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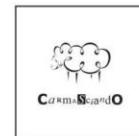


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Citizens engagement PLAN for CSS2 co-creation and deployment

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1. Executive Summary

The report concerns the deliverable D. 4.2 Citizens engagement Plan for CSS2 co-creation and deployment. The report consists of two parts:

1. an analysis of how the concept of citizens' engagement is understood for the purposes of the FRONTSHIP project. The analytical part refers to the studies produced as part of the analyses. The main element of this part of the report is the development of a definition of citizens' engagement for the purposes of the project.
2. the planned activities for involving citizens in the CSS2 food&feed activities. Due to the fact that some of the tasks will be transferred to WP7 the report contains information about the coherence of the plan with the activities of WP7 and their complementarity.

2. Scope and Structure of the IPCSS2

Text and descriptions

The scope of Implementation Plan for Circular Systemic Solution 2 is to describe the plan of activities related to engagement of local communities through the following community-based innovation schemes and actions for:

- Increasing awareness on waste prevention, separate waste collection with particular focus on food and kitchen waste
- Guaranteeing high quality biowaste feedstock and at the same time reduce the biowaste disposal to landfill. This will

A scheme of dedicated campaigns at regional level where citizens will be engaged will be presented with the main target to enhance innovation capabilities of regional farmers to face challenges related to lands abandonment due to reduced soil quality and increase incomes opportunities through sustainable practices in marginal lands providing business diversification opportunities

3. About FRONTSH1P

FRONTSH1P aims at ensuring green and just transition of the Polish Łódzkie Region towards decarbonization and territorial regeneration through demonstration at TRL7 of highly replicable regenerative circular systemic models and solutions that address the current challenges and needs of the Region, transforming them into opportunities for economic growth, social inclusion, decarbonisation of systems of production and consumption, improvement of the quality of life for citizens, reconnection between the urban and rural context. Our ultimate goal is to guarantee a long-lasting effect of this transition by building-up a permanent Circular Regional Cluster applying Circular Governance Model by regional engaging local and national public authorities to ensure that long term planning and deployment is achieved in Łódzkie Region and replicated throughout Europe, leveraging on mutual learning with four regions in Italy, Greece, Portugal and The Netherland that will act as knowledge providers and as replicators.

The main goal of the CSS2 is to develop methodology and toolkits to support the regional transition to a circular economy, taking into account various types of local sources of waste as raw materials for reprocessing, reusing, recycling and upcycling. A Circular Governance Model will be defined including the possibility to launch a Special Purpose Vehicle to engage all actors and act as umbrella organisation to operate the Regional Cluster.

The CSS2, strictly interconnected with other CSSs, has key innovations in i) CO₂ assisted pre-treatment of agro-industrial waste combined with biotechnological treatments for the obtaining of Free Fatty Acids (FFAs) as component for foaming biomaterials ii) Establishment of innovative oil crops cultivations (i.e. sunflower, milk thistle) in marginal and abandoned agricultural areas to obtain vegetable oils that can be transformed in biodegradable biolubricants formulations, bio-oils for insulating materials and locally available animal feed supplements iii) production of biobased building blocks (diols and dicarboxylic acids) from second generation feedstock (from regional agro-industrial waste rich in sugars) for the formulation of new compostable bioplastics (compostable bags for OFMSW collection).



4. Citizens engagement - definition and framing in documents

4.1. Strategies of citizens engagement in circular economy and its indicators in EU literature and documents

Sources: The study is based on literature. The purpose of the study was to analyse how the issue of public involvement is addressed in the literature and in reference documents produced by EU bodies. Indicators of public involvement and how they are framed were also part of the analysis.

Methods of implementation: descriptive desk research analysis of the literature with the production of a report [link to the report page](#)

Schedule: action implemented between December 2021 and March 2022

Summary:

The analysis leads to the conclusion that the processes and conditions of consumption influencing such attitudes of green consumerism / sustainable consumption / consumption oriented towards Circular Economy (CE) -related activities – are quite well identified, recognised and described.

