

# D10.5: Evaluation of the citizen awareness campaign

Grant agreement number 818312





## D10.5: Evaluation of the citizen awareness campaign

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Dissemination & Communication

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#### VALUEWASTE's partners



































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## VALUEWASTE participants

No *	Participant organisation name	Short name	Country	Organisation type
1 COORDIN.	Centro Tecnológico de la Energía y el Medio Ambiente	CETENMA	ES	RTO
2	Eurizon S.L.	INNOVARUM	ES	SME
3	SAVONIA University of Applied Sciences - SAVONIA- ammattikorkeakoulu oy	SAVONIA	FI	University
4	Servicios Urbanos de Murcia, S.A.U Servicios Ferrovial	MU- FERROVIAL	ES	Large Company
5	Ayuntamiento de Murcia	MURCIA	ES	Municipality
6	Instituto Tecnológico de Aragón	ITAInnova	ES	RTO
7	Unibio A/S	Unibio	DK	SME
8	Agro Business Park A/S	ABP	DK	Company cluster
9	Asociación Española de Normalización, (Spanish Association for Standardisation)	UNE	ES	Standardisation body
10	Nutrient Recovery Systems byba	NuReSys	BE	SME
11	Ekobalans Fenix AB	Ekobalans	SE	SME
12	Ingeniería y Desarrollos Renovables, S.L.	INDEREN	ES	SME
13	GAIKER-IK4 Technology Centre	GAIKER	ES	RTO
14	Entomo Agroindustrial S.L.	ENTOMO	ES	SME
16	Kalundborg Kommune	Kalundborg	DK	Municipality
17	European Biomass Industry Association	EUBIA	BE	Industry cluster
18	Creaciones Aromaticas Industriales S.A.	CARINSA	ES	SME

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## Executive summary

This report presents the work done within the task 10.3 Citizens awareness Campaign of the Work Package 10 of the VALUEWASTE project (GA 818312) until month 36 of the implementation.

The deliverable describes the main activities carried out until October 2021 and the activities still to be implemented until the end of the Campaign. Besides, it explains the necessary changes made in the actions to adapt to the COVID19 restrictions while maintaining the core concept of the Campaign.

The document also presents the impact of Campaign over the target audiences and covers recommendations for future Urban Awareness Campaigns on biowaste derived products.







#### 1 Introduction

The VALUEWASTE project proposes an integrated approach in urban biowaste upcycling to produce high-value bio-based products, developing the first complete solution to fully valorise biowaste across Europe. Three value chains will use urban biowaste side streams as raw material for its valorisation. VALUEWASTE is developed at two very different European locations, Murcia (ES) and Kalundborg (DK) with the purpose of finding solutions both technically and socially adopted to the different socio-economic contexts.

Ultimately, the goal of the VALUEWASTE project is to produce a series of sustainable biobased products (proteins for food and feed and fertilisers, among others). Thus, it is essential for the project to conduct an effective awareness campaign targeted to citizens, focused on promoting products generated from biowaste and on communicating its applications in real life.

This document (Deliverable 10.5) gathers and describes the main VALUEWASTE Project activities regarding the Citizen's awareness Campaign (Task 10.3) carried out until October 2021 and describes the activities still to be implemented until the end of the Campaign. The document also presents the impact of Campaign over the target audiences and covers some recommendations for future Urban Awareness Campaigns on biowaste derived products.

#### 1.1 Responsible organisations

The organisation responsible for the Campaign is the Murcia City Council (Spain) with the support of Kalundborg Municipality (Denmark), both public entities.

The Citizens Awareness Campaign is the Task 10.3 of Work Package 10, whose leader is INNOVARUM. The Murcia City Council is also involved in WP1 for the implementation of the selective collection of urban biowaste in the selected locations in Murcia, which has provided this organisation with deep insights into the challenges related to biowaste education and awareness among the local population.

#### 2 Description of Task 10.3: the Awareness Campaign

#### 2.1 Main target audiences

Main target audiences of the campaign in both municipalities are:

- 1. **Children** and students from local educational centres.
- 2. **Citizens**: which can be reached through neighbourhood associations, municipal bodies civil servants or other local civil associations. Key groups of actions

Originally, the Campaign envisaged the next groups of actions:

- 1. Advertising initiatives across both municipalities: billboards and advertising materials in key public locations of each municipality presenting the products generated with the collected biowaste. Additionally, communication media presence support.
- 2. Cooking workshops on insect-derived products, presenting insect flour as a food ingredient with attractive cooking applications.
- 3. Open visiting arrangements for citizens in both cities with at least 3 "open days".
- 4. Exchange trips between Murcia and Kalundborg, with the organisation of "study trips" to foster knowledge exchange between municipalities.
- 5. Information activities targeting specific audiences: educational centres, municipal bodies, and specific info-points for citizens.

As it is possible to see in the description above, the original plan for the Awareness Campaign relied heavily on in person activities. In next points it will be explained how these activities were postponed or adapted after the COVID19 outbreak to allow for their implementation while assuring a similar impact.

