



# Assessment of the policy & legislative framework, on urban biowaste valorisation & bio-based products, at EU, national, regional & local level

(Greece, Czech Republic, Italy, Spain & UK)

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WaysTUP!

VALUE CHAINS FOR DISRUPTIVE TRANSFORMATION OF URBAN BIOWASTE INTO BIOBASED PRODUCTS IN THE CITY CONTEXT



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement no. 818308.



**DRAXIS**  
ENVIRONMENTAL TECHNOLOGIES



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Environmental consultant specialized in circular economy & solid waste management. International experience in pioneering projects, also in business development for the industry. I have worked with national & international organizations, as well as local authorities.



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# Few words about...



Founded: 2000, Thessaloniki (main), offices in Athens & Brussels.

- Work Force: 38 (environmental scientists, engineers, developers)
- Average revenue: ~1.5M€ with 80% from EU/national R&D projects (H2020)

## Environmental Consulting Environmental Informatics



Environmental DBs  
Data Driven Analytics

Climate Services  
Scientific Exploitation

Geoinformatics  
Earth Observation

# WaysTUP! basic information

- **Title:** Value chains for disruptive transformation of urban biowaste into biobased products in the city context.
- **Funding:** Horizon 2020, CE-SFS-25-2018 - Integrated system innovation in valorising urban biowaste
- **Financing:** € 11 664 322.50
- **Project duration:** 01.09.2019 - 31.08.2023

## **Partners (27):**

SAV, BIOPOLIS, AIMPLAS, NTUA, TUC, UA, BIO-BEAN, NFG, NVMT, IMECAL, CIEMAT, TBWR, MT, NS, ADMW, TiX, **DRAXIS**, CIRCE, IMEC, IVIA, BIOS, CREVIS, REC, AMB, VAL, HSPN, SUST

## **Cooperating Countries (11):**

Spain, **Greece**, Belgium, Hungary, United Kingdom, Czech Republic, Italy, Finland, Serbia, Austria, Turkey

# WaysTUP! overall objective

*“to demonstrate the establishment of **new value chains for urban bio-waste utilisation for the production of higher value purpose products, through a multi-stakeholder approach in line with circular economy.**”*

- **PILOT demonstrations:** Valencia, London, Alicante, Prague, Athens, L’Alcúdia, Terni & Crete.
- **Different feedstocks:** i.e. fish & meat waste, spent coffee grounds, household source separated bio-waste, used cooking oils, cellulosic waste derived from municipal wastewater & waste treatment plants & sewage sludge.
- **Products:** food & feed additives, flavours, insect protein, coffee oil, bio-ethanol, bio-solvents, polyhydroxyalkanoates, ethyl lactate, long chain dicarboxylic acid, bio-plastics & bio-char.



# Objective – The assessment of policy framework

To **map & analyse** the existing EU, national, regional & local **policy framework** that has a relevance for the **valorisation of urban biowaste & bio-based products**.

The analysis aims at the establishment of a **solid knowledge base for policy support**.

- **Leader:** DRAXIS (**Contributors:** SAV, NS, CIEMAT, VAL)



# Assessment I/III



## At EU level:

- the legal framework for bio-products from biowaste is **mature only for biofuels**.
- The **legislative framework** for the rest bio-based products is still **immature** – Need for more concrete legislative framework to promote them.
- **Initiatives & projects** relevant to **policy development**, should be **strengthened & further supported**.



# Assessment II/III



## Country-specific policy framework

*(for the WaysTUP! PILOT countries)*

- The **transposition status of EU relevant legislation**, is generally in a **very good track**.
- The **national legislative framework for biowaste & biofuels**, is either **quite advanced**, or is significantly **improving**.
- The **legislative framework** for the rest of the **studied bio-based products** is still **quite immature**.



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# Assessment III/III



- There is **lack to translate** appropriately the **EU policy guidelines** into countries' **official strategies & plans**.
- There is **great variation** in the **number & content of established strategies** both at **national & regional** level.
- There is a dominant **absence of dedicated plans** for bioeconomy & for circular economy at regional & local level.



## A. EU-level policy level

### Further improve the relevant overall EU policy framework

- Fill in existing gaps, for further improvement & full adoption of the Bioeconomy Strategy & the other relevant key policies & goals.
- Strengthen the necessary supporting tools to further support & finance relative research & market initiatives.
- Adapt existing policies & standards to the needs of a bio-based economy, as today they are only based on fossil-based products.



## A. EU-level policy level

### Biowaste & Bio-based products

- Set **recycling targets** for biowaste & efficient **collection schemes**.  
Develop **new support mechanisms** for new biowaste treatment plants.
- Have more specific **regulation/ standardization** for products coming from biowaste, allowing multiple re-use, aligned with Circular Economy principles.
- Strengthen & support **various initiatives & projects**, relevant to policy development, facilitating exchange of information & interaction.



## A. EU-level policy level

### Proteins from insects

- Revise **Regulation 767/2009 & 1069/2009**.
- Further support & develop **EU policy & market framework**.
- Support **research initiatives** on risks that hinder the use of biowaste & food-waste as substrates for insect growth for obtaining biomass as source of protein.

### Biochar

- Create a holistic & coherent **cross-sectoral policy & regulations**, to grasp their potential **at scale**.
- Mature the relevant **EU & national legislations** to regulate production & application & help widespread diffusion.

### Bioplastics

- Put in place a comprehensive **EU legislative framework** for bio-based, biodegradable & compostable plastics.
- Develop the suitable **sustainability criteria**.



# CONCLUSIONS /RECOMMENDATIONS IV/VI

## B. Member States' national authorities, regional & local level

MS should...

### Adopt EU policy :

- **Adopt & fully support the related new policies & EU relevant Directives.**
- Prepare **longstanding missing strategies** & essential legislative transposition documents.

### Biofuels:

- Proceed in setting up a suitable policy & market framework for the adoption of **3<sup>rd</sup> generation biofuels**.
- Get informed & **take advantage** of the various **mechanisms** to achieve their RED II objectives (*support schemes, guarantees of origin, joint projects, cooperation between MS & third countries*).
- **Complete the RED II transposition.**



## B. Member States' national authorities, regional & local level

### Biowaste & bio-based products

- Appropriately **address existing barriers** at higher level (ex. absence of concrete set of End of Waste criteria across EU MS & safety issues concerning Animal By-Products).
- Develop good quality of suitable, regional & **local strategies & plans**.
- **Assist regional & local authorities**, with appropriate means to perform assigned responsibilities.
- Support relevant **biowaste & bio-based products' initiatives** at local & regional level.



# CONCLUSIONS /RECOMMENDATIONS VI/VI

## B. Member States' national authorities, regional & local level

### Management of biowaste

- Sound establishment of **separate biowaste collection** schemes.
- Management options for biowaste should **not be limited only to AD & composting**, hampering the **adoption of new technological solutions**, as the ones investigated in the WaysTUP! Project.



# ROOTS – a joint initiative



## ROOTS initiative

*circulaR pOlicies for changing the biOWasTe System*

To promote innovative solutions for the European circular bioeconomy & bring down the regulatory barriers blocking a more sustainable future.



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# ROOTS actions

- **ROOTS** has provided a policy paper recommendations, experience of the EU 5 projects & input from the cities in
- **NEXT STEPS:**



Policy Conference in Brussels: “Circular Policies For Changing The Biowaste System”, "physical" meeting **on 27<sup>th</sup> of September 2022**, at the European Committee of the Regions, to present ROOTS recommendations & experiences before an audience of EU policy makers & officers.



# Thank you for your attention!



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