In the research results, described on literature, regarding social engagement related to circular economy, various lists of indicators are quoted. Unfortunately without a detailed description of the calculation method; the main problem is that what in literature is called “social indicators” are in fact determinants of social involvement in CE or characteristics or forms of this involvement.

It should be mentioned, however, that appropriate indicators of social involvement in the CE (understood as quantifiable numerical measures characterising certain social behaviours as part of an action strategy for the CE) can be developed on the basis of these identified conditions and forms of involvement, and in relation to the measurement of the degree of

achievement of specific objectives, planned actions and/or to assessing social participation in CE projects.

It is therefore not a major theoretical and conceptual problem to develop indicators to measure the degree of public involvement in the above-mentioned CE initiatives. The fundamental problems with the CE social engagement indicators themselves, are twofold and concern:

- Establishment of baseline values, i.e. e.g. the appropriate lifetime of products, frequency of repairs, time during which products should be used, frequency of purchases of disposable products, proportion of second-hand products, etc.
- a system for monitoring the real consumption behaviour of households in the above categories, and not only a survey of declared preferences in this respect.

To sum up, a review of the literature on social engagement for the application of circular economy solutions leads to the conclusion that research conducted so far, has focused primarily on identifying and determining the scale of influence of various determinants (cultural, economic, institutional, legal) of household consumption behaviour in the CE sphere. The determination of the strength of the influence of various determinants was usually quantified in some way, but the methodology of these studies and the obtained results cannot be considered indicators of social engagement in favour of the CE in a strict sense.

Nevertheless, those conclusion may be the basis for the formulation of a recommendation to conceptualise such indicators, based on the knowledge accumulated to date on the determinants of consumption processes, as well as its impact on the environment (in the context of specific goods).

4.2. Citizens engagement definition

Sources: The study made on the basis of literature. Will be interactively modified in the course of implementation of the activities provided for in this plan.

Methods of implementation: descriptive analysis of *desk research* type literature and expert discussion.

Schedule: implemented in March – April 2022 (version 1); June – October 2022 (version 2).

In the course of further work, the wording of the definition might be updated (according to the identified problems, in particular with regard to the forms of citizen involvement and the possibility of supporting them).

Definition:

Citizens' engagement in the circular economy refers to the involvement of the public (households) in activities (processes) for the implementation of the solutions that make up the circular economy system (CES), otherwise known as the circular economy (CE) or closed-loop economy (CLE). This concept means, first of all, the involvement in real processes related to management (processes from the real sphere), undertaking specific **practices**. (Some examples are: 1) those that bring material effects consisting in the increase of the degree of circulation of natural resources in the socio-economic system and, consequently, in the reduction of the anthropogenic impact on the natural environment related to the generation and accumulation of various types of waste (mainly the post-consumption waste, - the waste accompanying consumption, mainly to the so-called municipal waste).

The practices of households in the field of CE may be initiated and supported by various types of activities (instruments) undertaken (applied) by public entities, non-governmental organizations, etc.. These **supporting activities** should also be analysed as part of the research on social involvement in CE.

Social involvement in a closed loop economy, in a broader sense, may also refer to regulatory processes related to management (processes from the regulatory sphere). an example is the designing of organisational solutions aimed at increasing the degree of natural resources circulation in the socio-economic system, and thus reducing the anthropogenic impact on the natural environment, mainly from generation and accumulation of various types of waste, mainly post-consumption waste, i.e. waste that accompanies consumption (thus mainly municipal waste).

We define the activities of citizens (households) for the circular economy as real (and not only declarative) involvement in the following **practices** and processes:

- **refusing** (e.g. not necessary consumption of goods; elimination of unnecessary / harmful consumption),
- **reducing** (consumption of goods in order to lower the physical flow of matter in economic processes),
- **reusing** (the multiplication of the use of material goods for their current purpose),
- **refurbishing** (renewal of material goods in order to restore the original functionality and extend the life time),
- **repairing** (fixing of broken or damage material goods),
- **repurposing** (finding new applications and functionalities for material objects already used up for their original purpose),
- **recycling** (processing material goods into new, **secondary raw material**), as well as activities not directly related to CE, but supporting such practices:
- **sharing** (using one item / material good together with other households in order to increase the intensity and efficiency of use),
- **leasing** (rental systems of material goods),
- **segregation** and **selective collection** in the local waste management system.

