

I am CELISE

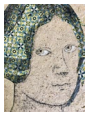
Sustainable production of
Cellulose-based products and
additives to be used in SMEs
and rural areas

Deliverable D3.1. Report of
training program



This project has received funding from the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No 101007733





CELISE: Sustainable production of Cellulose-based products and additives to be used in SMEs and rural areas

Deliverable D3.1. Report of training program

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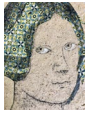
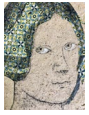


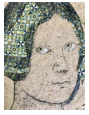
Table 1. Document information

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List of authors			
Alberto Coz	UC	alberto.coz@unican.es	
María Herrero	UC	maria.herrero@unican.es	
Tamara Llano	UC	tamara.llano@unican.es	
Maria K. Kochaniec	WUT	maria.kochaniec@pw.edu.pl	
R. Fernando Colmenares	UCC	ramon.colmenaresq@campusucc.edu.co	
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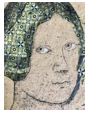
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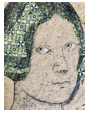
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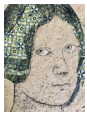
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4. LIST OF ABBREVIATIONS

Table 2. List of abbreviations

Acronym	Definition
D	Deliverable
DoA	Description of Action (Annex I of the GA)
EC	European Commission
EU	European Union
GA	Grant Agreement
H2020	EU Research and Innovation programme Horizon 2020
KTU	Knowledge Transfer Unit
MC	Management Committee
MSCA	Marie Skłodowska-Curie Actions
PM	Person Month
RISE	Research and Innovation Staff Exchange
SC	Steering Committee
WP	Work package



5. INTRODUCTION

5.1. General purpose of the document

This document is a deliverable (D) issued in the framework of the CELISE project under the MSCA-RISE Grant Agreement (GA) number 101007733 of the Horizon 2020 (H2020) research and innovation programme of the European Union (EU). It aims to provide an overview of the training activities performed by the CELISE consortium in the first twelve months of the execution of the project, as well as the list of the research and transferable skills acquired by the seconded staff members and the planning for the rest of life of the project.

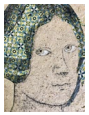
The document is based on the rules established in the D4.1. Web site, dissemination, exploitation, outreach and transfer of knowledge plans, specifically section 11th "TRANSFER OF KNOWLEDGE PLAN" (pages 31-36).

5.2. Role and contribution from partners

The D3.1 is part of WP3 activities (Task 3.1: Supervision of the Training Program), and UC leads it. Therefore, UC is responsible for the supervision of the training activities in the project with the support of all consortium members. In particular, the Coordinator appointed Dr. Tamara Llano as the person in charge of the WP3 with the help of Maria Herrero from the International and European Project Office of the UC (<https://web.unican.es/unidades/oficina-proyectos-europeos>). Dr. Llano was validated during the CELISE kick-off Meeting. She, under the supervision of the Network Coordinator, kept track of all training activities of the project, compiled internal reports with the Training Programme implemented so far, and informed consortium members about its status. The Knowledge of Transfer Unit (KTU), the Steering Committee (SC) and the Management Committee (MC) will assess the programme according to the procedure described in D4.1.

Because training is a transversal activity of the project directly linked to all WPs, the relevant WP Leaders and task contributors will be required to participate in the programme through various means: organisation of seminars and specialised courses, participation in workshops and conferences, hosting secondments, mentoring, visits to external stakeholders, and attendance to relevant events, tutorials or courses. Moreover, each Secondee together with the supervisors at Host and at Sender will fill in and send to the Network Coordinator and WP Leaders the Secondment Plan Proposal before the start of the secondment, and the Secondment Final Report within three weeks after the exchange ended. Such files show a brief overview of the tasks carried out during the secondments and the training objectives achieved during the period of the mobility. In Annex 1 both templates (Secondment Plan Proposal and Secondment Final Report) are shown.

Thus, all beneficiaries and partner organisations in CELISE are involved in reporting, reviewing, and monitoring of the training activities and Training Programme of the project. In particular, during the first twelve months of the project and for D3.1 there have been reported 5 executed secondments for a total of 8.84 Person Months (PM).



6. TRAINING THROUGH IMPLEMENTED SECONDMENTS

In the MSCA-RISE funded project CELISE, the executed secondments of the research and innovation staff at participating organisations are the main tool of the Training Programme (see D4.1 and the DoA). This is due to the fact that all these research stays are used to strength the collaboration between the sectors and different cultures, learn all the infrastructures available in the network as well as the methodologies used in each participating organisation, define common tools and train staff through seminars and tutorials at host and sending institutions.

Moreover, every secondment involves mentoring, debriefing and documentation, and led to a seminar or other activities at the institution of origin. Researchers who have returned from a stay to their institution or company will give a talk, seminar, meeting or other activities in which they must explain all the knowledge acquired in that period, which increases the research-related and transferable knowledge of the fellows. In addition, during the secondments, new contacts with foreign stakeholders (mainly companies related to biomass, research institutes and other universities) are established. During such meetings, the project is presented as well as the experience, background and current work of the Secondees, which improves the career perspectives of the participating fellows.

