologies and waste management policies for the North, while on the other hand, through the consolidation of cooperative networks of the Mediterranean South.

Throughout the implementation years, and despite the crucial obstacles that Covid19- brought about, those research hypotheses of ours were confirmed and INNOMED-UP program realized numerous activities and produced important outcomes. On Monday 29th May 2023, we were pleased to present the final results of the project, within the framework of the hybrid international conference under the title: "City Creative and Circular Clusters: Towards a new Mediterranean Model". The conference organized by the research team of NTUA,

with the participation of all partners, in the historic Averof Building of the School of Architecture, NTUA.

The partners presented the main findings for the cities of Athens, Prato, Palermo, Tunis, Hebron, Nablus and Irbid, regarding the local creative economies, the possibilities for applying the principles of circular economy among the small-medium enterprises, the strategy for making of creative and circular networks of small-medium enterprises, which could contribute to the local economy and the urban sustainability. Numerous actions were implemented, such as training for businesses, workshops and meetings, involvement of the local stakeholders, signing of Memorandums of Understanding with stakeholders and institutions, in order the crucial outcome to be achieved, which was the creation of pilot circular clusters in each participating city.

We are very content as 86 small-medium enterprises in total were financially rewarded, after a public tender and budget of approximately €400.000 for: a. the production of innovative pilot products, b. the acquisition of machinery related to circular economy, c. training related to topics of circular production and distribution.

Ultimately, we are optimistic that the sustainability of the project results is secured by the digital platform, which supports the operation of the smart tools, and the two guides: a. the guide for accessing funds in the Mediterranean and b. the guide for circular economy in the Mediterranean. The guides, as well as the proceedings, are currently in the printing process and are intended for businesses, policy makers, social partners and to whom this may concern.

Sofia Avgerinou Kolonias
INNOMED-UP Project Coordinator
Emeritus Professor
National Technical University of Athens (N.T.U.A.)



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INNOMED-UP Final Conference «City Creative and Circular Clusters: Towards a new Mediterranean Model»

The INNOMED-UP conference in Athens inaugurated with the warm opening speeches delivered by the Dean of the School of Architecture NTUA: Professor Eirini Klampatsea, the Project Coordinator: Em.Professor Sofia Avgerinou Kolonias and the JTS officer of ENI CBC MED Programme: Dr Khaled Elsaadany. Antonis Mavropoulos, CEO Environmental Planning Engineering and Management S.A., gave an inspiring keynote speech under the title "From Circularity to Creativity". Greeting speeches were given by the representatives of local stakeholders and cooperating institutions which were, the Athens Traders Association, the Athens Development and Destination Management Agency of the City of Athens, the Athenian Jewelry Association, the Hellenic Confederation of Professionals, Craftsmen and Merchants, the Athens Chamber of Small & Medium Industries and the Directorate for Entrepreneurship & SMEs of the Ministry for Development & Investments.

The final results of INNOMED-UP project were presented by Em.Professor Sofia Avgerinou Kolonias in collaboration with NTUA researcher Aggeliki Demertzi. The seven city clusters were presented by the partners along with their characteristics, the roadmaps that have been followed, the specific features and the future steps to be taken for their enhancement and expansion. The presentations were held by: NTUA researcher Maria Koutsari for the city of Athens, Greece, Lorena Vidas for the Municipality of Prato, Italy, Alessandro La Grassa for the Centre for Social and Economic Research in Southern

Italy, Samia Saad for Tunis, Tunisia, Baher Dkeidek from Birzeit University for the cities of Nablus and Hebron in Palestine and last but not least Obyda Hummash from Future Pioneers team, for Irbid, Jordan. Two vivid round tables continued the program of the conference. The first one was about digital fabrication procedures and the INNOMED-UP smart tools, coordinated by Mattheos Papavasiliou, Associate Professor School of Architecture, NTUA. During the second round table, the problems and opportunities on the adoption of circular practices by the creatives were interestingly addressed and discussed. The Dean of the School of Architecture NTUA Professor Eirini Klampatsea was moderator of this round table.

The INNOMED-UP Model which is considered as the main result of the project, was also presented during the final conference by Professor Leonardo Borsacchi from Polo University in Prato, Italy. The INNOMED-UP Model for the Mediterranean is a new, place and evidence-based paradigm that can be adopted by the policy-makers, stakeholders and local/regional/national authorities and international organizations. The INNOMED-UP Guide for access to financial tools for CCI SMEs interested in Circular Economy innovation was presented by Afnan Quttieneh, researcher in Birzeit University of Palestine.



