

Unlocking the potential of wood pyrolysis anhydrosugars: new knowledge and value-added products (SugarPot)

Project No. 1.1.1.9./LZP/1/24/005

Communication, Dissemination and Exploitation Plan

Deliverable 4.1.

Introduction

The **SugarPot** research project is carried out under the PostDoc Latvia programme, funded by the European Regional Development Fund (85%), Latvian Council of Science (10%), and the Latvian State Institute of Wood Chemistry (5%), with the total budget of 184140 eur. The duration of the project is 36 months, starting from 01.07.2025. The research project is carried out at the Latvian State Institute of Wood Chemistry (LSIWC), with the support of several international partners.

The aim of the **SugarPot** project is to elucidate the various anhydrosugar formation mechanisms during pyrolysis and to optimise the lignocellulosic biomass pre-treatment and pyrolysis technology for a high yield of recoverable platform chemicals. The specific scientific objectives of the project are related to the thermochemical decomposition of cellulose and the equilibrium between monosaccharide derivatives and their isomers as pyrolysis products under different pre-treatment conditions, as well as the extraction and purification of the obtained products. Multidisciplinarity of the project lies within the combination of scientific disciplines – analytical chemistry, organic chemistry, chemical engineering, material science. Connection with the industry is an objective of the project proposal, both from the point of view of the feedstocks (forestry, and also possibly agricultural wastes), and the end-users of the products in the chemical industry.

Effective communication, dissemination, and exploitation (CDE) is important for the project to reach maximum impact. The CDE plan underlines the activities of the **SugarPot** project's work package 4 "Management and Communication & Dissemination". The goal of the CDE Plan is to communicate and share the results of the project among various stakeholders and target groups.

Objectives of the CDE Plan

The CDE Plan of the **SugarPot** project has been devised with the aim to outline a systematic flow of communication and dissemination to share the project's outcomes, as well as to define effective exploitation of the results. The CDE Plan may be adjusted and revised throughout the project.

The objectives of the CDE Plan are to:

- Increase visibility of the research carried out at LSIWC
- Advance the knowledge related to lignocellulose pyrolysis in the scientific community
- Promote the idea of biomass-based chemicals in the neighbouring scientific disciplines (organic synthesis, catalysis), as well as the respective industries
- Raise awareness in the general public and among policy makers about the urgent need to transition to a bioeconomy
- Promote STEAM education and a career in science among the youth

This Plan details CDE activities by describing the method of communication, the intended audience, and the timing.

Target Audiences and Stakeholder Mapping

The table below identifies various target groups, their needs, and the strategy to reach them via different channels.

Target group	Goal	Tools/ Channels
Scientific community in the same field (biorefineries)	Share research results, engage in discussions to advance the field	Peer-reviewed scientific journals, conferences, webinars
Scientific community in other fields (cross-disciplinary)	Promote the use of biomass-based products in organic synthesis, catalysts etc., and stimulate interdisciplinary collaboration	Conferences, webinars, social media posts (LinkedIn) #SugarPot
Industry	Technology transfer, basis for contract research after the SugarPot project lifetime	Informative leaflets about the relevance of the project results, e-mails and direct invitations to webinars/ info days at LSIWC
General public	Raise awareness of renewable materials and sustainability	In-person events (Researchers' Night), social media posts (Facebook blog)
Youth	Promote interest in science as a career	Visits to schools, in-person events (Researchers' Night)

Timeline of the CDE activities

The table below outlines the planned schedule of the CDE activities.

Indicative time	Activity
Beginning of the project	Creating an on-line presence of the SugarPot project (web page, social media announcements)
Beginning of the project	On-site informative plaque about the implementation of the project at LSIWC
Month <12	Presenting the project results at the Pyro2026 conference
Month <18	Peer-reviewed publication in <i>Energy & Fuels</i>
Month <24	Presenting the project results at the HPLC2027 conference
Month <30	Presenting the project results at the BSE2027 conference
Month <32	Peer-reviewed publication in <i>Journal of Liquid Chromatography and Related Techniques</i>
Month <36	Peer-reviewed publication in <i>Biomass Conversion and Biorefinery</i>
Throughout the project	Social media posts (LinkedIn, Facebook) and updates on the project web page about the project activities and progress
Throughout the project	Guest lectures to children and students according the the school/academic schedule
End of the project	Direct informative materials (leaflets) and consultations with stakeholders of the industry

Key Performance Indicators (KPIs)

- Number of publications in peer-reviewed journals - 3
- Number of presentations at scientific conferences - 3
- Number of project updates on the project web page - 6
- Social media engagement channels - 2
- Number of social media posts - 120
- Impressions of social media posts - up to 1000 per post
- Events of on-site engagement with youth at LSIWC - 3
- Visits to schools, universities - 3
- Informative materials (leaflet) about the project results - 1
- Webinar - 1

Risk Management

Versatility of the planned activities ensures that a broad audience will be reached to inform the public about the objectives, activities, and results of the **SugarPot** project. However, several potential risks need to be considered and a risk mitigation strategy needs to be in place. Possible risks and their respective mitigation activities are:

- *Low engagement of public* can be improved by adjusting the style and format of publicity materials, e.g., including more attractive visuals in social media posts
- *Lack of industry interest* can be tackled by using the existing network of industrial partners of LSIWC
- *Delayed publication of scientific papers* can be managed by optimal selection of journals

The resources and competences of the LSIWC communication team and administration are available to support the implementation of the project, including consultations about the optimal means of communication and publications.

Final remarks

A strategic CDE plan supports the successful implementation of the **SugarPot** project's Work Package 4 "Management and Communication & Dissemination". The communication and dissemination materials will be marked by the PostDoc Latvia logo ensemble, as well as the project number (in scientific publications), and hashtag #SugarPot (social media). The plan outlines activities within a reasonable timeline but may be updated during the project lifetime. The communication activities should not overwhelm the project and the time allocated to CDE activities should not exceed 10% of the workload. The KPIs shall be evaluated at interim and at the end of the project.