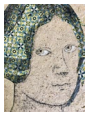
From October 2021 to September 2022, cf. the Researcher Declarations presented so far, and due to COVID situation and the companies that have left the project, there have been reported 8.84 PM (5 secondments by 3 ERs and 2 ESRs), which represent a total of 6.55% of the foreseen secondments of the project. A new amendment was written in order to fix all of the secondments for next years. The amendment adds more institutions to the project, giving more opportunities of collaboration and knowledge exchange. The amendment has been recently approved by the European Commission (date of approval: 24/01/2023). After compiling the Secondment Plan Final Reports of all these secondments, we present a summary of the skills acquired by the CELISE Secondees next.

6.1. Research skills and techniques acquired

Table 3 summarises for each Secondee such research skills and technical expertise acquired during the CELISE secondments.

Table 3. Summary of the secondments and research skills and techniques acquired during the first twelve months of the project.

Secondee	Sender	Host	WP	PM	Research skills and techniques acquired
Oskars	LS-IWC	UCC	1	2.07	<ul style="list-style-type: none"> - Improvement of skills in preparing academic papers in English and personal presentation skills. - Introduction to growth and production of cocoa at Agrosavia (Cacao research centre, Santander county). - To choose the best raw materials for production of cellulose materials based on cocoa production waste (cocoa pod husk, mucilage and bean shell, cocoa tree pruning) available in rural and vulnerable areas in relation to their characterisation and opportunities of business and considering the availability of the raw materials. - To give recommendations about the best characterisation methods in lignocellulosic biomass for obtaining cellulose based products. - Learning techniques and methods about biomass residues.



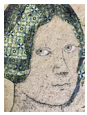
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Seconded	Sender	Host	WP	PM	Research skills and techniques acquired
Carlos	UNACH	UC	1	1.47	<ul style="list-style-type: none"> - Training on multi-criteria and optimisation analysis - Improvement of skills in preparing academic papers in English and personal presentation skills (due to the seminars in both English and Spanish). - Technical expertise in pre-treatment of lignocellulosic biomass - Technical expertise in chemical reactors for biomass - Analysis about the main fractions in lignocellulosic biomass. - Mathematical tools for studying different pre-treatments.
R. Fernando Colmenares-Quintero	UCC	UC	1	1.2	<ul style="list-style-type: none"> - To study energy demand and biomass energy production possibilities in rural areas. - Contribution to the deliverable D1.3. - Training on multi-criteria and optimisation analysis - In the framework of the International Fair Trade Day, Prof. Dr. Fernando Colmenares and Dr. Alberto Coz attended the talk and coffee and cocoa tasting organised by the University of Cantabria with the Primos de Origen project. - Improvement of skills in preparing academic papers in English and personal presentation skills (due to the seminars in both English and Spanish).
Juliana	UCC	UC	2	2.23	<ul style="list-style-type: none"> - Training on multi-criteria and optimisation analysis - Improvement of skills in preparing academic papers in English and personal presentation skills (due to the seminars in both English and Spanish). - Training course: Inclusive cultural spaces. In this case, this methodology can be applied to task 3.3. - Community characterisation towards empathy map (business models). - To contribute in the development of best business models in the rural and vulnerable areas taking into account the results in rural and vulnerable communities' worldview. - In this case, the contribution was by the study of the producers and business models in rural areas, considering coffee and cocoa products and residues.
Alberto	UC	FICH-UNL	1	1.87	<ul style="list-style-type: none"> - Study of the production of bioproducts by different fermentation and waste materials using multi-criteria analysis. - Learning techniques about the fermentation steps and fermenters for lignocellulosic materials. - Learning techniques about other pre-treatment steps for lignocellulosic materials. - Learning other techniques about mathematical modelling for lignocellulosic processing. - Improvement of skills in preparing academic papers in English and personal presentation skills (Conference proceeding at Crete, Greece).

6.2. Transferable skills

The execution of CELISE secondments meant, especially for the seconded ESRs, acquiring or/and improving an important set of transferable skills that include research management (e.g., deadlines and delivery, financial planning, funding applications, resource management, etc.), academic writing (e.g., preparing papers, books and tutorials), and communication skills (e.g.,



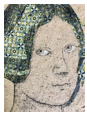
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poster/seminar presentations, outreach activities, promote public understanding of one's own field, etc.). These are detailed in Table 4.

Table 4. Summary of the transferable skills during the first twelve months of the project.