Pilot clusters

an overview of the final results

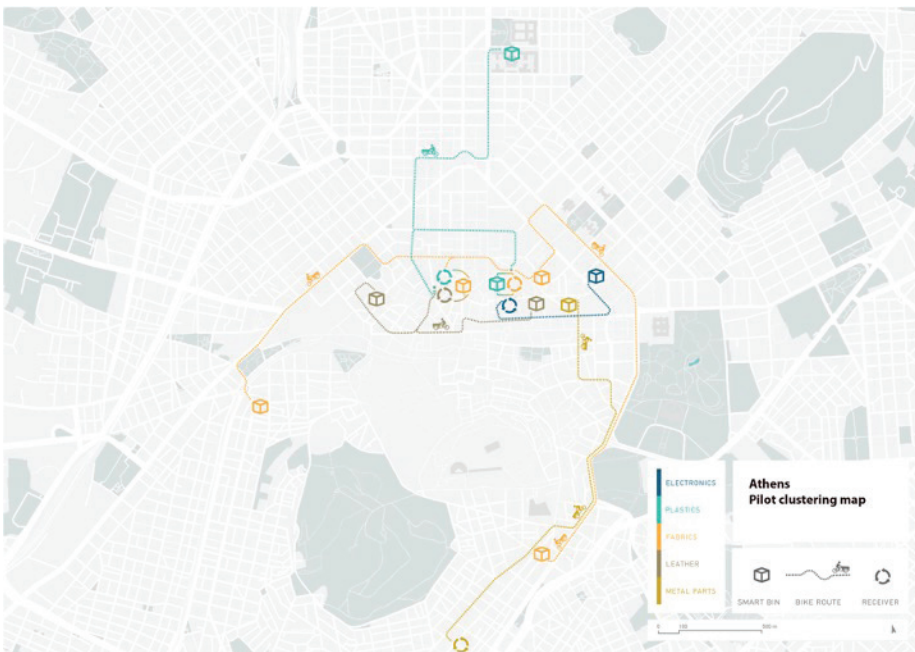


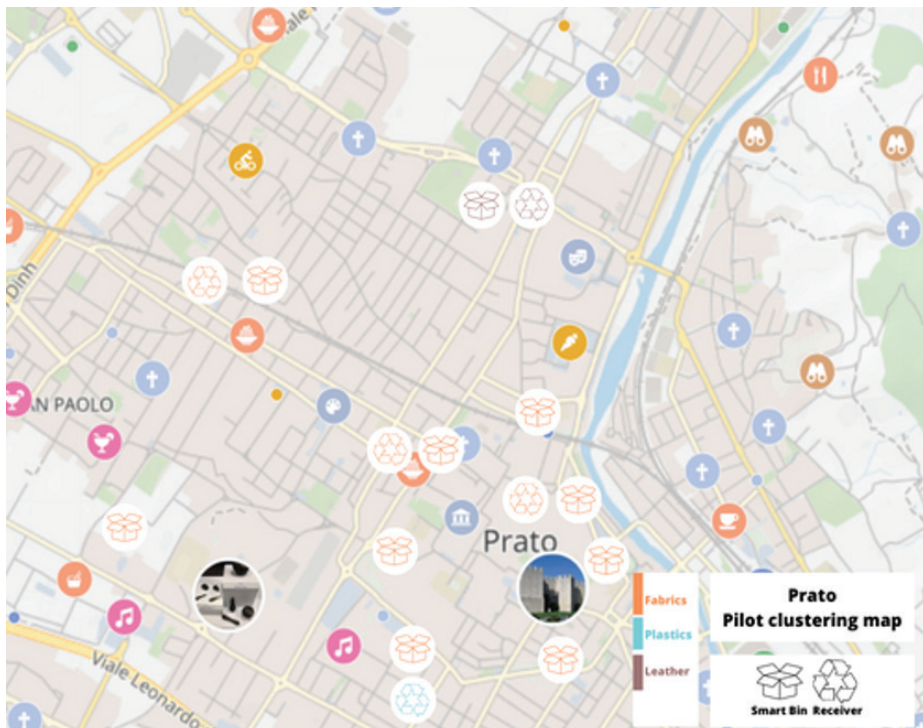
National Technical University of Athens

INNOMED UP lead beneficiary

NTUA has chosen the historic center of Athens as Pilot Area of study. It is an area characterized by a deep-rooted existence of traditional creative activities such as leather, ceramics, carpentry, gold smothery etc., as well as clothing and footwear production and merchandise. Historically, these enterprises and their operating networks played a key role in shaping of the urban space of Athens' center, becoming at the same time part of its cultural heritage. In recent years, the historical center has been more and more attractive to modern creative activities, including new fashion designers, jewellery and object designers, as well as graphic designers, architects and artists, but also touristic activities, including the emerging short stay rentals.

Ten spots were chosen for the placement of the Smart Bins in order to collect fabric (3 spots), plastic (2 spots), leather (2 spots), metal parts (1 spot), electronics (1 spot) and paper (1 spot). The SMEs that are interested to receive these materials and give to them new life were mostly subgrantees, like Thela, 3Quarters, Thanou and LOCUL. Moreover, through the platform and the presentation of the available materials future collaborations with new SMEs can be promoted. The smart bicycle is hosted in the center of Athens in the 1st Municipal Community of Athens in order to be available for the cluster and the transportation of the secondary material to the interested SMEs.





Municipality of Prato, Italy

INNOMED UP project partner 2

The pilot installed ten Smart Bins in the city, in very strategic positions. Five out of the ten smart bin stations also worked as collecting and processing points for the local host that, thanks to the presence of local laboratories and storage facilities could collect, sort and upcycle large quantities of material onsite.