Analyzing (researching) **activities supporting** the involvement of citizens (households) in the above-mentioned practices for the benefit of circular economy will consist in assessing the effects of **initiatives** undertaken by public institutions, non-governmental organizations or other entities, such as:

- a) **activities increasing awareness and knowledge** of issues related to the circular economy (soft activities),
- b) **action modifying the behaviour of citizens** (households) in the sphere of managing material resources, in an **institutionalized manner**, i.e. as a result of the application of legal and administrative coercion, as well as through a system of incentives and / or negative incentives – respectively: forcing, stimulating or discouraging to specific activities (practices) (hard actions of a command-control nature, regulations and economic instruments);

- c) **activities involving citizens** in the process of **creating system and regulatory solutions** in the field of circular economy (activities such as: regulations by reaching an agreement and co-creating policies and participation in decision-making processes);
- d) **activities encouraging citizens** (households) to behave and practice consistent with the concept of circular economy, introduced by private entities on the basis of **self-regulation** (voluntary regulation).

Ad. (a) awareness-raising activities are targeted at citizens as audiences and include, inter alia:

- a) information activities,
- b) educational activities,
- c) promotional activities (e.g. targeting the creation of new social trends in the field of CE),
- d) advisory activities.

Awareness and knowledge-raising activities can be carried out by very different entities, i.e.:

- a) national (central), regional and local authorities,
- b) non-governmental / social organizations, social partners (?),
- c) private and public enterprises,
- d) educational and educational institutions..

Ad. b) actions modifying the behavior of citizens (households) in the field of managing material resources, in an institutionalized way, they include legal regulations and economic / financial solutions that can be introduced by local, regional and central authorities to persuade, force, encouraging or punish a citizen for application or non-compliance with specific practices in the field of circular economy, and which are of interest to public policy (public interest sphere). These activities include, for example:

- a) introducing an obligation to segregate and separate waste collection,
- b) introducing a system of fees (e.g. for products, recycling) and penalties, as well as subsidies by national / local government authorities,
- c) introducing an obligatory deposit system when using specific packaging by producers,

d) other.

Ad. c) activities involving the process of creating systemic solutions, including in particular regulatory ones, in accordance with the principle of co-management (governance by co-governance) – they include the involvement of citizens as participants and stakeholders in the processes related to the organization of the material resource management system itself (in particular waste management) on levels: strategic, operational and related to the creation of draft legislative solutions to support circular economy. These activities can be implemented on various scales: local / regional / national and may include, for example:

- a) participation of citizens in consultation processes and co-creation of various types of public documents (concepts, policies, strategies, plans, programs) describing the directions of activities relating directly or indirectly to the issues of circular economy,
- b) participation of citizens in legislative initiatives (e.g. legislative initiative),
- c) participation of citizens in advocacy and lobbying activities (including, for example, petitions to the authorities),
- d) activities undertaken by citizens within the so-called non-statutory planning,
- e) other.

Ad. d) activities encouraging citizens (households) to behave and practice consistent with the concept of circular economy, introduced by private entities (e.g. commercial establishments, service entities) on the basis of self-regulation (voluntary regulation). This includes activities such as:

- a) voluntary introduction of deposit systems, e.g. for the return of certain types of packaging,
- b) introducing free collection services for used tangible goods when purchasing a new one,
- c) others.

4.3. Comments on the social acceptance of the circular economy

Sources: The study is based on the literature.

Methods of implementation: descriptive analysis of desk research literature and expert discussion with the production of a report ([link to the report page](#))

Schedule: December 2021 -April 2022.