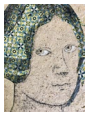
Secondee	Sender	Host	WP	PM	Transferable skills
Oskars	LS-IWC	UCC	1	2.07	<ul style="list-style-type: none"> - Manuscript for 1 peer-review open access paper about characterisation of cacao tree wood and its possibility of using for cellulose and/or nanocellulose materials - Conference presentation "Characterization of cocoa (Theobroma cacao L.) woody waste as considerations of resources for cellulose-based material" - Discussion with researchers Oscar Felipe Arbelaez Perez (UCC, University of Antioquia) about lignocellulose material using. - Discussion with Paola Acevedo and training about LCA (Aspen+) using in UCC. <p>REINTEGRATION MECHANISM:</p> <ul style="list-style-type: none"> - Research work in his institution and the collaboration with a paper. In addition, some seminars in LS-IWC about research experience in UCC were made. - Meeting with administration and college students of research seedbed BEPMA – Biocombustibles of La institución educativa INEM Custodio García Rovira in Bucaramanga.
Carlos	UNACH	UC	1	1.47	<ul style="list-style-type: none"> - 1 peer-review paper. "Potential of biogas production at post-conflict rural areas in Colombia using coffee residues" is finishing. To be submitted to Energies (MDPI) journal. - On arrival at the University of Cantabria, a meeting was held with Catalin Tirnauca, Alberto Coz, Tamara Llano and Carlos Burgos, to prepare work agendas, management of the work packages to which each of the participants of this meeting belong. - Participation in the online BERSTIC (Biorefineries and Renewable Energy supported by ICT) Conference. - Working sessions to finalise details of the doctoral thesis tutoring of Carlos Burgos from UNACH and Juliana Benavides from UCC. - Taking advantage of the convergence of doctoral students Carlos Burgos, Juliana Benavides, Prof Dr. Fernando Colmenares-Quintero and with Dr. Tamara Llano Astuy and Dr. Alberto Coz as hosts from the University of Cantabria, they met at the Identity Lab to present CELISE to the wider community in Santander city, Spain. - Assistance in the co-supervise by proof-reading a MSc thesis in biomass at the host department. The thesis was presented successfully by Karol Laguna. <p>REINTEGRATION MECHANISM:</p> <ul style="list-style-type: none"> - Research work in his institution, collaboration with his PhD thesis, and the publication of one paper, with the supervision of Alberto Coz (UC) and Fernando Colmenares (UCC). In addition, some meetings in UNACH about research experience in UC were made.



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Secondee	Sender	Host	WP	PM	Transferable skills
R. Fernando Colmenares-Quintero	UCC	UC	1	1.2	<ul style="list-style-type: none"> - 2 peer-review papers. - On arrival at the University of Cantabria, a meeting was held with Catalin Tirnauca, Alberto Coz, Tamara Llano and Carlos Burgos, to prepare work agendas, management of the work packages to which each of the participants of this meeting belong. - Working sessions to finalise details of the doctoral thesis tutoring of Carlos Burgos from UNACH and Juliana Benavides from UCC. - A meeting was held with the PhD student, Juliana Benavides, where her work plan was discussed during the mobility and her contributions to the project are mainly based on the support of the characterisation of rural and indigenous communities towards the design of technologies for the conversion of biomass to bioproducts. It is also highlighted that her work plan contributes to interdisciplinarity and training in diversity between areas of knowledge such as engineering and psychology from different perspectives. - Taking advantage of the convergence of doctoral students Carlos Burgos, Juliana Benavides, Prof Dr. Fernando Colmenares-Quintero and with Dr. Tamara Llano Astuy and Dr. Alberto Coz as hosts from the University of Cantabria, they met at the Identity Lab to present CELISE to the wider community in Santander city, Spain. - Meeting with people from the Institute of Physical Chemistry, the Warsaw University of Technology, Łukasiewicz, and the SGGW members and collaborators of Celise Project; there were discussed the tasks carried out during the stay of Prof Dr. Colmenares at the University of Cantabria and the contributions to the WP1 and WP2 and the articulation with the partners in Poland. <p>REINTEGRATION MECHANISM:</p> <ul style="list-style-type: none"> - Research work and meetings and skills development. In addition, some return to role and meetings and seminars in UCC were made.
Juliana	UCC	UC	2	2.23	<ul style="list-style-type: none"> - 1 peer-review paper about Business models in rural and vulnerable areas from the circular economy: a mapping review. - Working sessions to finalise details of the doctoral thesis tutoring of Carlos Burgos from UNACH and Juliana Benavides from UCC. - A meeting was held with the PhD student, Juliana Benavides, where her work plan was discussed during the mobility and her contributions to the project are mainly based on the support of the characterisation of rural and indigenous communities towards the design of technologies for the conversion of biomass to bioproducts. It is also highlighted that her work plan contributes to interdisciplinarity and training in diversity between areas of knowledge such as engineering and psychology from different perspectives. - Taking advantage of the convergence of doctoral students Carlos Burgos, Juliana Benavides, Prof Dr. Fernando Colmenares-Quintero and with Dr. Tamara Llano Astuy and Dr. Alberto Coz as hosts from the University of Cantabria, they met at the Identity Lab to present CELISE to the wider community in Santander city, Spain. - Working session with Karol Laguna to finalise details of her master thesis. thesis related to the use of Multi-Criteria Analysis in rural areas in Colombia to decide the best biorefinery processes to improve the gender equity in these areas. - Participatory in film forum with professionals from diverse disciplines with Professor Adelina Calvo from Faculty of Education - Participation in the internship of students of the education programme at the Jesús Cancio College con professor Adelina Calvo. - Education Programme research group meeting. The central theme was experiences of global citizenship. Good practices of Gender and Sustainability approach. With coordination of Professor Adelina Calvo. <p>REINTEGRATION MECHANISM:</p> <ul style="list-style-type: none"> - Research work, meetings and skills development, and the collaboration with her PhD thesis and papers. In addition, some return to role and meetings in UCC were made.