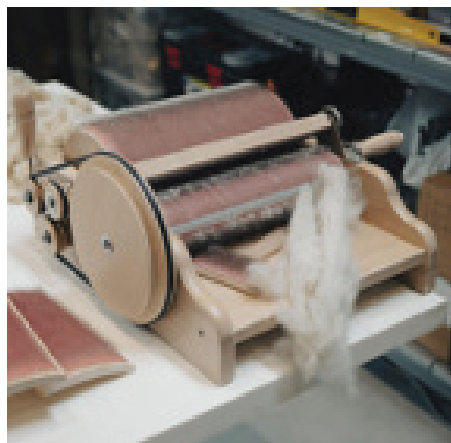
Given the textile tradition of Prato, the collected material was mostly fabric, clothes or textile waste

(scraps from textile production). Two of the smart bin stations also accepted leather, plastic and rubber, thanks to availability of ad-hoc machinery to process the same.

The choice of positioning the smart bins in private, public and non-profit associations helped to combine the social and commercial features of the pilot. By bringing together subjects of different types in the same cluster it was possible to create new symbiosis

and collaborations, which resulted in innovative ideas that could be developed in the sector with the help of creative and cultural industries.

On the other hand, the long experience of the stakeholders receiving the material in the circular economy has ensured the correct re-use and/or disposal of the material collected through the smart bins.





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CRESM, Palermo, Italy

INNOMED UP project partner 3

The Palermo pilot cluster is located in the city-centre. It also has a "satellite" division in Castelbuono, a small town within the Metropolitan City.

Nowadays, the expression "city-centre" commonly identifies two areas in Palermo, both interesting in the framework of the project:

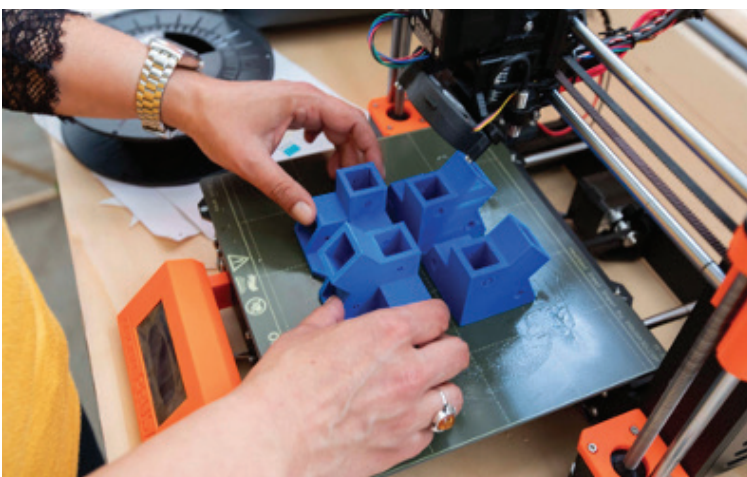
- The ancient city-centre of Palermo (the walled-city). The area is extremely rich in terms of cultural heritage, with highly gentrified neighbourhoods next to traditional inhabitants (such as families working in traditional markets), as well as university students and many migrant families. Here creative craft SMEs have been spreading in the last decade, mainly

because they focus on tourists as a target, creating hybrid production and sale spaces.

