

	<p>Value chains for disruptive transformation of urban biowaste into biobased products in the city context (WaysTUP! project)</p>
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Vision and Aims	WaysTUP! Horizon 2020 project aims to demonstrate the establishment of new value chains for urban biowaste utilisation to produce innovative and high value biobased products.
Target Audience	Industry/SMEs, private investors, academia/research, civil society/citizens, public authorities/policy makers
Key Features	<p>WaysTUP! showcased a portfolio of new ‘urban biowaste to biobased products’ processes starting from different feedstocks i.e., fish and meat byproducts, spent coffee grounds, household source separated biowaste, used cooking oils, cellulosic waste derived from municipal waste and wastewater, and sewage sludge. The project aimed to improve citizens’ perception of urban biowaste as a local resource and consumer acceptance of urban biowaste-derived products. New business models and policy recommendations were also developed.</p> <p>Pilot demonstrations took place in eight (8) European cities.</p> <ul style="list-style-type: none"> • Valencia (Spain): production of functional ingredients from animal by-products and spent coffee grounds (active peptides, enzymes for tendering, gelatin, flavours, polyphenols, carotenoids, fertilisers). • London (UK): valorisation of spent coffee grounds for sustainable production of coffee oil. • Alicante (Spain): creation of protein-rich insect flour from source-separated meat and fish by-products. • Prague (Czech Republic): used cooking oils, in conjunction with coffee oils, for bioplastics production. • Athens (Greece): production of bio-solvents from household source-separated bio-waste. • L'Alcúdia (Spain): bioethanol production from cellulosic rejection streams from municipal waste and wastewater treatment plants. • Terni (Italy): conversion of used cooking oils into biodegradable and compostable biopolyesters and bioplastics. • Chania (Greece): transformation of sewage sludge into biochar.
Achievements & Learnings	The project has successfully designed the technologies to produce nine (9) ready to market bioproducts and established ten (10) new value chains for urban biowaste utilisation. Almost 20,000 people were engaged in project activities, achieving as such an improved perception and positive attitude towards biowaste derived products. Over a multi actor participatory process a number of validated policy recommendations were produced that can enable the implementation of the bioeconomy.

	<p>To help the project partners to commercially promote the exploitable assets, an Investment Readiness Pack was prepared and showcased at the European Circular Bioeconomy Fund Forum 2023, and other events. The relevant material included business support material for:</p> <ul style="list-style-type: none"> • commercialising bioplastics for packaging applications, • investing in demo plants for bioethanol production, • licensing technologies, • creating new marketing channels or exploiting existing ones, and • securing further funding.
Launch Date [& Duration]	1/9/2019 – 31/8/2023 [48 Months]
Partners/Sponsors	<ul style="list-style-type: none"> • SOCIEDAD ANONIMA AGRICULTORES DE LAVEGA DE VALENCIA • BIOPOLIS SL • AIMPLAS - ASOCIACION DE INVESTIGACION DE MATERIALES PLASTICOS Y CONEXAS • NATIONAL TECHNICAL UNIVERSITY OF ATHENS • TECHNICAL UNIVERSITY OF CRETE • UNIVERSIDAD DE ALICANTE • BIO-BEAN LIMITED • NAFIGATE CORPORATION, A.S. • NOVAMONT SPA • PERSEO BIOTECHNOLOGY S.L. • CENTRO DE INVESTIGACIONES ENERGETICAS, MEDIOAMBIENTALES Y TECNOLOGICAS-CIEMAT • TBW RESEARCH GESMBH • METSA TISSUE OYI • NUTRITION SCIENCES NS • ADM WILD VALENCIA, SA • TERRA I XUFA SOCIEDAD LIMITADA • DRAXIS ENVIRONMENTAL SA • FUNDACION CIRCE CENTRO DE INVESTIGACION DE RECURSOS Y CONSUMOS ENERGETICOS • INTERUNIVERSITAIR MICROELECTRONICA CENTRUM • INSTITUTO VALENCIANO DE INVESTIGACIONES AGRARIAS • BIOSENSE INSTITUTE - RESEARCH AND DEVELOPMENT INSTITUTE FOR INFORMATION TECHNOLOGIES IN BIOSYSTEMS • ETAM SA • AREA METROPOLITANA DE BARCELONA • AYUNTAMIENTO DE VALENCIA • HELLENIC SOCIETY FOR THE PROTECTION OF NATURE • DIKTYO POLEON GIA TI VIOSIMI ANAPTYXI KAI KYKLIKI OIKONOMIA • HAYAT KIMYA SANAYI ANONIM SIRKETI
Further Information	<p>https://waystup.eu/dissemination-material/ https://waystup.eu/scientific-publications/</p>
Contact	<p>ETAM SA WaysTUP! Communication and Dissemination partner Mr Manolis Tsantakis mdt@etam.gr</p>