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Secondee	Sender	Host	WP	PM	Transferable skills
Alberto	UC	FICH-UNL	1	1.87	<ul style="list-style-type: none"> - 1 publication at a Conference paper SustEng 2022 (Oral Presentation): Importance of the use of Multi-Criteria Analysis tools to make decisions in biorefinery. - Skills about rural waste materials in Argentina, Brazil, and Uruguay - Improvement of communication skills in relation to adapt the message to different sectors and stakeholders - Workshop of 6 hours about how to communicate science to FICH-UNL group. - Talk about how to communicate science during the postgraduate course (1:30 hour). - Talk about environmental problems in rural areas and the importance of the pH (2 hours). - Invited keynote "I am CELISE, an International Project to help SMEs and rural areas within the bioeconomy". III Congreso Internacional de Biorrefinerías y Energías Renovables Soportadas en TIC – BERSTIC (Biorefineries and Renewable Energy supported by ICT). <p>REINTEGRATION MECHANISM:</p> <ul style="list-style-type: none"> - Research work. A new project was applied in his University related to some skills developed at UNL. In addition, some conferences in collaboration of both institutions and the return to role were done.

Apart from the secondments, the following activities are related to the transferable skills:

- T. Llano, C. Arce, N. Siñeriz, A. Coz (UC) C. Burgos (UNACH), R. F. Colmenares (UCC): Conference presentation "A novel way to extract cellulose from coffee silverskin residues using Deep eutectic solvents". III Congreso Internacional de Biorrefinerías y Energías Renovables Soportadas en TIC – BERSTIC (Biorefineries and Renewable Energy supported by ICT).
- Laura Andze (LS-IWC): Conference presentation at the International Conference for Young Scientists on Biorefinery technologies and Products (BTechPro).
- Alberto Coz and Tamara Llano (UC): presentation of the CELISE project at a round table in the CONAMA Conference, Madrid, Spain.
- Josefa Fernández-Ferreras and Tamara Llano (UC), Maria K. Kochaniec (WUT), and Alberto Coz (UC). Slow pyrolysis of specialty coffee residues towards the circular economy in rural areas. Paper accepted by energies Journal (MDPI).
- Maria K. Kochaniec (WUT) did an introduction about CELISE project during her speech at Reims 1-2 February 2023 (LignoCOST Action <https://lignocost.eu/>).

6.3. Employability and career progression

The secondments allowed the consortium to establish close links with other projects and external stakeholders ensuring to avoid overlapping and finding synergies in the field of biomass processing. Table 5 summarises the visits performed by CELISE fellows to external stakeholders during their secondments. During these visits, the Secondees not only improved their networking and communication skills by presenting CELISE project and their background and research interests but also as a way to improve career progression, develop employability, and awareness of what potential employers from industry are looking for when considering CV applications of researchers.

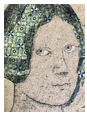


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Table 5. Summary of employability and career progression of the secondments during the first twelve months of the project.

Secondee	Sender	Host	WP	PM	Employability and career progression
Oskars	LS-IWC	UCC	1	2.07	<ul style="list-style-type: none"> - Meeting with the UCC biorefinery research group. Visit of UCC labs in Medellin, Bucaramanga and Bogota and partners labs (University of La Sabana, Chia, Bogota; Universidad Santo Tomas, Bogota; Francisco José de Caldas Universidad Distrital, Bogota) in Colombia. - Meetings with researchers and representatives of: UCC; EPM-utility company (floating solar structure pilot in a dam, waste management); MOVA Centro de Innovación del Maestro; Agrosavia (Cacao research centre); S-Innova C-Emprende, Bucaramanga; Francisco José de Caldas District University, Bogota; University of La Sabana in Chia, Bogota; Ministry of Science of Colombia (Head of International Relations Laura C. Bohorquez Toro, MinCiencias); IPSE (El Instituto de Planificación y Promoción de Soluciones Energéticas para las Zonas No Interconectadas); with local, regional/national government for future projects. - Agreement of cooperation between LSIWC and Universidad Cooperativa de Colombia, Colombia in relation to international scientific and technological cooperation that allow the joint realisation of projects in areas of common interest (in progress). - Agreement of cooperation between LSIWC and Francisco José de Caldas District University (in progress). - Discussion with UCC staff and partners about further research collaboration for a new project application in the area waste plant biomass utilisation (probably, for MinCiencias funding calls and/or Horizon Europe or other). - Oskars Bikovens was introduced with Colombian local rural problems (including cocoa production and its social impact, environmental problems, etc.). It opens mind boards in a way we are looking on research abilities and its impact on local society. Obtained experience opens new possibility for project proposal and in case of successful project application, it could create potentially new employability.
Carlos	UNACH	UC	1	1.47	<ul style="list-style-type: none"> - Visit the San Román Wastewater Treatment Plant (EDAR) with members of the research group GER and a representative of the company Calcat. - Visit to the facilities of Café Dromedario, an association of coffee brands from Colombia, Honduras, Mexico, among others, with whom it is hoped that they will be collaborators of CELISE and allow it to use the waste once the cup of coffee is produced (so-called coffee wells). - Meetings with UNACH authorities to identify funding for research projects.