Summary:

Social acceptance of the CE is one of the manifestations (aspects) and at the same time a specific condition for social engagement in the CE. Social acceptance of the circular economy means public understanding and social acceptance of the need (necessity) for implementation of circular economy solutions, both on a micro (household) and macro (community) level.

5. Citizens engagement plan for Circular Systemic Solutions – CSS2 food&feed

5.1. Scope and areas of citizens (households) engagement under Circular Systemic Solutions – CSS2 food&feed

5.1.1. Identification of the expected citizen (household) involvement for a given CSS

As part of this section, an assessment will be made of the feasibility of applying circular economy activities at the household level, which, as a result of the previous analysis, included the following **practices**:

- refusing,
- reducing,
- reusing,
- refurbishing (renewal),
- repairing (fixing),
- repurposing,
- recycling (processing), as well as activities not directly related to CE, but supporting such practices:
 - sharing,
 - leasing (rental)
 - segregation and selective collection in the local waste management system.

The analysis will take into account CSS food&feed specific practices, including in particular refusing, reducing, repurposing and others beyond the analysed scheme, e.g.

The starting point for performing such an assessment is a technical report. The assessment is to demonstrate to what extent an action (practice) from the group is necessary for the introduction in the local/regional circular economy system of the designed technical solutions for CSS 2 Food& feed.

Table 1 Analysis/assessment chart of the feasibility of household practices for implementing solutions in each CSS

Practice name (practice categories)	CSS Food&feed
refusing	
reducing	
reusing	
refurbishing (renewal)	
repairing (fixing)	
repurposing	
recycling (processing)	
segregation and selective collection in the local waste management system	
sharing	
leasing (rental)	

other practices specific to CSS2	
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NOTE: the table is used to initially identify the link between a given practice type and the activities anticipated under a given CSS type, using the following designations:

- **practices needed** to implement CSS (PN),
- **practices to support** CSS implementation (PS),
- **general practices** - i.e., directly unrelated to the implementation of CSS (to increase citizens engagement in circular economy solutions in general (GP),
- **lack of practices** adequate for the activities envisioned in a given CSS (LP).

Source: own study.

Methods of implementation: surveys with the participation of leaders of individual CSS and WP activities and also descriptive analysis of the survey as well as expert discussion.

Schedule: November 2022 – January 2023.

5.1.2.Characteristics of the specifics of the expected household practices identified for CSS 2

For each category of practice identified for a given CSS, a subject (essential) description will then be made of the activities that households are expected to undertake. This description will provide a characterization of the expected households engagement in activities in a given CSS.

In the summary of the description, a breakdown of the activities can be made:

- indispensable – i.e., conditioning the ability to implement the technological activities envisaged in the project;

- supportive – i.e., enhancing the effectiveness of the implementation of technological activities envisaged in the project, but not necessary for its implementation;
- general – i.e., raising the general level of public awareness of the need to take action for the circular economy on the issues addressed in a given CSS.

Conducting the analysis indicated in Table 1 and then performing the above description will further allow us to determine whether there are any areas of common practice for each CSS, which can then be standardized at the regional/local implementation level (Table 2).

Table 2. Assessment of the feasibility of direct household practices for implementing solutions in each CSS – summary table

Practice name (practice categories)	CSS type / name			
	CSS 1	CSS 2	CSS 3	CSS 4
refusing				
reducing				
reusing				
refurbishing (renewal)				
repairing (fixing)				
repurposing				
recycling (processing)				
segregation and selective collection in the local waste management system				

sharing				
leasing (rental)				
other practices specific to CSS				

NOTE: the table is used to initially identify the link between the type of practice and the activities envisaged under the type of CSS, using the following designations:

- **practices needed** to implement CSS (PN),
- **practices to support** CSS implementation (PS),
- **general practices** – i.e., directly unrelated to the implementation of CSS (to increase citizens engagement in circular economy solutions in general (GP),
- **lack of practices** adequate for the activities envisioned in a given CSS (LP).