- A wider historical area (developed between the 1860s and the 1920s), the art nouveau centre. It includes a former early 1900-s industrial area, nowadays dedicated to cultural activities (Cantieri Culturali alla Zisa). Here the Municipality of Palermo entrusted CRESM – PP3 with the management of a 1.200 sqm pavilion that today hosts NOZ – Nuove Officine Zisa, an innovative handicraft workshop for the development of innovative CE practices, as well as the Info-point for consultation of SMEs. Cantieri Culturali alla Zisa hosts several other CCI SMEs. In

the surroundings it is still possible to find some of the last traditional craft workshops.

The INNOMED-UP cluster, in particular through the Innomed-up info-point, is experimenting with models of cooperation in order to develop sustainable business models and the use of secondary raw materials. It focuses on sharing equipment, knowledge and skills, in order to support innovative product design and production chains. SMEs exchange mainly wood, carton and fabric. The choice of materials was made focusing on the availability and the potential for upcycling processes, thanks to the creativity of SMEs.





Municipality of Tunis, Tunisia

INNOMED UP project partner 4

Municipality of Tunis abandoned buildings, which were mapped at the onset of INNOMED-Up, are now being evaluated as potential contributors to project roadmap; either as spaces for urban gardening or composting, or through legislative adaptation to improve building repurposing and hence contribution to Medina's socio-economic dynamic. Additionally, the union of informal plastic collectors, has been invited to become part of the INNOMED-Up roadmap, to improve working conditions of collectors through better understanding and collaboration with the Municipality of Tunis, but also to include new opportunities in other material collection (such as paper) and research new supply chains, that empowers new vulnerable communities.

INNOMED-Up is an excellent opportunity to pilot small scale circular economy operations, to find solutions that are up-scalable, financially sustainable and match Medina's reality as well as community expectations. Also, Medina's creative cultural industry richness, allow for various and diverse roadmaps. Some complex and some have great potential to leverage.

One success factor, that the Municipality of Tunis, perceives as essential for the success and the implementation of the pilot cluster, especially taking into account Medina's dense residential area, is community involvement. Medina's community is an integral part of roadmap success, and hence INNOMED-Up awareness campaigns, will need to

go hand in hand with pilot cluster implementation.

With regards to SMEs selection criteria, Municipality of Tunis focused on 3 Medina opportunities:

1. Medina's artisan workshop waste, and the existing supply chains model,
2. Smart tools within the clustering process.
3. Sustainable business model, which includes product outcome, market needs, marketability and business potential, as well as the potential financial results, including costs and expenses and estimated market size of first 3year operations.





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Birzeit University, Hebron & Nablus, Palestine

INNOMED UP project partner 5

In Palestine, there are two clusters in two different cities; Nablus and Hebron. Nablus is a Palestinian city in the northern region of the West Bank, approximately 60 kilometres north of Jerusalem. Located in a strategic position between Mount Ebal and Mount Gerizim, Nablus is considered the largest commercial and cultural center in Palestine.

Hebron is a hauntingly beautiful, ancient city twisted and torn by decades of unrest and conflict. It is the largest city in the West Bank, and second largest in