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Secondee	Sender	Host	WP	PM	Employability and career progression
R. Fernando Colmenares-Quintero	UCC	UC	1	1.2	<ul style="list-style-type: none"> - Visit to the Institute of Environmental Hydraulics of the University of Cantabria. - Visit the San Román Wastewater Treatment Plant (EDAR) with members of the research group GER and a representative of the company Calcat. - Visit and meeting with people from the company Bondalti in order to explore opportunities for collaboration and cooperation between industry and academia. - Visit to the facilities of Café Dromedario, an association of coffee brands from Colombia, Honduras, Mexico, among others, with whom it is hoped that they will be collaborators of CELISE and allow it to use the waste once the cup of coffee is produced (so-called coffee wells). - Meetings with Vice-Rector for Campus, Sustainability and Digital Transformation of the UC, with the Vice-rectorate for Internationalisation and Global Engagement, and the International Relations Office of the UC, and with the Coordinator of the Doctoral Programme in Engineering at the UC.
Juliana	UCC	UC	2	2.23	<ul style="list-style-type: none"> - Visit and workshop in Pesquera about the use of cellulose materials to produce ancient paper and other artisan products in a very small company at rural area in Cantabria. - Meeting with the Vice-rectorate for Internationalisation and Global Engagement, and the International Relations Office of the UC
Alberto	UC	FICH-UNL	1	1.87	<ul style="list-style-type: none"> - Meeting with the head of the FICH Faculty. - Meeting with the rector and other authorities of UNL and FICH and looking for more cooperations. - Different visits to other laboratories at the UNL. - Meeting with the FICH-UNL about the analysis of individual compounds by HPLC. - Visit to the laboratories of LATU, Montevideo, Uruguay. - International cooperation with people from Brazil and Uruguay. In both cases with the post-graduate course. In addition, a visit to Uruguay for collaborating and showing the CELISE project - Visit to a farm-school in relation to rural areas - Visit to a small enterprise of craft beer. - Visiting a big beer factory, <p>During all visits and meeting, the establishment of working routes and practical work for future collaborations were done.</p>

Apart from the secondments, the following activities has been carried out:

- Online meetings among AUTH, IChF and UCC and joint work planning on biomass and lignin valorisation, utilising also waste cocoa biomass from Colombia.

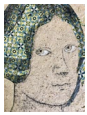


7. TRAINING THROUGH SEMINARS AND TUTORIALS

In this section we detail all the seminars and tutorials organised by the consortium. These events are one of the pillars of the CELISE Training Program as they allow the Secondees to improve presentation and communication skills, and transfer of knowledge. Table 6 summarises all seminars, courses and tutorials.

Table 6. Summary of the seminars, courses and tutorials during the first twelve months of the project.