## 2.2 Planning: from the Educational Campaign to the Awareness Campaign

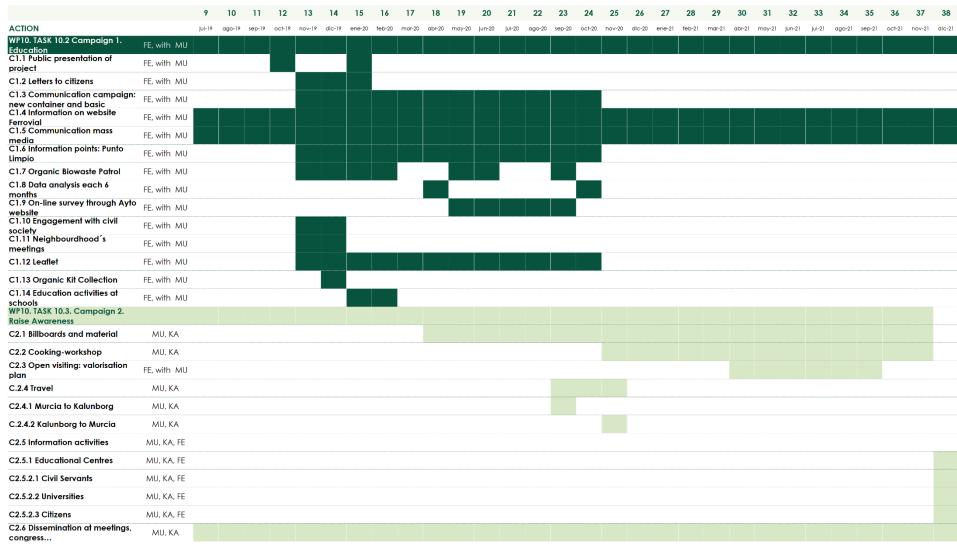
Task 10.3 Citizens Awareness Campaign (Responsible: MURCIA) is the natural continuation of Task 10.2 Campaign 1 Educational campaign (Responsible: FERROVIAL). The Educational Campaign developed an initial visual identity design, then, when the Awareness Campaign started it continued and updated the messages, visual lines, contents, and ideas; this will help to increase the impact in the citizens.

From the slogans of the Educational Campaign ADD ONE and ADD MORE (Task 10.2, Educational Campaign), the slogan of the Awareness Campaign evolved to JOIN THE CYCLE, making the most of both campaigns and materials. In this way, citizens can visually follow the progress of the project, identifying easily key core elements and project messages. The continuation of the visual line allowed for materials to be adapted from one Campaign to another.

The chart below presents the original schedule for the Educational Campaign (Task 10.2) and shows how it is connected in time to the Awareness Campaign (Task 10.3

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Table 1: Planning, from the Educational Campaign to the Awareness Campaign



KA (Kalundborg Municipality); MU (Murcia City Council); and FE (FERROVIAL)

#### 3 Actions carried out until November 2021

Due to COVID-19 outbreak, the start date of the Campaign was postponed. Instead of starting in April 2020 (M18), work related to the Campaign started in January 2021(M27). The official launching of activities was March 2021(M29).

Some of the actions listed the previous section had to be adapted to assure safety while maintaining maximum possible impact. In some cases, adaptation meant that an offline activity had to be transformed to an online activity. In others, actions had to be postponed. D10.4 presented the first draft plan of ideas and adaptations that the Campaign had to undergo to continue active.

In this regard, main groups of activities that had to be adapted include:

- 1. Cooking workshops on insect-derived products -> replaced by 8 videos about insect flour.
- 2. Open visiting arrangements for citizens -> postponed to November 2021.
- 3. Exchange trips between Murcia and Kalundborg -> postponed to June 2022.
- 4. Information activities targeting specific audiences: educational activities -> postponed to first semester of 2022.
- 5. Information activities targeting specific audiences: trainings to municipal body servants.-> `postponed to first semester of 2022.
- 6. Information activities targeting specific audiences: info-points -> This activity was resumed in September 2021.

The table in the next page Awareness Campaign, targets and KPIs (included originally in D10.4) has been updated with a new column that includes whether the actions needed to be adapted due to COVID19 and how.

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<sup>&</sup>lt;sup>1</sup> At the same time, activities related to the Educational Campaign (Task 10.2) also extended to January 2021 due to COVID19 related issues.

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Table 2: Task 10.3 - Awareness Campaign, targets and KPIs

Task 10.3 action	COVID19 impact?	KPI	Type of target	Status Murcia	Status Kalundborg
Advertising initiatives: billboards and advertising material	NO	15 materials	Internal, reference	3 Totems+33 billboards+2 roll-ups+300 aprons	2 totems+5 billboards
Cooking workshop on insect-derived products	YES, transformed to digital	2	Mandatory (GA)	8 videos	1 video produced 4-5 videos Q4 2021
Open visiting arrangements for citizens	YES, postponed	3 open days- 10 to 20 citizens	Mandatory (GA)	November 2021	Visit at UNIBIO in combination with exchange trip, May 2022
Exchange trips between Murcia and Kalundborg	YES, postponed	2 trips - 10 to 15 delegates	Mandatory (GA)	June 2022	May 2022
Information activities targeting specific audiences: educational activities	YES, transformed to digital	6	Internal, reference	First semester 2022	Q1+Q2 2022
Information activities targeting specific audiences: trainings to municipal body servants	YES, postponed	2	Internal, reference	First semester 2022	December 6th 2021
Information activities targeting specific audiences: info-points	YES, partial- postponed	4	Internal, reference	1st-September 2021 2nd-November 2021 Rest in Q1 2022	The first part will be completed in the spring of 2021. The second part will be completed in Q4 2021 + Q1 2022

#### 3.1 Main actions carried out

The next table presents with more detail the actions that have been carried out in both cities (Murcia and Kalundborg) since the Campaign started and throughout 2021. This table presents an update to the plan of actions presented in D10.4, it includes changes and updates in the calendar presented in the previous document:

Table 3: VW Awareness Campaign, activities carried out throughout 2021

Quarter	Location	Target audience	Generic action block (GA)	Action detail	Status
1	Murcia	Citizens	Advertising initiatives	Launching of advertising materials promotion on the streets: 33 billboards, 3 totems, 2 rollups, 300 aprons	Done
1	Kalundborg	Kindergarten/ schools	Information activities targeting specific audiences: educational activities	Education materials, planning and preparation. Finding external author.	Done
2	Kalundborg	Citizens	Advertising initiatives	Small videos and articles about waste valorisation	1 produced, more on schedule
3	Kalundborg	Citizens	Information activities targeting specific audiences: info-points	1 Advertising board on the streets	Done
3	Kalundborg	Kindergarten/ schools	Information activities targeting specific audiences: educational activities	From waste to new resources: introduction of materials to Kindergartens and schools	Postponed
4	Murcia	Citizens	Information activities targeting specific audiences: info-points	One info-point in September 2021 in Murcia Fair. Next one in November 2021 in Circular Economy Fair.2 more in 2022	Ongoing
4	Murcia	Citizens	Cooking workshop	Due to COVID19 restrictions, replaced by 8 videos	Done