Source: own study.

Methods of implementation: Descriptive analysis of the survey, comparative analysis and expert discussion.

Schedule: February – April 2023.

5.2. Types of activities dedicated to supporting social involvement/ engagement in CSS 2 (analysis of conditions and selection of instruments)

5.2.1. Identification of the determinants of social involvement of citizens (households) and the possibility of undertaking practices for activities in a given CSS

The activity will identify the determinants that influence households to undertake the practices identified in 5.1.1 and 5.1.2 for CSS. The logic diagram for such identification is presented in Table 3. This analysis will be carried out separately for each CSS.

Table 3. Diagram for identifying / analyzing / assessing the determinants of the application of household practices for the implementation of solutions in the framework of CSS 2 “Food&feed”

Determinants of social commitment / citizens (households) engagement in CE (CSS)	Name of practice (practice categories)										
	refusing	reducing	reusing	refurbishing (renewal)	repairing (fixing)	repurposing	recycling (processing)	segregation and selective collection in the local waste management system	sharing	leasing (rental)	other practices specific to CSS2
Technology (increasing accessibility)											
Awareness and knowledge (improvement through education)											
Coercion (creation of legal and administrative solutions with an enforcement mechanism)											
Stimulus: stimulant / destimulant (creation of economic and											

financial solutions)											
Best practice (dissemination, popularization)											
Cultural pattern (creation and dissemination)											

NOTE: the table is used to identify the determinants of social engagement of households in undertaking practices for the implementation of activities/solutions envisioned in a given CSS. Identification using scale:

- very important / key condition (conditioning the effectiveness of CSS activities - essential),
- essential condition (supporting the effectiveness of CSS activities),
- conditionality generally supportive of public commitment to CE,
- no relationship or marginal importance of a given determinant for undertaking practices in a particular area (no or insignificant impact on the implementation of activities under a given CSS).



Source: own study.

Methods of implementation: Matrix analysis of conditions based on information / data received from local government partners (local communities & authorities, union of municipalities) participating in the project. Expert discussion using the Delphi method.

Schedule: the months of May – June 2023.

5.2.2. Analysis/ assessment of the importance of the various identified determinants of citizens' engagement of households in undertaking practices for activities in a given CSS

In this activity, a descriptive analysis (assessment) of the relevance of the various identified determinants that affect households' uptake of the practices identified in Section 5.1.1 and 5.1.2 for CSS will be made. The analysis will be used to develop a summary that identifies key determinants of the effectiveness of households' undertaking practices relevant to the implementation of CSS activities. Recognition of these conditions, and determinants will be necessary for the identification and, finally, programming (on a local / regional scale) of activities supporting households in their involvement in CSS2 and the selection of instruments for this purpose (Section 5.2.3).

Methods of implementation: Expert discussion. Descriptive analysis of the study.

Schedule: May – June 2023.

5.2.3. Identification of instruments (tools) to support household practices in their commitment to activities within framework of CSS 2 “Food&feed”

The activity will include the initial identification, review and mapping of instruments that can potentially influence households to undertake the practices for implementation of CSS 2 identified in Section 5.1.1 and 5.1.2. The starting point for the selection of instruments is the



analysis performed in Section 5.1.2. The logic diagram for such identification is presented in Table 3. This analysis will be performed separately for each CSS.



Table 4 . Flowchart for identifying / analyzing / evaluating instruments to support household practices for implementing solutions for each CSS (separately)

Instruments / tools to promote social engagement	Name of practice (practice categories)										
	refu sing	reducing	reusing	refurbishing (renewal)	repairing (fixing)	repurposing	recycling (processin g)	segregation and selective collection in the local waste managemen t system	sharing	leasing (rental)	other practices specific to CSS
Promotional activities/ initiatives											
Educational activities/ initiatives											
Information and consultancy activities/ initiatives											
Financial incentives (positive and negative)											
Legal and administrative regulations											
Co-creating solutions (consultations,											

workshops, forums, referenda)											
Self-regulation (voluntary regulation)											
Other (?)											