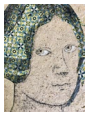
Secondee	Sender	Host	WP	PM	Seminars, courses and tutorials
Oskars	LS-IWC	UCC	1	2.07	<ul style="list-style-type: none"> - Dr. Kim Stansfield workshop "Lessons in Engaging Industry with Academia for Social Impact – A UK Perspective" LinkedIn: https://www.linkedin.com/posts/bersticucc_engineeringx-activity-6905563227758174208-60P-?utm_source=linkedin_share&utm_medium=member_desktop_web - Seminars in Colombia for postgraduate engineering students and researchers in UCC (Medellin, Bucaramanga and Bogota campuses) and partners "Wood Chemistry & Technology Overview" and "Wood Chemistry & Technology Research at LSIWC". LinkedIn: https://www.linkedin.com/posts/bersticucc_prospectiva-general-de-la-qu%C3%ADmica-y-la-tecnolog%C3%ADa-activity-6902346636673323009-KULZ?utm_source=linkedin_share&utm_medium=member_desktop_web LinkedIn: https://www.linkedin.com/posts/bersticucc_hoy-se-realiz%C3%B3-el-seminario-de-investigaci%C3%B3n-activity-6902373635802443776-nnb?utm_source=linkedin_share&utm_medium=member_desktop_web LinkedIn: https://www.linkedin.com/posts/bersticucc_proyectocelise-celise-marieskagokodowskacurieactions-activity-6909597734316433408-cZkb?utm_source=linkedin_share&utm_medium=member_desktop_web - Seminars in Latvian State Institute of Wood Chemistry for researchers about research experience in UCC and partners and possible collaboration. - Seminars for students of University of Latvia Faculty of Chemistry about "Wood Chemistry & Technology Overview in case of Colombia".
Carlos	UNACH	UC	1	1.47	<ul style="list-style-type: none"> - Participation in the Seminar "Waste, vulnerable and indigenous communities and business models for energy conversion in Latin America". Facebook: https://www.facebook.com/BERSTICUCC/posts/1742953029400878 LinkedIn: https://www.linkedin.com/feed/update/urn:li:activity:6934520018323861505 Twitter: https://twitter.com/BersticUCC/status/1528764671662215168 - Participatory talk "Waste as a resource to improve social and environmental sustainability in rural and vulnerable areas". Facebook: https://www.facebook.com/BERSTICUCC/posts/1743836132645901 LinkedIn: https://www.linkedin.com/feed/update/urn:li:activity:6934950141116235776
R. Fernando Colmenares-Quintero	UCC	UC	1	1.2	<ul style="list-style-type: none"> - Participation in the Seminar "Waste, vulnerable and indigenous communities and business models for energy conversion in Latin America". Facebook: https://www.facebook.com/BERSTICUCC/posts/1742953029400878 LinkedIn: https://www.linkedin.com/feed/update/urn:li:activity:6934520018323861505 Twitter: https://twitter.com/BersticUCC/status/1528764671662215168 - Participatory talk "Waste as a resource to improve social and environmental sustainability in rural and vulnerable areas". Facebook: https://www.facebook.com/BERSTICUCC/posts/1743836132645901 LinkedIn: https://www.linkedin.com/feed/update/urn:li:activity:6934950141116235776



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Secondee	Sender	Host	WP	PM	Seminars, courses and tutorials
Juliana	UCC	UC	2	2.23	<p>- Participation in the Seminar "Waste, vulnerable and indigenous communities and business models for energy conversion in Latin America".</p> <p>Facebook: https://www.facebook.com/BERSTICUCC/posts/1742953029400878 LinkedIn: https://www.linkedin.com/feed/update/urn:li:activity:6934520018323861505 Twitter: https://twitter.com/BersticUCC/status/1528764671662215168</p> <p>- Participatory talk "Waste as a resource to improve social and environmental sustainability in rural and vulnerable areas".</p> <p>Facebook: https://www.facebook.com/BERSTICUCC/posts/1743836132645901 LinkedIn: https://www.linkedin.com/feed/update/urn:li:activity:6934950141116235776</p> <p>- Creation of a video to spread CELISE with students of IES Augusto González de Linares to contribute with WP3.</p> <p>- Discussion in the Identities Lab. Socialisation of the CELISE project. Sharing cultural aspects of Cali, Colombia through salsa dance, related to task 3.3.</p> <p>https://laboratoriodeidentidades.com/eventos/</p>
Alberto	UC	FICH-UNL	1	1.87	<p>- Teaching and collaborating in the management of a postgraduate course of 60 hours about biofuels. The course was carried out from 27th June to 6th July with more than 20 people attending.</p> <p>Twitter: https://twitter.com/CELISE_Project/status/1545025608018690051?s=20&t=0N_Z98kvaShDew2CteJygA LinkedIn: https://www.linkedin.com/feed/update/urn:li:activity:6950792643253551104</p> <p>- 2 Seminars about my expertise and the CELISE project (1:30 hour each). One of them to the GPBIA group of FICH-UNL and the other one more open to other groups at FICH-UNL</p> <p>Twitter: https://twitter.com/CELISE_Project/status/1536833625517268992?s=20&t=0N_Z98kvaShDew2CteJygA LinkedIn: https://www.linkedin.com/feed/update/urn:li:activity:6942598428027711488</p> <p>- 1 Seminar about the CELISE project at Latitud, LATU, Montevideo, Uruguay.</p> <p>LinkedIn: https://www.linkedin.com/feed/update/urn:li:activity:6958455892577038336</p>

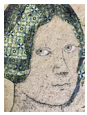


8. PLANNING OF THE TRAINING PROGRAM FOR THE REST OF LIFE OF THE PROJECT

A total of 78 secondments will be made in the project, involving 48 participants from Universities (27), Research Centres (7) and industry (14), 46% of them are female. The secondments involve 126.16 Person Month. From the 78 secondments, 24 of them are hosted by the sixth SMEs (INOCURE, CCC, ECORES, VoCATE, TWI and QAI). and 28 hosted by the four partners from third countries, UCC from Colombia, UNACH from Ecuador, UCL from Argentina and Latitud from Uruguay.