#### 3.2 The Awareness Campaign in Murcia (Spain)

#### 3.2.1 Concept and visual identity of the Campaign in Murcia

In September 2020 and after various meetings with the project coordinator (CETENMA) and the Communication partner (Innovarum), the Murcia City Council finished the concept and visual identity design of the new Communication Campaign (Task 10.3). This new campaign has new messages, new content and new visual elements that are built upon the materials developed for the first Campaign of the project (Task 10.2 Educational Campaign in Murcia). A continuation in the visual line of the Campaign helps the target audiences follow the transition and better understand the new messages.

The main message of the Awareness Campaign works around the message and invitation "Be part of the cycle". The Campaign works with the concepts previously explained in the first Campaign of the project (Task 10.2) and works now to invite citizens to not only collect and separate the biowaste, but mainly to understand the potential of the products developed thanks to the new value chains implemented.

From "Add one" and "Add more" - Core messages of the first communication campaigns (Task 10.2- this campaign evolves now to "Add to the cycle", providing further insights on the benefits of circular economy and on the long-term benefits of the participation of the population in circular economy initiatives.

Below, it is possible to see the main visual elements of the Campaign that will be used in Murcia:



Image 1: visual elements of Murcia Campaign

#### 3.2.2 Description of the actions

#### 3.2.2.1 Advertising initiatives

#### **Press releases**

After the launching of the Awareness Campaign in March 2021, a list of press releases were delivered to the media presenting the goals of the activity:

- 1. Raising awareness about how selective collection of urban organic wastes have a positive impact
- 2. Raising awareness about new ways of food, such as insect flour

Table 4: press releases and sample media publications of the Awareness Campaign in Murcia

Link	Type
$\frac{https://centromedios.murcia.es/PUBLICO/NotaPrensa/Default.aspx?pIdPagina=25\&pIdNoticia=59451}{icia=59451}$	Press release
https://centromedios.murcia.es/PUBLICO/NotaPrensa/Default.aspx?pIdPagina=25&pIdNoticia=59158	Press release
https://centromedios.murcia.es/PUBLICO/NotaPrensa/Default.aspx?pIdPagina=25&pIdNoticia=59451	Press release
https://centromedios.murcia.es/publico/NotaPrensa/Default.aspx?pIdNoticia=60845&pIdPagina=25	Press release
https://centromedios.murcia.es/PUBLICO/NotaPrensa/Default.aspx?pIdPagina=25&pIdNoticia=59451	Press release
https://www.murcia.com/noticias/2021/03/11-la-campana-sumate-al-ciclo-conciencia-por-todo-el-municipio-sobre-la-importancia-de-la-revalorizacio.asp	Media publication
https://www.eysmunicipales.es/actualidad/murcia-lanza-una-campana-para-fomentar-el-reciclaje-de-biorresiduos-en-el-marco-del-proyecto-VALUEWASTE	Media publication
https://lasgastrocronicas.com/2021/03/11/la-campana-sumate-al-ciclo-conciencia-portodo-el-municipio-sobre-la-importancia-de-la-revalorizacion-de-residuos-organicos/	Media publication
https://murciaplaza.com/murcia-impulsa-smatealciclo-para-concienciar-sobre-reutilizacin-de-residuos-orgnicos	Media publication
https://www.murcia.com/noticias/2021/03/11-la-campana-sumate-al-ciclo-conciencia-por-todo-el-municipio-sobre-la-importancia-de-la-revalorizacio.asp	Media publication
https://www.eysmunicipales.es/actualidad/murcia-lanza-una-campana-para-fomentar-el-reciclaje-de-biorresiduos-en-el-marco-del-proyecto-VALUEWASTE	Media publication
https://lasgastrocronicas.com/2021/03/11/la-campana-sumate-al-ciclo-conciencia-portodo-el-municipio-sobre-la-importancia-de-la-revalorizacion-de-residuos-organicos/	Media publication
https://murciaplaza.com/murcia-impulsa-smatealciclo-para-concienciar-sobre-reutilizacin-de-residuos-orgnicos	Media publication
https://www.laopiniondemurcia.es/murcia/2021/05/24/25-contenedores-residuos- organicos-fama-52177771.html	Media publication
https://www.murcia.com/noticias/2021/05/23-los-mercados-de-santa-maria-de-gracia-y-la-fama-ya-cuentan-con-25-contenedores-para-residuos-organic.asp	Media publication
https://lasgastrocronicas.com/2021/05/23/los-mercados-de-santa-maria-de-gracia-y-la-fama-ya-cuentan-con-25-contenedores-para-residuos-organicos/	Media publication
https://www.murcia.com/noticias/2021/03/11-la-campana-sumate-al-ciclo-conciencia-por-todo-el-municipio-sobre-la-importancia-de-la-revalorizacio.asp	Media publication
https://www.eysmunicipales.es/actualidad/murcia-lanza-una-campana-para-fomentar-el-reciclaje-de-biorresiduos-en-el-marco-del-proyecto-VALUEWASTE	Media publication
https://lasgastrocronicas.com/2021/03/11/la-campana-sumate-al-ciclo-conciencia-portodo-el-municipio-sobre-la-importancia-de-la-revalorizacion-de-residuos-organicos/	Media publication
https://murciaplaza.com/murcia-impulsa-smatealciclo-para-concienciar-sobre-reutilizacin-de-residuos-orgnicos	Media publication



Image 2: Advertisements in paper media and digital media in Murcia (Spain)

#### TV and radio advertisements

Advertising initiatives have the purpose to raise awareness regarding how organic waste can be reused to produce bioproducts, giving them a second life, useful for the city. In total, Launching 142 advertisements on radio and television during March and April 2021.