Palestine after Gaza

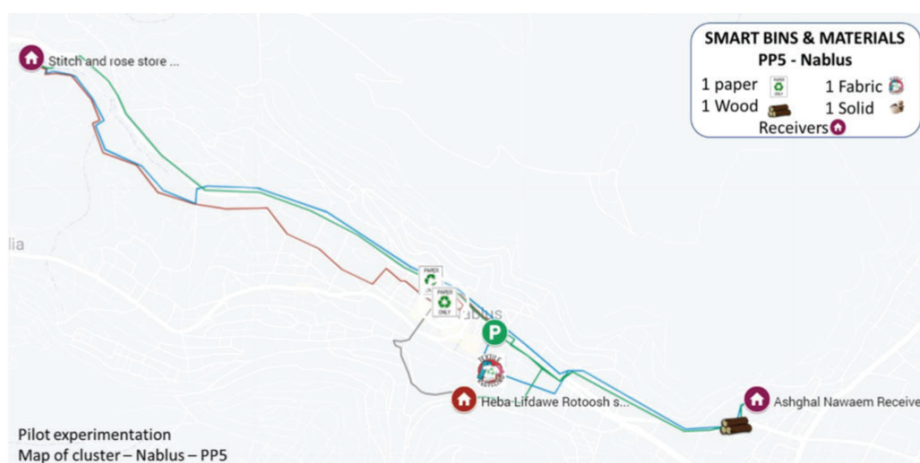
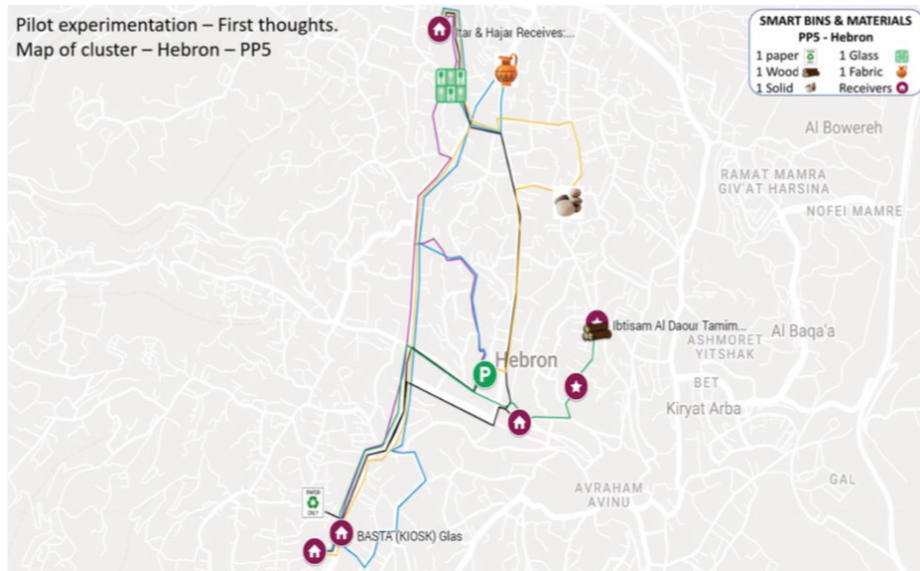
The main goals for the strategy of both cities are:

- Developing clear, smooth and sustainable supply chains of wasted materials from the existing sources
- Clustering Capacity Enhancement of SMEs in Innovation, Research, Recycling, Marketing, Design, Production and Pricing
- Encouraging key stakeholders to prepare the ground for a sustainable eco-system for the purpose of promoting, and overcoming obstacles standing in front of this sector

-To promote the sector by awareness campaigns

Main collected and used materials in Nablus cluster are; Paper, wood and Fabric while main materials in Hebron cluster are; Paper, wood, Fabric, Glass, and solid 22 sub-grants have been awarded in both cities and benefited from the above established clusters.

Pilot experimentation – First thoughts.
Map of cluster – Hebron – PP5





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Future Pioneers, Irbid Jordan

INNOMED UP project partner 6

Future Pioneers conducted two awareness workshops for the local community in order to educate them about the project activities, objectives, the importance of adopting circular economy by SMEs and how to support this concept through the establishment of the clusters based on the materials that are most needed by these SMEs. Ten people were selected and signed MOU to host the Smart Bins divided into clusters where two bicycles were following the routes to take the selected recyclables to the interested SMEs.

The pilot clustering was active since August, 2022, and the process was under our close mentorship for three months. Based on the results of the follow-up, the location of the smart bins were changed and divided into two clusters to be more active and efficient and can be reached out by the bicycles.

The smart bins were allocated on the digital platform and the bicycle driver was provided with a username and a password for the application installed on his mobile to receive the alerts of the full bins and send

reports. The main collected materials are plastic, paper and carton, clothes and fabric, wood and others.

38 sub-grants were awarded to CCI SMEs in Irbid, distributed as 20 sub-grants for pilot innovative products, 10 sub-grants for equipment and 8 sub-grants for cross border mentorship in cooperation with various universities.



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