In order to complete a training program related to the knowledge of transfer per institution and the objectives of CELISE, a chronogram of all secondments and dates are shown in Figure 1, ordered according to the sending institution and indicating the profile and gender of the person involved in the secondment. The secondments are divided into WP1 and WP2 with 37 (59.39 PM), and 37 (60.2 PM) secondments, respectively. All these secondments will be related to the scientific and training objectives of CELISE. Regarding the secondments related to WP1, the transfer of knowledge about the best characterisation methods, properties and additives (5.2 PM), and biomass processing (34.66 PM) together with the creation of knowledge about novel hydrolysis processes (5.53 PM), high-quality biochar production (6 PM), and novel and sustainable cellulose-based biocomposites (8 PM) will be done. On the other hand, in relation to WP2, the transfer of knowledge about simulation and other mathematical tools (25 PM), and the development of business models (19.2 PM), design of smart system algorithms (7 PM) and design of portable pieces of equipment (9 PM) in small biorefineries will be done. In addition, 4 secondments (6.57 PM) related to the task 3.3 in WP3, design of educational programmes, have been proposed. In Figure 1 the specific task is indicated by colour and adding the hosting institution. All this schedule is based on the people involved to be able to not only attend the secondments, but also attend to the secondments they receive.

As part of the importance of the transferable skills at the end of the secondments, the main transfer mechanism and reintegration mechanism have been added in all secondments in Figure 1, in red.



D3.1: Report of training program

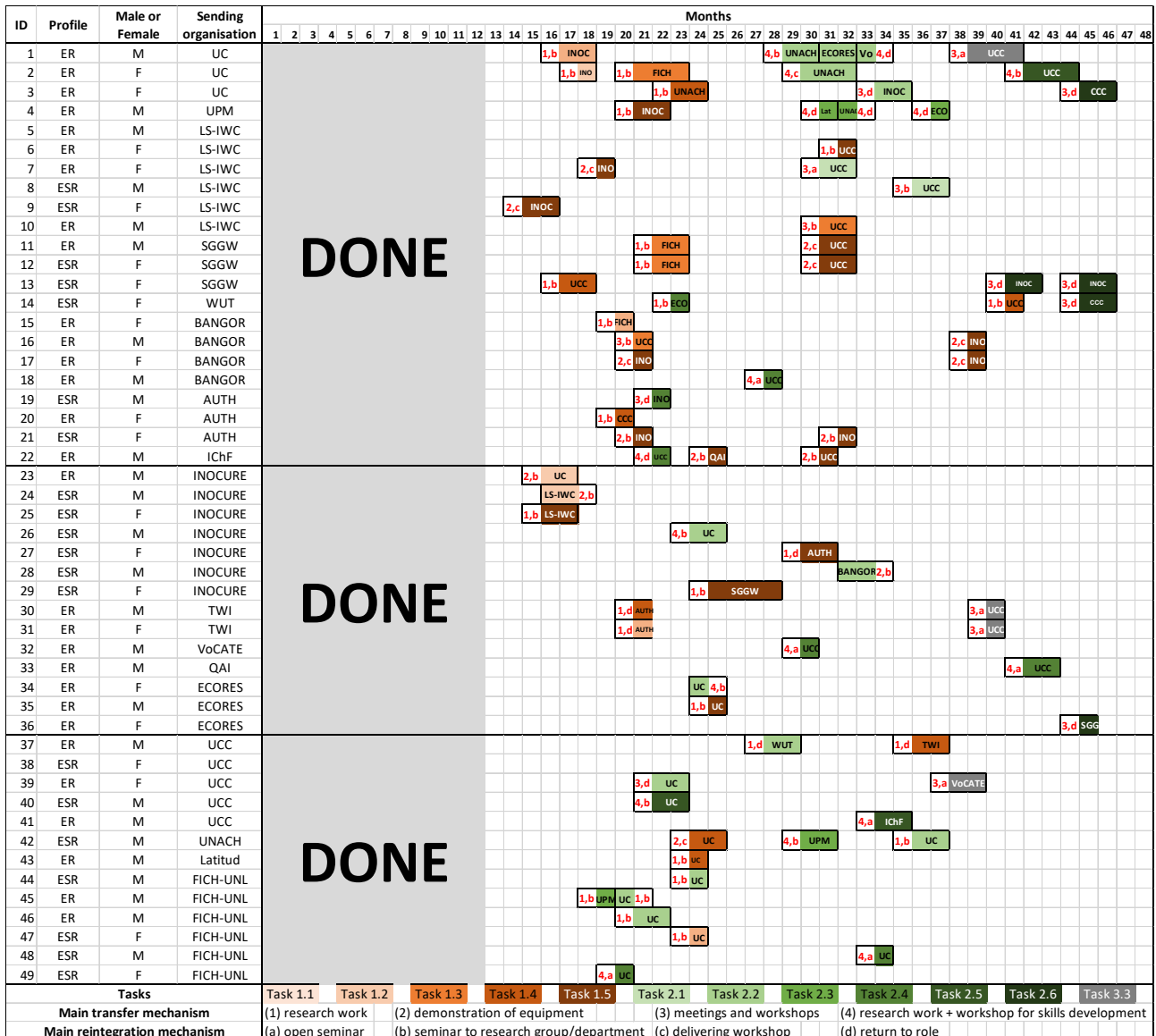


Figure 1. Summary and chronogram of the secondments, tasks, transfer mechanisms and reintegration mechanisms for the rest of the life of CELISE.