In this regard, the TV spot for the advertisement of the Campaign in Murcia is available at project webpage at: <a href="https://VALUEWASTE.eu/communication-campaigns/#AWARENESS">https://VALUEWASTE.eu/communication-campaigns/#AWARENESS</a>



#### TV spot for the advertisement of the Campaign in Murcia

#### Muppies and info points

Since the start of Campaign, Murcia has produced engaging printed materials following the visual elements and lines of the campaign. In total, this includes, 33 billboards in the main streets of Murcia and 3 totems in *Plaza de Santo Domingo*, *Centro Médico La Flota* and *Avenida de la Libertad*. following the visual elements and lines of the campaign.



Image 3: Muppis in Murcia City

Totems had visual designs in three sides, each one covering different relevant topics:

- 1. The visual identity of the campaign.
- 2. The three value chains of the project.
- 3. The benefits of insects as a food ingredient.



Image 4: Totems in Murcia City

Both totems and billboards in the pictures above included a QR code with a link to the social acceptance survey from WP8, making the most of the resources of the project to reach its audiences.

#### 3.2.2.2 Information activities targeting specific audiences

#### **Specific info-points**

During Murcia September Fair 2021, an info point was set to inform citizens about the benefits of circular economy, the VALUEWASTE project and its final products. In this info point, citizens had the opportunity to sing up for guided visits to the Treatment Plant. So far, 45 citizens have showed interest the visit to the plant, which is planned for November 2021. Approximately, more than 600 citizens visited this info-point.



Image 5: Info-point in Murcia Fair 2021

Next, a link to a press release related to the action:

#### Link

https://centromedios.murcia.es/PUBLICO/NotaPrensa/Default.aspx?pIdPagina=25&pIdNoticia=60845#ad-image-0

#### 3.2.2.3 Cooking shows

Due to COVID-19 restrictions, the 2 cooking shows on insect flour potential as ingredient planned in General Agreement had to be replaced by 8 videos of recipes cooking with insect flour.<sup>2</sup> This change avoided any in person contact issues and allowed for action to maintain its goal and impact.

Eight recipes were prepared by the chef Pablo Gonzalez -who has two Michelin stars- and filmed for the project. The content of the videos explains the benefits of insect flour as a cooking ingredient, both for the health and for the environment. The videos also make also the most of the resources and messages of the Campaign, showing Pablo Gonzalez next to the "brown containers" promoted by the VALUEWASTE project and paying attention to organisation and setting of the action.

The videos were launched 28<sup>th</sup> September 2021 with Juan Fernando Hernández Piernas (Spanish Councillor for European Programs, Municipal Initiatives and Public Roads), policy representatives, the coordinator of the project (CETENMA) and Pablo González (chef and Michelin two-stars). The press was also invited to the event and various relevant local media echoed the presentation in newspapers and television:

Table 5: Press release & sample media publications after the videos on insect cooking presentation

Link	Туре
https://centromedios.murcia.es/publico/NotaPrensa/Default.aspx?pldNoticia=60973&pldPa	Press release
<u>gina=25</u>	110331010030
https://murcianoticias.es/el-cocinero-pablo-gonzalez-elabora-recetas-con-harina-de-insecto-	Media publication
dentro-del-proyecto-europeo-VALUEWASTE/	Tribuia publication
https://murciaactualidad.com/el-cocinero-pablo-gonzalez-elabora-recetas-con-harina-de-	Media publication
insecto-dentro-del-proyecto-europeo-VALUEWASTE/	
https://www.cope.es/emisoras/region-de-murcia/murcia-provincia/murciasan-	
javier/noticias/cocinero-pablo-gonzalez-elabora-recetas-con-harina-insecto-dentro-del-	Media publication
proyecto-europeo-VALUEWASTE-20210929 1527540	
https://www.agrodiario.com/texto-diario/mostrar/3214073/pablo-gonzalez-prueba-harina-	Media publication
insecto-como-alternativa-proteina-tradicional	·
https://www.laopiniondemurcia.es/comunidad/2021/09/28/insectos-ingrediente-secreto-	Media publication
chef-murciano-57792369.html	·
https://www.murcia.com/noticias/2021/09/28-el-cocinero-pablo-gonzalez-elabora-recetas-	Media publication
con-harina-de-insecto-dentro-del-proyecto-europeo-VALUEWASTE.asp	
https://murciatoday.com/murcia-chef-uses-insect-flour-to-cook-more-sustainable-dishes 1655252-a.html	Media publication
http://webtv.7tvregiondemurcia.es/informativos/informativos-mediodia/2021/martes-28-	Media publication
de-septiembre/	
https://www.youtube.com/watch?v=gHq8-opuQaM	Media publication
https://murcianoticias.es/el-cocinero-pablo-gonzalez-elabora-recetas-con-harina-de-insecto-	Media publication
dentro-del-proyecto-europeo-VALUEWASTE/	caia pablication
https://murciaactualidad.com/el-cocinero-pablo-gonzalez-elabora-recetas-con-harina-de-	Media publication
insecto-dentro-del-proyecto-europeo-VALUEWASTE/	3.0 p 00.1001011

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<sup>&</sup>lt;sup>2</sup> So far, this has been the biggest change the Campaign has had to apply due to COVID restrictions.

## 100 gastronomía

### El chef murciano González-Conejero hace croquetas con harina de insectos

► El cocinero, con dos Estrellas Michelin, muestra su propuesta, con alto contenido en proteínas, enmarcada en el proyecto europeo Valuewaste

■ El restaurante Cabaña Buena vista fue escenario ayer de la pre-sentación de una serie de videos protagonizados por el cocinero Pablo González-Conejero, en-marcados en las acciones de uno de los proyectos europeos en los que el Ayuntamiento de Murcia participa: el proyecto Valuewaste, puesto en marcha gracias a la colaboración entre la Concejalia de Programas Europeos, Iniciativas Municipales y Vía Pública y la de Movilidad Sostenible y Limpleza Viaria, indican fuentes municipales en un comunicado.

En los ocho vídeos presenta-dos, el chef murciano, que tiene

dos Estrellas Michelin, a través de su laboratorio gastronómico de I/D, ha elaborado distintas recetas con la harina con alto conteni do en proteínas proveniento de insectos, y suministrado por la empresa de la Región de Murcia Entomo Agrotndustrial.

Con ello se busca contribuir a concienciar sobre el consumo de fuentes alternativas de proteínas que sean sostenibles, como es el caso de la harina de insecto que es muy nutritiva y su producción está asociada a una huella ambiental mucho menor que la de cualquier otra proteina de origen animal o vegetal.

El concejal Juan Fernando



El laureado chef, que tiene dos Estrellas Michelin, sonriente junto a las croquetas, ayer.

a la presentación de la idea, ma-nifestó que «el proyecto Valucwaste es una iniciativa de eco-nomía circular urbana financiada por el programa H2020 y coordi-nada por CETENMA que se plan-tea dar solución a los grandes re-tos a los que se enfrenta la bioeconomía urbana, entre los que se encuentran desarrollar soluciones tecnológicas que permitan

Hernández Piernas, que fue ayer obtener productos de valor de nuestros residuos orgánicos, productr las evidencias necesarias de cara a que, en un futuro cercano, estos nuevos productos como los alimentos que provengan de in-sectos se puedan consumir de forma segura, y contribuir a su acep-tación por parte de los consumidores

«Proyectos como este son reflejo del firme compromiso y la

apuesta del Ayuntamiento de Murcia por la circularidad y por el desarrollo de una economia circular a nivel urbano», ha apunta-do Hernández Piernas. Uno de los pilares fundamentales para que el despliegue de este tipo de inicia-tivas sea posible es la implantación de la recogida selectiva de la fracción orgánica de los residuos urbanos, acompañada de campañas de sensibilización.

LA VERDAD

## Recetas con harina de insecto de la mano de Pablo González

Cabaña Buenavista, a través de su laboratorio de I+D, participa en esta iniciativa de economía circular que impulsa el Ayuntamiento de Murcia

#### LA VERDAD

MURCIA. El restaurante Cabaña Buenavista tiene en marcha el proyecto Valuewaste, gracias a la colaboración entre las concejalías de Programas Europeos, Iniciarivas Municipales y Vía Pública y la de Movilidad Sostenible y Limpieza Viaria. En los ocho videos presentados, coincidiendo con la visita del edil Juan Fernando Hernández Piernas, el chef murciano, a través de su laboratorio gastronómico de I+D, ha elaborado distintas recetas con la harina con alto contenido en proteínas proveniente de insectos, y suministrado por la empresa murciana Entomo Agroindustrial.

#### Proteínas sostenibles

Con ello se busca contribuir a concienciar, según informó el Ayuntamiento en una nota, sobre el



El chef, ayer, en los fogones durante la presentación. масно саясла / аси

constimo de fuentes alternativas de proteínas que sean sostenibles, como es el caso de la harina de insecto que es muy nutritiva y su producción está asociada a una huella ambiental mucho menor que la de cualquier otra proteina

de origen animal o vegetal.

Según Hernández Piernas, «el proyecto Valuewaste es una iniciativa de economía circular urbana financiada por el programa H2020 y coordinada por CETEN-MA que se plantea dar solución

a los grandes retos a los que se enfrenta la bioeconomía urbana, entre los que se encuentran desarrollar soluciones tecnológicas que permitan obtener productos de valor de nuestros residuos orgánicos, producir las evidencias necesarias de cara a que, en un futuro cercano, estos nuevos productos como los alimentos que provengan de insectos se puedan consumir de forma segura, y contribuir a su aceptación por parte de los consumidores».

#### Sensibilización

«Proyectos como este son reflejo del firme compromiso y la apuesta del Ayuntamiento de Murcia por la circularidad y por el desarrollo de una economía circular a nível urbano», apuntó Hernández Piernas. Uno de los pilares fundamentales para que el despliegue de este tipo de iniciativas sea posible es la implanta-ción de la recogida selectiva de la fracción orgánica de los residuos urbanos, acompañada de campañas de sensibilización y la infraestructura necesaria que aseguren una alta calidad del residuo recogido de forma que sea posible su correcta valorización y posterior salida a mercado.

El Ayuntamiento continúa trabajando en la Estrategia de Economía Circular del Municipio de Murcia, cuya elaboración se encuentra en la recta final, y que será presentada en noviembre.

Image 6: paper media publications after the presentations of the videos on the insect cooking workshop







Image 7: images of the day of the presentation of the videos on insect cooking

#### 3.3 The Awareness Campaign in Kalundborg

The Awareness Campaign in Kalundborg is following the visual lines defined by the VALUEWASTE project, which is present in the project website as well as in the project dissemination materials.

#### 3.3.1.1 Advertising initiatives

Projekt Valuewaste: En mere bæredygtig

fremtid med bioaffald

Main actions carried out in the period include:

- 1. **Information points** in municipality's pylons, which are placed at access roads to the city and in other larger urban communities in the municipality.
- 2. Several press releases in the local newspaper and in the local TV station TV-Kalundborg.
- 3. Publication of articles in social media and the Municipality website





Projektet Valuewaste giver en fremragende mulighed for at være med til at skabe en mere bæredygtig fremtid, hvor bioaffald også anses som en værdifuld ressource. Projektet, som Kalundborg Kommune arbejder på i samarbejde med Uniblo, Kalundborg Symbiosen og partnere i fem andre EU-lande, er finansieret af EU.

Hvert år producerer en europæisk borger i gennemsnit 200 kg bioaffald. Det betyder, at der ophobes mellem 118 og 138 millioner ton bioaffald i EU hvert eneste år.

I dag formår de eksisterende systemer ikke at udnytte bioaffaldets fulde potentiale, og flere steder i Europa bliver bioaffaldet kørt direkte på lossepladsen. I Danmark ender størstedelen af

#### Projekt Valuewaste: En mere bæredygtig fremtid med bioaffald



Er du klar til at købe gødning, dyrefoder eller mad, der er lavet af bioaffald? Fortæl os din mening. Besvar spørgeskemaet senest den 31. maj 2021.

Bioaffald består af en del værdifulde ressourcer og materialer, som ikke bliver genanvendt og

Image 8: visual and social media advertisement actions











DATO 06. maj 2021

### Kalundborg Kommune i unikt samarbejde om værdifuld anvendelse af bioaffald

Projektet Valuewaste giver en fremragende mulighed for at være med til at skabe en mere bæredygtig fremtid, hvor bioaffald også anses som en værdifuld ressource. Projektet, som Kalundborg Kommune arbejder på i samarbejde med Unibio, Kalundborg Symbiosen og partnere i fem andre EU-lande, er finansieret af EU.

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I dag formår de eksisterende systemer ikke at udnytte bioaffaldets fulde potentiale, og flere steder i Europa bliver bioaffaldet kørt direkte på lossepladsen. I Danmark ender størstedelen af bioaffaldet i forbrændingsanlæg eller som kompost. Det betyder, at værdifulde ressourcer går tabt. Dét skal der ændres på, for bioaffald har langt større potentiale.

#### Bæredygtig genanvendelse af bioaffald er vejen frem

"Når bioaffald brændes eller deponeres, udnytter vi det ikke optimalt. Det vil vi gerne være med til at ændre på. Vi er derfor i Kalundborg Kommune glade for at kunne bidrage til projekt Valuewaste. Sammen med Unibio, Kalundborg Symbiosen og de øvrige projektpartnere skal vi undersøge, hvordan vi skaber mere værdi med fokus på en bæredygtig genanvendelse af bioaffald", fortæller Johan Ib Hansen, Senior Project Manager i Kalundborg Kommune.

I dag er det en stor udfordring at omdanne bioaffald til værdifulde produkter. Det skyldes, at omkostningerne er alt for høje. Med projekt Valuewaste vil man undersøge, hvordan man skaber succesfulde forretningsmodeller for at udvikle produkter, der er baseret på bioaffald.

"I Unibio har vi en teknologi, der omdanner metan til protein. Så hvis symbiosen kan omdanne bioaffaldet til biogas med et højt metanindhold til en overkommelig pris, kan vi med lethed sammen omdanne bioaffald til protein sammen med Symbiosen. For os hos Unibio er der et kæmpe potentiale i at være en del af Symbiosen og deltage i ValueWasteprojektet. Det er med projekter som dette, at vi sammen kan udvikle fremtidens løsninger", siger Michael Jensen, SVP i Unibio.

#### Borgernes indsats er guld værd

En vigtig del af projektet er at undersøge danskernes parathed til at bruge produkter, der er baseret på genanvendt bioaffald. Det kan være produkter som gødning, foder og mad.

"Borgernes bidrag er meget vigtigt i dette projekt. For at vi kan lykkes med projektet, så er det nødvendigt, at danskerne besvarer spørgeskemaet og giver deres mening til kende. De har en unik mulighed for at have indflydelse på, hvordan vi kan gøre bioaffald endnu mere værdifuldt. Deres besvarelser er meget værdifulde for projektet og for den bæredygtige fremtid", uddyber Johan Ib Hansen.

Alle er velkomne til at deltage i projektet og besvare spørgeskemaet ved at følge dette link: <a href="https://link.webropolsurveys.com/S/916FDC4F41681179">https://link.webropolsurveys.com/S/916FDC4F41681179</a>
Læs mere på projektets hjemmeside: <a href="https://www.valuewaste.eu">www.valuewaste.eu</a>

Kontakt

Sagsansvarlig: Johan Ib Hansen Plan, byg og miljø

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Kalundborg Kommune Holbækvej 141 B 4400 Kalundborg

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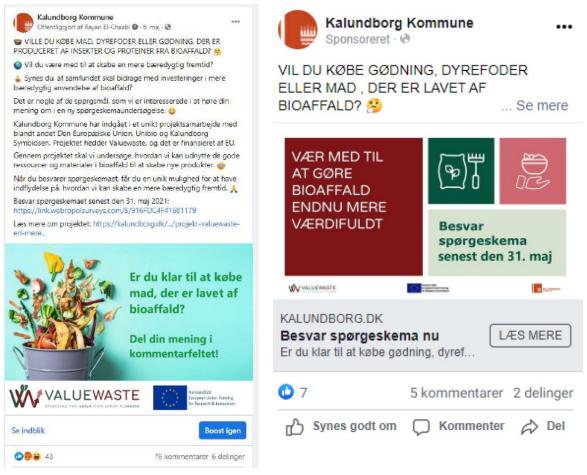


Image 10: social media information actions of the Awareness Campaign in Kalundborg

#### 4 Impact of the Awareness Campaign

The actions carried out by the campaign in Murcia reached its target audiences with different levels of impact. In this regard, it is relevant notice that the impact of different actions over its audiences needs to be measured in different ways depending on its characteristics and on the channels used (online and/or offline). In some cases, estimations are made to give approximate numbers.

#### 4.1 Impact of the actions in Murcia (Spain)

## 4.1.1 Printed advertising initiatives

The 3 Totems and 33 muppis were set in the streets with the highest affluence of people in the city centre. It is challenging to determine the exact number of people thar visualised and read the materials, however, thanks to the QR link included both in muppies and totems it is possible to know that 273 went through its content and scanned the code.

On the other hand, 142 advertisements were broadcasted on local radio and television, which register maximum audience numbers of 106,000 people a day.

#### 4.1.2 Social media

Also, the campaign has been covered by the Murcia City Hall social media channels with 3 posts. The Murcia City Hall has 39k followers on Twitter, 18.9k on Instagram and 35.9k on Facebook, and these posts were visited 125.342 times by 54.322 different people.

#### 4.1.3 Info points

The Info Points set up in September 2021 during the Murcia Fair contacted with 600 people who showed interest in VALUEWASTE project. Of them, almost 50 people signed up for a tour in Cañada

Hermosa Treatment Plant in November 2021. This info-point was then widely covered by local newspapers and radio (10 in total) as well as in social networks (6 in total).

## 4.1.4 Cooking workshop: video recipes

On the 30th of September of 2021, the 8 videos in which Pablo González (two stars Michelin) showed recipes with insect flour were published in social media. The response after the publication was noticeable, gathering in few weeks more than 300 views and 21 press mentions. During the presentation event, representatives from 4 televisions channels, 2 radios and 2 printed newspapers attended.

#### 4.1.5 Press releases

For the Raise Awareness Campaign, in total, more than 5 press releases have been delivered. Repercussion of these press releases among the local media -who has been following the project since its starthas been high. In total, more than 28 media publications have echoed the press releases, both in digital and printed formats.

#### 4.2 Impact of the actions in Kalundborg (Denmark)

Kalundborg Municipality's main activities during the last months have focused on social media activities, press releases and articles for general news. These actions have received the following impact:

- 1. The Kalundborg Municipality Facebook page has 5353 followers who have had the opportunity to get information about the value waste project through postings. The article on the municipality Facebook site is seen 23127 times by 7959 different people.
- 2. On Kalundborg Municipality's website, the article has been on the front page for more than 14 days, which has made it immediately available to more than 10,000 citizens who have visited the home page during the period.
- The article in TV-Kalundborg has potentially reached many of Kalundborg citizens, as it is a
  website that is frequently visited. Information about VALUEWASTE are also provided to
  approx. 3500 employees in Kalundborg Municipality who have access to the municipality's
  intranet.

#### 4.3 Feedback from citizens

During the different sets of activities carried out, citizens expressed different opinions and feedbacks regarding the project and in regard to the valorisation of organic waste:

- 1. They showed a huge interest in the revalorization of organic waste, indicating the general lack of information in our society about this type of topics and about how to make the most of our organic waste and process.
- 2. They were interested in knowing more details about the VALUEWASTE project, finding it both interesting and state-of-the-art.
- 3. At the beginning, they looked reluctant to see the food future based on insects, but their opinion changed after understanding the facts and figures about how feasible and healthy food ingredients coming insects can be. Besides, the benefits to the environment and the possibility to reduce their food carbon footprint was also valued positively.

All in all, the activities carried out so far have proved to be successful and to reach a high impact. Online channels and actions have proven successful in reaching bigger audiences, and at same time, traditional marketing channels as TV or radio have provided a solid support, specially at local level. In general, this sets the floor for the future activities to be carried out in 2022.

#### 5 Next steps

From November 2021 until the end of the Campaign (June 2022), the Murcia City Council and Kalundborg Municipality will focus on carrying out any pending planned activities that had to be postponed or adapted due to the COVID19, as well as any remaining activity originally planned for 2022. Mainly, this covers:

- 1. Open visiting arrangements for citizens: valorisation plants both in Kalundborg and Murcia
- 2. Exchange trips between Murcia and Kalundborg
- 3. Information activities targeting specific audiences
- 4. Video production: 4-6 videos in Kalundborg, describing how biowaste is transformed into valuable products that can be used for protein and food

#### 5.1 Murcia

The following actions will be developed during the last part of the project (last semester of 2021 and first semester of 2022):

## 5.1.1 Open visiting arrangements for citizens to the VALUEWASTE Plant

The Murcia City Council has started organising the visit of citizens to the VALUEASTE Plant in Murcia (Spain). Citizens have already started registering their interest for the activity, which promotion was launched back in September 2021 during the Murcia Fair (for more information, go to Point 3 in the section of *Specific info-points*). During the last week of November 2021, Murcia City is going to organise the Circular Economy Week, a relevant local event on sustainability. During the development of the event, it is going to organise at least 3 guided visits to the VALUEWASTE Plant.

#### 5.1.2 Exchange trip between Murcia and Kalundborg

The activity is planned for May-June of 2022.

#### 5.1.3 Information activities targeting specific audiences

In detail these activities include:

- 1. Educational Centres: during first semester of 2022
- 2. Municipal bodies, civil servants, neighbourhood associations and other local civil associations: during first semester of 2022
- 3. Specific info-points and exhibitions during November 2021 in Murcia Circular Week. Some of the actions to be carried out include:
  - Presentation of Local Circular Economy Strategy
  - Specific presentations and speeches regarding circular economy
  - VALUEWASTE info-point.
  - Visits to Waste Treatment Plant and the VALUEWASTE project site.
  - BIOWASTE Club to be organised in the frame of HOOP PROJECT (H2020)
  - Showcase for circular economy companies in the City Centre.

#### 5.2 Kalundborg

The following actions will be developed during the last part of the project (last semester of 2021 and first semester of 2022):

#### 5.2.1 Audio visual materials

Kalundborg Municipality will release of a series of **4-6 small videos in last quarter of 2021**, describing how biowaste is transformed into valuable products that can be used for protein and food. The themes for the videos are:

- 1. From biowaste to bioprotein UNIBIO (Almost finished)
- 2. Sorting of waste (focus on biowaste)
- 3. From biowaste to biogas
- 4. From biowaste to insect protein
- 5. From biowaste to fertilizer
- 6. How to make healthy and delicious food with insect protein and Uniprotein®

Additionally, Kalundborg plans on producing a video with the topic "you can cook good and healthy food with insect proteins" for younger audiences.

#### 5.2.2 Exchange trip between Murcia and Kalundborg

Kalundborg Municipality will support the organisation of exchange trip with guests from Murcia.

#### 5.2.3 Information activities targeting specific audiences

These activities will target:

- 1. **Employees in Kalundborg Municipality** (6th December).
- 2. **Citizens**, through the attendance to fair and congress to disseminate the results of the project. These include:
  - DM in skills
  - The Biotech championships. Both the Danish Championships in skills and the Biotech championships are national events that take place in Kalundborg Municipality with visitors from all over Denmark.
- 3. Schools in Kalundborg and in Denmark, production of educational materials: the education material will be based on the upcoming videos and teacher's guide will be produced. It will support the teacher in planning the education with focus on waste treatment as a theme for project work and how the videos can support the project-oriented teaching.

#### Deliverable D.10.5 | VALUEWASTE Project | Grant agreement number 818312

As a summary, the next table shows with more detail the actions planned for Awareness Campaign for 2021 and 2022:

Table 6: actions planned for Awareness Campaign for the last quarter of 2021

Quarter	Location	Target audience	Generic action block (GA)	Action detail	STATE
4	Murcia	Citizens	Cooking workshop	Due to COVID19 restrictions, replaced by 8 videos	Done
4	Murcia	Citizens	Open visiting arrangements for citizens	To be done in November 2021, during Circular Economy Fair (3 visits for 10-20 citizens)	Scheduled
4	Kalundborg	Citizens	Advertising initiatives	1-2 videos will be produced Q4 2021/Q1 2022 about waste valorisation	Scheduled
4	Kalundborg	Citizens	Advertising initiatives	4-5 small videos and articles about waste valorisation	Scheduled
4	Kalundborg	Citizens	Information activities targeting specific audiences: trainings to municipal body servants	Theme day for employees within the municipality's technical and planning departments on December 6th. 2021	Scheduled

Table 7: actions planned for Awareness Campaign for 2022

Quarter	Location	Target audience	Generic action block (GA)	Action detail	STATE
1	Murcia & Kalundborg	Citizens	Exchange trip between Murcia and Kalundborg	Delegates come from Murcia to see waste valorisation work and production of BIO protein in May 2022	Scheduled
1	Murcia	Schools	Information activities targeting specific audiences: educational activities	Talks in schools	To be planned
1	Kalundborg	Citizens	Advertising initiatives	Launching info about VALUEWASTE on SoMe- Small videos on sorting waste	Scheduled
1	Kalundborg	Citizens	Open visiting arrangements for citizens	Arrangement on UNIBIO where citizens can see their facilities and learn about it in February 2022 (arrangement at UNIBIO)	Scheduled

#### Deliverable D.10.5 | VALUEWASTE Project | Grant agreement number 818312

Quarter	Location	Target audience	Generic action block (GA)	Action detail	STATE
1	Kalundborg	Kindergarten/ schools	Information activities targeting specific audiences: educational activities & cooking workshop	Inviting a Danish Chef specialised in cooking with insects and arrange visits to schools to do a demonstration/cooking show. It is being considered to make a video showing a chef cooking with insect and Uniprotein. It will be available for teaching.	In planning
1	Kalundborg	Citizens	Cooking workshop	Workshop on insect protein and food. The cooking workshop is planned to be implemented at DM Skills 28-30th of April 2022 https://skillsdenmark.dk/	Scheduled
1	Kalundborg	Kindergarten/ schools	Information activities targeting specific audiences: educational activities	From waste to new resources: introduction of materials to kindergartens and schools	Scheduled
2	Kalundborg	Citizens	Information activities targeting specific audiences: info-points	Participation in two major national arrangement held in Kalundborg: DM Skills 28-30th of April 2022 & Biotech Championship 27th of January	Scheduled
2	Murcia	Civil Servants	Information activities targeting specific audiences: trainings to municipal body servants	To be planned	In planning
2	Murcia	Citizens	Information activities targeting specific audiences: info-points	To be planned	In planning
2	Kalundborg	Kindergarten/ schools	Information activities targeting specific audiences: educational activities	Preparation of a children's book and other teaching materials	Under revision
2	Murcia & Kalundborg	Citizens	Follow up	Follow up, evaluation	Scheduled
2	Murcia & Kalundborg	Kindergarten/ schools	Follow up	Follow up, evaluation	Scheduled

#### 6 Conclusions

Both the Murcia City Council and Kalundborg have been able to carry our success Awareness activities in the past month, making the most of its resources and reaching a significant relevant audience in Murcia (Spain) and (Denmark). Some of the main actions developed so far include advertisement materials and press releases and videos. Moreover, information activities started in September 2021 and will continue to until June 2022. It is in that date (June 2022) that exchange trips between Murcia and Kalundborg will also be launched, as the Campaign is to be continued in the months to come.

All in all, the Awareness Campaign in Murcia (Spain) and Kalundborg (Denmark)-Task 10.3- has been smoothly carried out, despite the inconveniences and limitations imposed by COVID19.

## 6.1 Recommendations for future awareness campaigns on biowaste products

Due to COVID19 outbreak, some actions have had to be postpone such as info activities for students and citizens. Having this into account, some recommendations for future Awareness Campaigns for biowaste derived products are:

#### 6.1.1 The messages

To spread the message about the benefits of insect-based food, it is crucial to start with the established environmental and health problems derived from our current eating patterns: such as the carbon footprint, the edible rate of meat or the European dependency on protein imports from third countries.

Then, it is crucial to let citizens know how important the revalorization of urban organic waste is, present the products that can be produced and how any community could directly benefit from them. This information gives a meaning to the selective separation of wastes at home and helps engage the population with the action.

#### 6.1.2 In person activities

Face-to-face actions such as info-points seem to have more direct impact in citizens locally. The message is delivered more clearly, and it is possible to solve questions and queries directly.

#### 6.1.3 Thinking out of the box

Original actions and the use of digital channels is received positively. Cooking shows or videos seem to grab the attention of the audience more than traditional marketing actions.



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