NOTE: the table is used to identify instruments to promote social engagement of households in undertaking practices for implementation of activities/solutions envisioned in a given

CSS. Identification using scale:

- very important / key instruments (conditioning the effectiveness of CSS activities - essential),
- essential instruments (to support the effectiveness of CSS activities),
- Instruments generally supporting social commitment to CE,
- no relationship or marginal importance of a given instrument for undertaking practices in a particular area (no or insignificant impact on the implementation of activities under a given CSS).

Source: own study.

Methods of implementation: Matrix analysis based on the literature review and previous work provided for in this plan. Expert discussion using the Delphi method.

Schedule: June – August 2023.

5.2.4. Description of recommended instruments (tools) to support household practices in their commitment to activities within the framework of CSS 2

The activity will carry out a descriptive conceptualization of the instruments that should be used at the level of the local/regional territorial system for supporting household practices (identified in Section 5.1.1 and 5.1.2), the undertaking of which will contribute to the implementation of the activities envisaged under the given CSS and increase community engagement in the CE in general. The starting point for the detailed characterization of the instruments is their preliminary overview made in Section 5.2.3. The description of the instruments should include their assignment to following subjects:

- municipal / community local governments,
- county local governments,
- regional local governments,
- non-governmental organizations (NGO's),
- scientific and research entities, academic institutions,
- private entrepreneurs,
- public entrepreneurs,
- households,
- others (?).

Methods of implementation: Expert discussion. Descriptive analysis on the basis of literature review and previously performed work provided for in this plan.

Schedule: months of August – September 2023.

5.3. WP-specific activities implemented under the framework of CSS 2

Within the measure of WP 4 - T.4.2. the substantive activities will be transferred to WP 7 due to:

- a) the duration of the implementation (under T.4.2. the duration of implementation was set incorrectly at 6 months)
- b) the specificity of the activities, the implementation of which will be carried out in the Lodz region, in particular in the partner communes, i.e. the commune of Parzęczew and the Bzura Intercommunal Union.

As part of the activities, the following examples might be developed and implemented:

- a) information and education campaigns at local and regional level to raise awareness on waste prevention, separate collection with a focus on food and kitchen waste to guarantee high quality bio-waste input and at the same time reduce the amount of bio-waste going to landfill.
- b) farmer training provided by the Lodz Agricultural Advisory Centre and NVMT to increase the capacity of innovative regional farmers to address the challenges of land abandonment due to reduced soil quality and to increase income opportunities through sustainable practices on marginal land, providing opportunities for diversification.
- c) development of a household circularity assessment tool - the tool is to operate as a mobile application. The tool could be combined with an incentive system, e.g. through local fees or taxes or in the form of a "local currency". Part of the work in WP 4, an analysis of good practice in developing tools to measure community engagement and local currency was developed. ([link to the report page](#))
- d) development of a model for a social enterprise operating in the area of food&feed creating jobs for people at risk of social exclusion.

5.4. Timetable of activities for citizens engagement in the implementation of CSS2

Below is an overview of prospective planned CSS2 activities related to citizens engagement in the form of a goal – implementation matrix.

Table 5 Activities planned for citizens’ engagement in the implementation of CSS2

Objective activities of	Planned activities	Lead time	Contractor/leader	Place of implementation
Identification of needs regarding the scope of social involvement of citizens (households) within a given CSS 2	[5.1.1] Identification of the expected citizen (household) involvement for a given CSS	November 2022 – January 2023	OPUS	All technical partners under CSS 2
	[5.1.2] Characteristics of the specifics of the expected household practices identified for CSS 4	February – April 2023	OPUS	All technical partners under CSS 2
Identification and analysis of conditions and selection of instruments to support the social involvement of citizens within the CSS 2	[5.2.1] Identification of the determinants of social involvement of citizens (households) and the possibility of undertaking practices for activities in a given CSS	May – June 2023	OPUS	Activities planned for use in the region of Lodz and the municipality of Parzeczew and on the territory of the Bzura Intercommunal Union
	[5.2.2] Analysis/ assessment of the importance of the various identified determinants of citizens engagement of households in undertaking practices for activities in a given CSS	May – June 2023	OPUS	
	[5.2.3] Identification of instruments (tools) to support household practices in their	June – August 2023	OPUS	

	commitment to activities within framework of CSS 2 food & feed			
	[5.2.4] Description of recommended instruments (tools) to support household practices in their commitment to activities within the framework of CSS 2	August – September 2023	OPUS	

The action plan for CSS 2 related to T 4.2 will be implemented within the activities of WP 7 where individual activities will be implemented in the form of community testing.

Table 6 Carried over actions

Objective of activities	Planned activities	Lead time	Contractor/leader	Place of implementation
Raising citizens' awareness	Trainings for farmers on developed best practices for the valorization of marginal lands for oil crops cultivation by focusing on: innovative agronomic practices, business models and incomes opportunities, logistics and contractual models.	December 2022 - June 2024	NVMT	Activities planned for use in the municipality of Parzeczew and on the territory of the Bzura Intercommunal Union
Increasing citizen involvement in the circular economy	Model and self-service tool for residents to apply the principles of the circular economy in everyday life.	December 2022 - March 2025	OPUS	Activities planned for use in the municipality of Parzeczew and on the territory of the Bzura Intercommunal Union
	The four-steps methodology addressing particularly	December 2022 - March 2025	Veltha	

	(1) Determination of User Indicators, (2) Community Identification, (3) Virtual & physical interaction design & (4) User Access & Participation (see Task 3.2).			
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Source: own compilation

The complementary catalog of activities which are going to be launched under WP 7 framework are presented in Table 7

Table 7 Catalog of complementary activities to be launched under WP 7 framework

Objective of activities	Planned activities	Lead time	Contractor/Leader	Implementation sites
Increase the knowledge of the region's residents concerning activities within the framework of CSS2	Outreach activities: a) information campaigns on CSS 2, e.g., through traditional information channels (local media, social media); b) preparation of informational materials for residents in print and electronic form on CSS2 solutions (e.g. posters, podcasts, educational videos); c) creation/ establishing of a dedicated fanpage on the local community social media platform regarding all CSS; d) participation in local cultural events that will present the assumptions of the circular economy.	January 2023 - March 2025	Veltha	Activities planned for use in the region of Lodz and the municipality of Parzeczew and on the territory of the Bzura Intercommunal Union
Increase the knowledge of the	Educational activities	January 2023 - March 2025	Veltha	Activities planned for use in the region of

<p>region's residents concerning activities within the framework of CSS 2</p>	<p>a) hybrid thematic seminars (online and onsite) b) training on the implementation of circular economy goals and design objectives - applicable to all CSS, c) educational activities for kindergartens, schools, including competitions for children in the area of CSS2</p>			<p>Lodz and the municipality of Parzęczew and on the territory of the Bzura Intercommunal Union</p>
<p>Increase engagement of residents in the activities within the framework of CSS 2</p>	<p>a) local micro-grant programs for residents to promote closed-loop economy solutions including those dedicated to CSS 2</p>	<p>June 2023-March 2025</p>	<p>OPUS /municipality of Parzęczew/ ZMB</p>	<p>Activities planned for use in the region of Lodz and the municipality of Parzęczew and on the territory of the Bzura Intercommunal Union</p>

Source: own compilation.

6. Social enterprise co-creation model (using integrated project method and/or CANVAS model) developed for CSS2

6.1. Analysis of examples of how social enterprises operate within the circular economy

As part of the activity, an analysis of examples of social entrepreneurship development in the CE area operating in the world and Poland was conducted. The report was developed with a particular focus on the areas of activity covered by the framework of CSS's, included in this project.

Methods of implementation: descriptive analysis of desk research type literature outline & review and expert discussion. ([Link to the report](#))

Schedule: implemented in August – September 2022.

6.2. Identification and analysis of conditions/opportunities for the development of a social enterprise using CSS2 solutions

The purpose behind this activity would be to identify and analyze the conditions/opportunities for the development of a social enterprise using the solutions within a given CSS. The starting point could be:

- a) technological analysis of the feasibility of using the solutions in the framework designed under CSS 2,

- b) technological analysis of the possibility of using plastic waste in solutions for the production of products such as public utilities (urban furniture),
- c) the analysis of market conditions could be done using the Business Model Canvas template, i.e. broken down into elements such as:
 - 1) customer segmentation,
 - 2) value proposition,
 - 3) distribution channels,
 - 4) customer relationships,
 - 5) revenue structure & streams,
 - 6) key resources,
 - 7) key activities,
 - 8) key partners,
 - 9) cost structure.

Methods of implementation: Expert discussions. Workshops. Descriptive analysis.

Schedule: November 2022 – January 2024.

6.3. Business plan for a social enterprise focusing on circular economy

For an example, a business plan for a social enterprise can be created. This would take into account local conditions for the area of the Parzeczew municipality and the Association, with the view of potentially creating jobs for people at risk of social exclusion.

Business plan schedule would presuppose:

- 1) company characteristics:
 - a) business object,
 - b) social and economic goals,
 - c) enterprise values,
 - d) social capital,
 - e) SWOT analysis of the company;

- 2) marketing plan:
 - a) product/service description,
 - b) market analysis,
 - c) promotion;
- 3) financial analysis:
 - a) revenue and cost analysis,
 - b) investment plan.

Methods of implementation: Expert discussions. Workshops. Descriptive analysis.

Schedule: February – December 2024.

6.4. Description of the social enterprise project using the solutions within the framework of given CSS

The activity will describe a project for the development of a social enterprise using CE solutions within a given CSS. The starting point will be the analysis of the conditions for the development of such an enterprise made in general in section 6.2 and 6.3

The description scheme is presented in the Table 8

Table 8 . Scheme / Template for description / characteristics of a social enterprise project(so-called "fiche") taking into account the spatial dimension of the planned activities

Project title	
Description of the project (justification of the need for the project, characteristics of the project)	
Linking the project to the goal tree (of citizens engagement in CSS)	
Components of the project	

The spatial dimension of the project	
Expected results	
Project stakeholders	
Stages of project implementation	
Project indicator (output and result)	
Anticipated budget and source of funding for the project	

Source – own elaboration based on: *Integrated Strategy for the Development of the Warsaw-Lodz Functional Area until 2030 (draft)*, T. Markowski [ed.], (publication co-financed by the EU from the ESF funds under the OPKL, Priority V, Measure 5.2, Sub-measure 5.2.2), published by the University of Lodz, Faculty of Management, Department of City and Region Management, Lodz 2015.

Methods of implementation: Expert discussion. Workshop. Descriptive analysis.

Schedule: January -March 2025

6.5. Timeline for the development of the social enterprise model for CSS2

Table 9 . Timeline for the development of the social enterprise model for CSS2

Objective of activities	Planned activities	Lead time	Contractor/Leader	Implementation sites
Raise awareness of the involvement of social entrepreneurship in the circular economy	Analysis of examples of social enterprises operating in a circular economy	August-September 2022	OPUS	Lodzkie region
Identification and analysis of conditions/opportunities for the	1) technological feasibility study on the solutions designed under CSS 2	November 2022 - January 2024	OPUS	Lodzkie region, Parzęczew, ZMB

development of a social enterprise using CSS 2 solutions	<p>2)technological feasibility analysis of using food&feed waste in local production solutions, e.g. compost</p> <p>3)Analysis of market conditions will be carried out using the Business Model Canvas template,</p>			
Planning the launch of the pilot social enterprise	Development of a business plan for a social enterprise	February-December 2024	OPUS	Parzęczew
	Social enterprise pilot start-up	January - March 2025	OPUS	Parzęczew