Apart from the secondments and in order to reinforce the transfer of knowledge plan, two workshops, one symposium and one training school will be organised. Table 7 shows the main transfer of knowledge per activity.

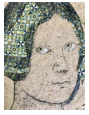


D3.1: Report of training program



Table 7. Summary of other activities for the rest of the life of CELISE.

Activity	Summary	Hosted by	Month	Face to face or online	WPs
Workshop	Pre-treatment or fractionation of biomass residues by novel and sustainable methods. The use of deep eutectic solvents, ionic liquids and other methods will be shown in this workshop.	AUTH and ECORES	22-24	On-line	1
Workshop	Novel processes of cellulose and nanocellulose fibres for SMEs and how to study the morphology and other technical, mechanical, thermal characteristics of the cellulose fibres. This one can be related to the Mid-Term meeting.	SGGW	To be confirmed	Face to face	1 and 2
Symposium	Best tools for biorefinery options, including neural analysis, life cycle assessment, simulation by Aspen and others. Other stakeholders will be invited	UPM with the help of the Spanish platform BIOPLAT	28-30	On line	2 and 4
Training school	Production of artisan and artistic products from lignocellulosic resources using sustainable processes. The production of ancient paper and bio-composites from an artisan and sustainable point of view will be given. Different sheet tests were carried out using charges of adhesives, dyes, UV protectors and additives. Some artistic possibilities in the final products will be studied: engraving techniques, dry drawing techniques, water drawing techniques and heat and solvent transfer.	UC, with the help of two companies: Dinamo and Besarte	44-46	To be confirmed	1, 2 and 3

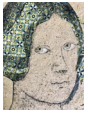


9. CONCLUSIONS

This deliverable D2.1 described all training activities performed by the CELISE consortium in the first twelve months of the execution of the project, as well as the list of the research and transferable skills acquired by the seconded staff members of CELISE. Moreover, it showed the involvement of all consortium members including Partner Organisations from third countries.

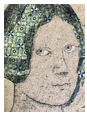
The data was gathered by compiling all the Secondment Plan Final Reports of the secondments executed so far and by the Reports on Training Activities received by the Network Administrator up to date. In addition, this deliverable will be extensively presented in the next Steering Committee meeting as it will serve as a reference for the discussion of how efficient the CELISE Training Program has been so far. Based on it, corrective measures to boost the training will be sought.

The final document of the training program will be submitted at the end of the project, specifically in the Deliverable D3.2 "Final transfer of knowledge and training report. Decisions on future cooperation".





10. REFERENCES

All references have been added as hyperlinks on this document.



11. ANNEX 1

	CELISE Secondment Plan	
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Related WP	
Name of Seconded	
Supervisor/Sending Institution	
Supervisor/Hosting Institution	
Secondment period	

BRIEF OVERVIEW OF TASKS TO BE CARRIED OUT DURING THE SECONDMENT AND CONTRIBUTION TO SPECIFIC DELIVERABLES, ACCORDING TO ANNEX I OF THE GRANT AGREEMENT

Add text here

SECONDMENT OBJECTIVES AND ACCOMPLISHMENTS EXPECTED	
Anticipated research results such as publications, conferences, workshop attendance, courses, and /or seminar presentations	
Research skills and techniques acquired such as training in specific new areas, or technical expertise, etc.	
Other professional training (course work, teaching, etc.)	
Anticipated networking opportunities	
Research management	
Communication skills	
Outreaching activities	
Other activities with professional relevance (community, etc.)	

DATE and SIGNATURES		
Seconded:	Supervisor at Sender:	Supervisor at Host:



D3.1: Report of training program



	CELISE Secondment Final Report	
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Related WP	
Name of Secondee	
Supervisor/Sending Institution	
Supervisor/Hosting Institution	
Secondment period	

BRIEF OVERVIEW OF TASKS CARRIED OUT DURING THE SECONDMENT AND CONTRIBUTION TO SPECIFIC DELIVERABLES, ACCORDING TO ANNEX I OF THE GRANT AGREEMENT

SECONDMENT OBJECTIVES ACHIEVED DURING THE TRAINING PERIOD	
Research results such as publications, attendance to conferences and workshops, courses, and /or seminar presentations	
Research skills and techniques acquired such as training in specific new areas, or technical expertise, etc.	
Other professional training (course work, teaching activity)	
Anticipated networking opportunities	
Research management	
Communication skills	
Outreaching activities	
Other activities with professional relevance (community, etc.)	

DATE and SIGNATURES		
Secondee:	Supervisor at Sender:	Supervisor at Host: