

S2Biom Project Grant Agreement n°608622

D10.21 Plan for the Use and Dissemination of Foreground (PUDF)

November 2016



About S2Biom project

The S2Biom project - Delivery of sustainable supply of non-food biomass to support a “resource-efficient” Bioeconomy in Europe - supports the sustainable delivery of non-food biomass feedstock at local, regional and pan European level through developing strategies, and roadmaps that will be informed by a “computerized and easy to use” toolset (and respective databases) with updated harmonized datasets at local, regional, national and pan European level for EU28, Western Balkans, Moldova, Turkey and Ukraine. Further information about the project and the partners involved is available under www.s2biom.eu.

Project coordinator



Scientific coordinator



Project partners



About this document

This report corresponds to D10.21 - Plan for the Use and Dissemination of Foreground (PUDF) of S2Biom. It has been prepared by: WIP Renewable Energies with contribution of all S2Biom project partners.

Due date of deliverable:	August 2016
Actual submission date:	30 November 2016
Start date of project:	2013-01-09
Duration:	36 months

Work package	WP10
Task	Task 10.10
Lead contractor for this deliverable	WIP Renewable Energies
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Quality reviewer	

Dissemination Level		
PU	Public (Part A)	X
PP	Restricted to other programme participants (including the Commission Services)	
RE	Restricted to a group specified by the consortium (including the Commission Services):	
CO	Confidential, only for members of the consortium (including the Commission Services)	X

This project is co-funded by the European Union within the 7th Framework Programme. Grant Agreement n°608622. The sole responsibility of this publication lies with the author. The European Union is not responsible for any use that may be made of the information contained therein.

Introduction

The S2Biom Plan for the Use and Dissemination of Foreground (PUDF) is elaborated in order to coordinate dissemination and exploitation activities within the project and to guarantee the effective use of S2Biom project results during and beyond project duration. This Plan is continuously updated by project partner WIP in close cooperation with all project partners (D10.5, D10.7, D10.13). This is the final version of the PUDF (Deliverable D10.21) and is presented together with the final project report.

The PUDF is divided into two sections. Section “A” presents activities related to the dissemination of project work and results, Section “B” presents exploitable foreground generated in the project and strategies for the effective use of foreground.

The dissemination activities of the project described in Section “A” are part of WP10 of the S2Biom work program which aims at proactively disseminating project activities and results among stakeholders. This work package uses efficient ways to distribute and exploit S2Biom results. It actively promotes communication and exchange with specific target audiences in the scientific and industrial community. All activities are described in detail in this document.

Section “B” describes exploitable foreground generated by project partners in R&D related work packages including strategies for the exploitation of foreground. The basic rules for the exploitation of S2Biom foreground are provided by Part C – Intellectual Property Rights, Use and Dissemination of Annex II to the Grant Agreement. In addition, the rules specified in the Consortium Agreement are applied.

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Section “A” - Dissemination

1. Project website

A professional, attractive and user-friendly project website was developed and launched in November 2013 using Joomla content management system (D10.1, Task 10.1). The website can be accessed under www.s2biom.eu.

The structure of the S2Biom website was elaborated by WIP Renewable Energies in close cooperation with the coordinator FNR and all project partners (Figure 1).

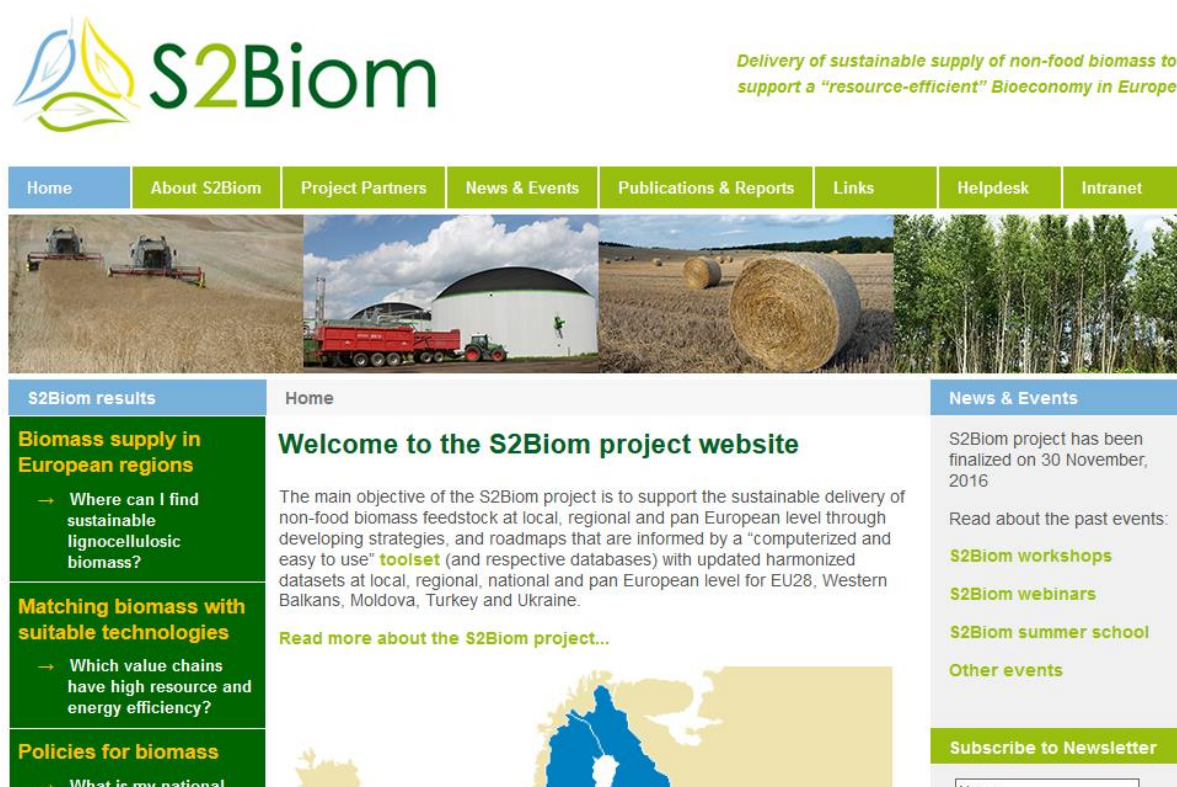


Figure 1: Home page of the S2Biom website

The S2Biom website has been continuously updated and expanded. At the end of the project, the website has been restructured to highlight the main outcomes of S2Biom project and to provide direct access to the S2Biom integrated tool set. In addition the ‘News & Events’ section of the website has been divided in sub-pages to provide better overview about the S2Biom events: workshops, webinars, summer school and other events.

The website will be maintained for at least 2 years after the project duration.

The **Helpdesk** section of the S2Biom website (Task 10.1) will remain active as well after the end of the project. It provides contacts of the project coordinator, who will be available for potential inquiries after the end of the project (Figure 2).



Delivery of sustainable supply of non-food biomass to support a "resource-efficient" Bioeconomy in Europe



Figure 2: Helpdesk section of the website

Through the **Intranet** section of the S2Biom website (Task 10.1), the website serves as a communication platform for project partners. Each partner has a user name and password enabling access to the intranet.

The Intranet section includes 2 sub-sections, one containing all project documents (e.g. deliverable reports) for download, the second one is a communication tool for dedicated discussions among project partners.

2. Information material

A **project logo** was created in order to increase the visibility of the project and to facilitate dissemination activities (Figure 3).



Figure 3: The S2Biom logo

The **S2Biom leaflet** (Figure 4) was elaborated at the beginning of the project (D10.2, Task 10.5) to provide interested stakeholders of the specific target audiences in the scientific and industrial community with an overview of the aims and objectives of the S2Biom project, namely to support the sustainable delivery of non-food biomass feedstock at local, regional and pan European level.

Background & Objectives

The main aim of this project is to support the sustainable delivery of non-food biomass feedstock at local, regional and pan European level through developing strategies, and roadmaps that will be informed by a "computerized and easy to use" toolset (and respective databases) with updated harmonized datasets at local, regional, national and pan European level for EU28, Western Balkans, Ukraine, Moldova and Turkey.

This target will be reached by comparing and making use of the most recent relevant information from recent and on-going EU projects by a set of carefully selected validation case studies and in concise collaboration with key stakeholders from policy, industry and markets.

The project fits under the overall umbrella of the Europe 2020 strategy for the building of a bio-economy, as well as the targets for deployment of renewable energies and reduction of greenhouse gas emissions.

The project will build up a concise knowledge base both for the sustainable supply and logistics of non-food biomass (quantities, costs, technological pathway options for 2020 and beyond), for the development of technology and market strategies to support the development of a "resource efficient" Bio-economy for Europe.



Delivery of sustainable supply of non-food biomass to support a "resource-efficient" Bio-economy in Europe







Activities

The project activities will be implemented in three individual but strongly interrelated Themes:

- Theme 1 will focus on methodological approaches, data collection and estimation of sustainable biomass potentials, resource efficient pathways and optimal logistical supply routes as well as the development of a computerized toolset.
- Theme 2 will make use of the findings of Theme 1 and develop a Vision, Strategies and an R&D roadmap for the sustainable delivery of non-food biomass feedstock at local, regional and pan European level.
- Theme 3 will validate the findings from Themes 1 and 2 and ensure the project outreach.

Target countries

The target countries within S2Biom Project are the EU28 countries as well as Western Balkans, Ukraine, Moldova and Turkey.

For more information, we invite you to visit the project website under: www.s2biom.eu



S2Biom Coordination:
FNR, Germany

S2Biom Scientific Coordinator:
Imperial, United Kingdom

S2Biom Partners:

- DLO, The Netherlands
- University of Freiburg, Germany
- B.T.G., The Netherlands
- Biomass Research, The Netherlands
- CENER, Spain
- Cenae-Bio, United Kingdom
- CERTH, Greece
- GIRCE, Spain
- CLEVER CONSULT, Belgium
- ECN, Netherlands
- EPI, Finland
- EU-SEI, Turkey
- IIASA, Austria
- IINAS GmbH, Germany
- INCECEI, Italy
- INRA, France
- IUNG-PIB, Poland
- JR, Austria
- JRC, Belgium
- Luke, Finland
- REA, Ukraine
- SDEWES Centre, Croatia
- SFVIGIS, Slovenia
- SYNCOM, Germany
- UBFME, Serbia
- UNIBO, Italy
- VITO, Belgium
- VTT, Finland
- WIP Renewable Energies, Germany



S2Biom has received funding from the European Union's Seventh Programme for research, technological development and demonstration under grant agreement No FP7-808622

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Figure 4: S2Biom project leaflet

Furthermore, a draft **project PPT-presentation** (D10.2, Task 10.5), providing a general overview of the S2Biom project, was elaborated by FNR for use by all project partners.

The **S2Biom project brochure** (D10.4, Task 10.5) was elaborated by WIP in February 2014 as one of the main dissemination tools (see in Figure 5). It has been used to efficiently spread the knowledge about the project among all relevant stakeholders (feedstock suppliers, industry, private stakeholders, administration, society and policy makers). The brochure was up-dated in March 2015 and was available in a hard copy (D10.10). The updated brochure included the first results of the project activities and was distributed in conferences and events by the partners.



Figure 5: S2Biom project brochure

At the end of the project the final project brochure (D10.15) should have been prepared. It has been decided in the final project meeting that final brochure should be different from the previous versions. Namely, the material should be shorter (in a form of leaflet), easy to read and should be used for advertising the S2Biom integrated toolset. WIP have prepared the English version of the material (see Figure 6) and it has been translated by S2Biom project partners in local languages (D10.18).

 <p>Delivery of sustainable supply of non-food biomass to support a "resource-efficient" bio-economy in Europe</p> <p>S2Biom Toolset</p> <p>AN EXPLANATION OF HOW TO EXPLORE THE DATA SETS AND USE THE PLANNING TOOLS</p>  <p><small>S2Biom is co-funded by the European Commission in the 7th Framework Programme (Project No. FP7-608622)</small></p> <p>www.s2biom.eu</p>	<p>www.s2biom.eu</p> <p>About S2Biom Toolset</p> <p>The S2Biom project has developed sophisticated but still user friendly computerised toolset which is intended to aid research, industry and policy makers in their work. This service is free of charge and open to everyone.</p> <p>S2Biom covers data for EU28, Western Balkans, Moldova, Turkey and Ukraine.</p> <p>What types of biomass are included?</p> <p>S2Biom provides data on lignocellulosic biomass:</p> <ul style="list-style-type: none"> → Forest biomass from primary forestry production → Forest industry residues → Agricultural biomass from primary field activities → Agricultural residues → Biowaste and post-consumer wood → Dedicated perennial crops <p>Who will use the S2Biom toolset?</p> <ul style="list-style-type: none"> → Researchers → Policy makers → Regional and development planners → Investors and biomass project developers 	<p>www.biomass-tools.eu</p> <p>The Biomass Supply & Cost tool</p>  <p>Use this tool to find out:</p> <ul style="list-style-type: none"> → Where is biomass found? → What is sustainable potential of biomass for 2030? → Which biomass and how much is available in your region? → How much does it cost? <p>Biomass supply and cost information is spatially detailed up to regional (NUTS3) level.</p>	<p>www.biomass-tools.eu</p> <p>Biomass & Technology matching tool 'Bio2Match'</p> <p>Use this tool to find out:</p> <ul style="list-style-type: none"> → Which conversion pathways are appropriate for biomass in your region? → Is there a need for biomass pre-treatment?  <p>'Bio2Match' works using two databases:</p> <ul style="list-style-type: none"> → Database of biomass properties → Database of conversion technologies <p>Both databases can be used independently as comprehensive information sources. They contain data about typical properties of various biomass types and factsheets of more than 50 conversion technologies.</p>
			

Figure 6: Leaflet for advertising the S2Biom integrated toolset

Finally, a **review paper on the state-of-the-art of "Sustainable supply of non-food biomass"** was elaborated in December 2015 (MS35, Task 10.3). The paper has been also presented during S2Biom dissemination event in Piran, Slovenia and during the S2Biom summer school in Athens, Greece.

All information materials described in this chapter can be accessed and downloaded from the S2Biom project website: <http://www.s2biom.eu/en/publications-reports/s2biom.html>

3. Project newsletter

A project newsletter has been produced on a bi-annual basis by WIP presenting results of the different S2Biom work packages (Task 10.2). All together 6 newsletters have been prepared during the project lifetime.

Each newsletter has been circulated to project partners and to a large number of stakeholders (feedstock suppliers, industry, private stakeholders, administration, civil society and policy makers). Newsletters have been disseminated electronically through S2Biom website.

All newsletters can be accessed and downloaded (in PDF) on the project web-site under the following link: <http://www.s2biom.eu/en/news-events/news.html>

Table 1 gives an overview about S2Biom newsletters, including the dates and short summary of the content.

Table 1: Overview about S2Biom project newsletters

Newsletter	Date	Contents
Issue 1 (D10.3)	February, 2014	<ul style="list-style-type: none"> • Overview about the project • Brief update on the project activities during the first 6 months of the project duration
Issue 2 (D10.6)	October, 2014	<ul style="list-style-type: none"> • Update on the progress of the toolset • Invitation to stakeholders to contribute to the advanced case studies • Synergies with other projects • Announcement of S2Biom events
Issue 3 (D10.9)	March, 2015	<ul style="list-style-type: none"> • Presentation of the review paper on the state-of-the-art of sustainable supply of non-food biomass for a resource efficient bioeconomy • Overview and the rationale of the scenarios developed in the project • Announcement of the upcoming S2Biom events
Issue 4 (D10.11)	September, 2015	<ul style="list-style-type: none"> • Progress of the toolset –the cost-supply database, biomass conversion pathway matching tool, BeWhere and LocaGISTICS – case study in Burgundy • Summary on a market review on the biomass demand for 2030 • Announcement of S2Biom events
Issue 5 (D10.14)	October, 2016	<ul style="list-style-type: none"> • Information about S2Biom toolset validation events – S2Biom summer school and dissemination conferences in Amsterdam and Piran • Information about webinar for the ‘Bio2Match’ tool • Announcement of the S2Biom final conference in Bratislava
Issue 6 (D10.19)	November, 2016	<ul style="list-style-type: none"> • Announcement of the end of the S2Biom project • Information about the S2Biom final conference • Advertising of the integrated toolset • Summary of the S2Biom main results and publications

4. Publications (European Commission Scientific Reporting)

S2Biom project results were disseminated via publications in scientific and trade journals as well as via presentations at conferences and other events. The following tables provide an overview on S2Biom publications according to five “publication types” specified in the on-line scientific reporting via the European Commission Research & Innovation Participant Portal.

- Table 2: **Peer reviewed publications**

- Table 3: **Papers in Proceedings of Conferences/Workshops**
- Table 4: **Articles/Section in edited books or book series**
- Table 5: **Thesis/Dissertations**
- Table 6: **University Publications/Scientific Monographs**

Table 2: List of peer reviewed publications (*: mandatory fields)

No	D.O.I. (Digital Object Identifier)	Title*	Author(s)*	Journal*	Publisher	Publisher location	ISSN	eISSN	Volume/ Issue*	Date of publication (dd/mm/yyyy)	URL	Relevant pages*	Open access ¹ Yes / No
1	10.3390/en7116825	Sustainability Criteria and Indicators for the Bio-Based Economy in Europe: State of Discussion and Way Forward	Uwe R. Fritsche; Leire Iriarte	Energies	MDPI	Basel, Switzerland	1996-1073		7/11	24/10/2014	http://www.mdpi.com/1996-1073/7/11/6825	6825-6836	Yes
2	10.20315/ASetL.105.3	The methodology for wood potential assessment in Slovenia	Ščap, Š., Triplat, M., Piškur, M., Krajnc, N..	<i>Acta silvae et ligni</i> ,	Silva Slovenica	Ljubljana	2335-3112		105	12/2014	http://eprints.gozdis.si/id/eprint/1609	27-40	Yes
3	10.1111/gcbb.12306	Bioethanol potential from miscanthus with low ILUC risk in the province of Lublin, Poland	Sarah J. Gerssen-Gondelach, Birka Wicke, Magdalena Borzęcka-Walker, Rafał Pudełko, Andre P.C. Faaij	Global Change Biology Bioenergy	John Wiley & Sons Ltd.				8/5	01/09/2015	http://onlinelibrary.wiley.com/doi/10.1111/gcbb.12306/full	909-924	Yes
4	10.1016/j.enconman.2015.03.056	A hybrid optimization model of biomass trigeneration system combined with pit thermal energy storage	Dominković, Dominik Franjo; Čosić, Boris; Bačelić Medić, Zlatko; Duić, Neven	Energy conversion and management	Elsevier	USA	0196-8904		104	01/11/2015	http://www.sciencedirect.com/science/article/pii/S0196890415002745	90-99	No

¹ Open Access is defined as free of charge access for anyone via the internet. Please answer "yes" if the open access to the publication is already established and also if the embargo period for open access is not yet over but you intend to establish open access afterwards.

No	D.O.I. (Digital Object Identifier)	Title*	Author(s)*	Journal*	Publisher	Publisher location	ISSN	eISSN	Volume/ Issue*	Date of publication (dd/mm/yyyy)	URL	Relevant pages*	Open access ¹ Yes / No
5	10.2298/TSCI160212114T	Influence of legislative conditioned changes in waste management on economic viability of MSW- fueled district heating system – case study	Tomić, Tihomir; Ćosić, Boris; Schneider, Daniel Rolph	Thermal science	Vinča Institute of Nuclear Sciences, Belgrade	Serbia	0354-9836	2334-7163	20/4	08/05/2016	http://thermal.science.vinca.rs/2016/4/7	1105-1120	Yes
6	10.1016/j.enconman.2016.04.090	Economic feasibility of CHP facilities fueled by biomass from unused agriculture land: Case of Croatia	Pfeifer, Antun; Dominković, Dominik Franjo; Ćosić, Boris; Duić, Neven	Energy conversion and management	Elsevier	USA	0196-8904		125	01/10/2016	http://www.sciencedirect.com/science/article/pii/S0196890416303363	All	No
7	10.1016/j.apenergy.2016.03.046	Zero carbon energy system of South East Europe in 2050	Dominković, Dominik Franjo; Bačeković, Ivan; Ćosić, Boris; Krajačić, Goran; Pukšec, Tomislav; Duić, Neven; Markovska, Nataša	Applied energy	Elsevier	USA	0306-2619		184	15/12/2016	http://www.sciencedirect.com/science/article/pii/S030626191630366X	All	No
8	Status: Accepted, to be published within soon	Evaluating the Potential of image based point clouds and LiDAR data for estimating forest heights	Ullah S, Adler P, Dees M, Datta P, Weinaker H, Koch B.	iForest- biogeosciences	SISEF - Italian Society of Silviculture and Forest Ecology					2017	http://www.sisef.it/forest/	13 pages	Yes

No	D.O.I. (Digital Object Identifier)	Title*	Author(s)*	Journal*	Publisher	Publisher location	ISSN	eISSN	Volume/ Issue*	Date of publication (dd/mm/yyyy)	URL	Relevant pages*	Open access ¹ Yes / No
9	Status: will be submitted in Dec.2016	Comparing image based point clouds and airborne laser scanning for the assessment and mapping of forest timber volume in the context of forest inventory.	Ullah S, Adler P, Dees M, Datta P, Koch B	mdpi forests journal	MDPI Open Access Journals Platform					2017		22	YES
10	Status: In preparation – to be submitted in 2017	Comparing image based point clouds and airborne laser scanning for the assessment of forest structure variables in mountain environment	Ullah S , Adler P, Dees M, Datta P, Koch B	To be defined						2017			YES
11	Status: In preparation – to be submitted in 2017	Working title: Spatial distribution of unused biomass from European forests.	EFI LUKE ALU-FR	Forest ecosystems						2017	https://foreste.cosyst.springeropen.com/		YES
12	Status: In preparation – to be submitted in 2017	Working title: Biomass mapping using Terra SAR	ALU-FR	TBD						2017			YES
13	Status: In preparation – to be submitted in 2017	Working title: Biomass mapping using optical time series high resolution optical data	JR ALU-FR	TBD						2017			YES

Table 3: List of papers in proceedings of conferences/workshops (*: mandatory fields)

No	D.O.I. (Digital Object Identifier)	Title*	Author(s)*	Proceedings*	Date of publication (dd/mm/yyyy)*	Start Date of Conf/Workshop (dd/mm/yyyy)*	End Date of Conf/Workshop (dd/mm/yyyy)*	Publisher*	Publisher location	ISBN	URL	Relevant pages	Open access ² Yes / No
1	-	Large scale forest biomass & harvesting potential & biomass supply potential maps - methods, examples and novel future options with a focus on sentinel	M. Dees, H. Gallaun, M. Schardt, P. Datta, F. Enßle, J. Ermert, B. Koch	Sentinel-2 for Science Workshop	Pending (It is not clear why ESA did not publish any submitted paper yet). In February 2016 it will be published in addition on the ALU-FR Website after clarification with ESA.	20/05/2014	22/05/2014	ESA	Frascati, Italy	-	http://seom.esa.int/S2forScience2014/ResearchGate	4 Pages	YES
2	-	Optimal Location of Biomass Power Plants for District Heating: the Case of Sisak-Moslavina County	Ćosić, Boris; Ban, Marko; Perković, Luka; Lončar, Dražen; Duić, Neven	Digital Proceedings of the 1 st South East European Conference on Sustainable Development of Energy, Water and Environment Systems	2014	29/06/2014	03/07/2014	Faculty of Mechanical Engineering and Naval Architecture	Croatia				

² Open Access is defined as free of charge access for anyone via the internet. Please answer "yes" if the open access to the publication is already established and also if the embargo period for open access is not yet over but you intend to establish open access afterwards.

No	D.O.I. (Digital Object Identifier)	Title*	Author(s)*	Proceedings*	Date of publication (dd/mm/yyyy)*	Start Date of Conf/Workshop (dd/mm/yyyy)*	End Date of Conf/Workshop (dd/mm/yyyy)*	Publisher*	Publisher location	ISBN	URL	Relevant pages	Open access ² Yes / No
3	-	An Optimization Model for Combining Seasonal Pit Thermal Energy Storage and Biomass Trigeneration Energy System	Dominković, Dominik F.; Bačelić Medić, Zlatko; Čosić, Boris; Duić, Neven	Digital Proceedings of 1 st South East European Conference on Sustainable Development of Energy, Water and Environment Systems	2014	29/06/2014	03/07/2014	Faculty of Mechanical Engineering and Naval Architecture	Croatia			All	
4	-	Evaluating the Potential of Stereo Aerial Photographs for Canopy Height Model Generation	Sami Ullah, Petra Adler, Matthias Dees, Barbara Koch	Der gepixelte Wald-reloaded Forstliche Forschungsberichte München, 214 (2015) Seite 83-90	12/2015	17/03/2015	18/03/2015	Förderverein Zentrum Wald-Forst-Holz Weihenstephan e.V	Freising, Germany	ISSN 1436-1566			
5	-	A Hybrid optimization model for biomass trigeneration plant location: the Case of the City of Petrinja, Croatia	Dominković, Dominik Franjo; Čosić, Boris; Perković, Luka; Ban, Marko; Duić, Neven	Proceedings of 4 th International Conference on Sustainability Science and Engineering	2015	26/05/2015	29/05/2015						
6	-	S2Biom database with logistical components of the biomass value chain	E. Annevelink et al.	23 rd European Biomass Conference and Exhibition, Vienna	2015	01/06/2015	04/06/2015	ETA-Florence				339-343	No

No	D.O.I. (Digital Object Identifier)	Title*	Author(s)*	Proceedings*	Date of publication (dd/mm/yyyy)*	Start Date of Conf/Workshop (dd/mm/yyyy)*	End Date of Conf/Workshop (dd/mm/yyyy)*	Publisher*	Publisher location	ISBN	URL	Relevant pages	Open access ² Yes / No
7	-	Lignocellulosic biomass as feedstock for energy, fuels, biobased chemicals and materials in Europe; An integrated assessment on using biomass resources among different demand sectors	M. Mozaffarian et al.	23 rd European Biomass Conference and Exhibition, Vienna	2015	01/06/2015	04/06/2015	ETA-Florence					No
8	-	Economic viability of biomass and MSW-fuelled district heating system: case of the city of Zagreb	Tomić, Tihomir; Ćosić, Boris; Schneider, Daniel Rolph	Digital Proceedings of the 10 th Conference on Sustainable Development of Energy, Water and Environment Systems - SDEWES	2015	27/09/2015	02/10/2015	SDEWES Centre	Croatia	1847-7178			
9	-	Economic potential of biomass from unused agriculture land for energy use: case of Croatia	Pfeifer, Antun; Dominković, Dominik Franjo; Ćosić, Boris	Digital Proceedings of the 10 th Conference on Sustainable Development of Energy, Water and Environment Systems - SDEWES	2015	27/09/2015	02/10/2015	SDEWES Centre	Croatia	1847-7178			

No	D.O.I. (Digital Object Identifier)	Title*	Author(s)*	Proceedings*	Date of publication (dd/mm/yyyy)*	Start Date of Conf/Workshop (dd/mm/yyyy)*	End Date of Conf/Workshop (dd/mm/yyyy)*	Publisher*	Publisher location	ISBN	URL	Relevant pages	Open access ² Yes / No
10	-	Location optimization for biomass trigeneration system with pit thermal energy storage: the case of the city of Petrinja	Ćosić, Boris; Dominković, Dominik; Franjo; Ban, Marko; Perković, Luka	Digital Proceedings of the 10 th Conference on Sustainable Development of Energy, Water and Environment Systems - SDEWES	2015	27/09/2015	02/10/2015	SDEWES Centre	Croatia	1847-7178			
11	-	Application of the bio-refinery concept in sugar industry: the case of sugar industry in Croatia	Šutalo, Zvonimir; Ćosić, Boris; Duić, Neven	Proceedings of the 2 nd eseia Conference SMART AND GREEN TRANSITIONS IN CITIES & REGIONS	2016	04/04/2016	06/04/2016		Austria				
12	-	Economically viable utilisation of biomass for energy conversion by applying the bio-refinery concept: the case of Croatia	Ćosić, Boris; Narodoslaw sky, Michael; Duić, Neven	Proceedings of the 2 nd eseia Conference SMART AND GREEN TRANSITIONS IN CITIES & REGIONS	2016	04/04/2016	06/04/2016		Austria				
13	-	S2biom survey of logistical concepts.	Annevelink, E. et al.	24 th European Biomass Conference and Exhibition, Amsterdam	2016	06/06/2016	09/06/2016	ETA-Florence				108-113	

No	D.O.I. (Digital Object Identifier)	Title*	Author(s)*	Proceedings*	Date of publication (dd/mm/yyyy)*	Start Date of Conf/Workshop (dd/mm/yyyy)*	End Date of Conf/Workshop (dd/mm/yyyy)*	Publisher*	Publisher location	ISBN	URL	Relevant pages	Open access ² Yes / No
14	-	LocaGISStics: design & evaluation of regional biomass delivery chains	Annevelink, E., I. Staritsky, B. Vanmeulebrouk, B. Elbersen & B. Gabrielle	24 th European Biomass Conference and Exhibition, Amsterdam	2016	06/06/2016	09/06/2016	ETA-Florence				174-175	
15	-	Bio2Match: a Tool for Optimising the Match between Lignocellulosic Biomass and Conversion Technologies	T.M. Lammens et al.	24 th European Biomass Conference and Exhibition, Amsterdam	2016	06/06/2016	09/06/2016	ETA-Florence				1381-1386	
16	-	Forest Biomass Mapping using TanDEM-X IDEM, Landsat based spectral characteristics and BWI-3 forest inventory	Pawan Datta, Heinz Galla, Barbara Koch, Mathias Schardt, Matthias Dees	FowiTa, Forstwissenschaftliche Tagung, Freiburg, Germany	01/09/2016	26/09/2016	29/09/2016	Institute of Forest Sciences, Chair of Silviculture, University of Freiburg	Freiburg, Germany	ISSN 1436-1566	http://www.fowita.de/fileadmin/Anfaehrtsskizzen/Programm/fowita16_abstractband.pdf	313	YES
17	-	Comparing the potential of stereo aerial photographs, stereo very high resolution satellite images and TanDEM-X for estimating forest height.	Ullah S, Adler P, Dees M, Datta P, Koch B	FowiTa, Forstwissenschaftliche Tagung, Freiburg, Germany	01/09/2016	26/09/2016	29/09/2016	Institute of Forest Sciences, Chair of Silviculture, University of Freiburg	Freiburg, Germany	ISSN 1436-1566	http://www.fowita.de/fileadmin/Anfaehrtsskizzen/Programm/fowita16_abstractband.pdf	305	YES

Table 4: List of articles/sections in an edited book or book series (*: mandatory fields)

No	D.O.I. (Digital Object Identifier)	Title*	Author(s)*	Title of the book (series)*	Volume	Date of publication (dd/mm/yyyy)*	Publisher	Publisher location	ISBN	URL	Relevant pages*	Open access ³ Yes / No
1	10.1002/9781118991978	Bioenergy Potential from Forest Biomass	Sylvain Leduc, Georg Kindermann, Nicklas Forsell, and Florian Kraxner	Handbook of Clean Energy Systems	1	2015	Wiley		9781118991978		35-48	No
2	10.1002/9781118991978	Policies and Modelling of Energy Systems for Reaching European Bioenergy Targets	Sylvain Leduc, Elisabeth Wetterlund, Erik Dotzauer, Johannes Schmidt, Karthikeyan Natarajan, Dilip Khatiwada	Handbook of Clean Energy Systems	6	2015	Wiley		9781118991978		3165-3182	No
3		Evaluating the Potential of Stereo Aerial Photographs for Canopy Height Model Generation	Ullah S., Adler P., Dees M., Koch B.	Forstliche Forschungsberichte München : Schriftenreihe des Zentrums Wald - Forst - Holz Weihenstephan	214	2015	Universität München. Forstwissen schaftliche Fakultät	Munich, Germany	ISSN: 0174-1810	http://www.foerdevereinforstzentrum.de/index.php/forstliche-forschungsberichte	83-90	No
4	Status: In preparation. To be published in 2017	Chapter 1: Biomass supply and logistics in both top down and bottom up assessments	Calliope Panoutsou, Bryce Stokes, Berien Elbersen, Matthias Dees, Branko Glavonjic and Ludger Wenzelides	Modeling and Optimization of Biomass Supply Chains Editor: Panoutsou, Calliope		2017	Elsevier					Yes

³ Open Access is defined as free of charge access for anyone via the internet. Please answer "yes" if the open access to the publication is already established and also if the embargo period for open access is not yet over but you intend to establish open access afterwards.

No	D.O.I. (Digital Object Identifier)	Title*	Author(s)*	Title of the book (series)*	Volume	Date of publication (dd/mm/yyyy)*	Publisher	Publisher location	ISBN	URL	Relevant pages*	Open access ³ Yes / No
5	Status: In preparation. To be published in 2017	Chapter 2: Existing modelling platforms for biomass supply in Europe: inputs, outputs and projection potentials	Berien Elbersen, Igor Staritsky, Nicklas Forsell, Sylvain Leduc, Peter Witzke	Modeling and Optimization of Biomass Supply Chains Editor: Panoutsou, Calliope		2017	Elsevier					Yes
6	Status: In preparation. To be published in 2017	Chapter 3: Biomass quality attributes: matching characteristics with biomass conversion requirements	Wolter Elbersen, Tijs Lammens, Eija Alakangas, Bert Annevelink, Paulien Harmsen	Modeling and Optimization of Biomass Supply Chains Editor: Panoutsou, Calliope		2017	Elsevier					Yes
7	Status: In preparation. To be published in 2017	Chapter 4: Modelling biomass logistics	Bert Annevelink, Perttu Anttila, Kari Väätäinen, Benoît Gabrielle, Daniel García Galindo, Sylvain Leduc, Igor Staritsky	Modeling and Optimization of Biomass Supply Chains Editor: Panoutsou, Calliope		2017	Elsevier					Yes
8	Status: In preparation. To be published in 2017	Chapter 5: Modelling demand for biobased sectors	Marc Londo, Joost van Stralen, Hamid Mozaffarian, Ayla Uslu, and Marco Pantaleo, Carolien Kraan	Modeling and Optimization of Biomass Supply Chains Editor: Panoutsou, Calliope		2017	Elsevier					Yes

No	D.O.I. (Digital Object Identifier)	Title*	Author(s)*	Title of the book (series)*	Volume	Date of publication (dd/mm/yyyy)*	Publisher	Publisher location	ISBN	URL	Relevant pages*	Open access ³ Yes / No
9	Status: In preparation. To be published in 2017	Chapter 6: Assessing forest biomass potentials	Joanne Fitzgerald, Matthias Dees, Perttu Anttila, Branko Glavonjic, Hans Verkerk, Marcus Lindner, Pawan Datta, Robert Prinz, Sergey Zudin	Modeling and Optimization of Biomass Supply Chains Editor: Panoutsou, Calliope		2017	Elsevier					Yes
10	Status: In preparation. To be published in 2017	Chapter 7: Assessing agricultural biomass potentials	Calliope Panoutsou, Berien Elbersen, Igor Staritsky	Modeling and Optimization of Biomass Supply Chains Editor: Panoutsou, Calliope		2017	Elsevier					Yes
11	Status: In preparation. To be published in 2017	Chapter 8: Assessing the potential from biowastes and post-consumer wood	Martijn Vis	Modeling and Optimization of Biomass Supply Chains Editor: Panoutsou, Calliope		2017	Elsevier					Yes
12	Status: In preparation. To be published in 2017	Chapter 9: Assessing the potentials for non-food crops	Jacqueline Ramirez, Andrea Monti, Berien Elbersen, Igor Staritsky, Calliope Panoutsou, Raymond Schrijver, Wolter Elbersen	Modeling and Optimization of Biomass Supply Chains Editor: Panoutsou, Calliope		2017	Elsevier					Yes

No	D.O.I. (Digital Object Identifier)	Title*	Author(s)*	Title of the book (series)*	Volume	Date of publication (dd/mm/yyyy)*	Publisher	Publisher location	ISBN	URL	Relevant pages*	Open access ³ Yes / No
13	Status: In preparation. To be published in 2017	Chapter 10: Future perspectives for research	Hans Langenveld, Berien Elbersen, Calliope Panoutsou	Modeling and Optimization of Biomass Supply Chains Editor: Panoutsou, Calliope		2017	Elsevier					Yes

Table 5: List of thesis/dissertations (*: mandatory fields)

No	D.O.I. (Digital Object Identifier)	Title*	Author(s)*	Date of approval (dd/mm/yyyy)*	Institution name*	Institution location	ISBN	URL	Open access ⁴ Yes / No
1	-	Economic viability of district heating system with biomass and municipal solid waste in the City of Zagreb	Tihomir Tomić	05/12/2014	University of Zagreb, Faculty of Mechanical Engineering and Naval Architecture	Zagreb, Croatia	-	http://bib.irb.hr/prikazi-rad?&rad=756178	Yes
2	-	Analysis of biomass production potential from short rotation crops on unused agriculture land for use in biomass power plants in Croatia	Antun Pfeifer	23/01/2015	University of Zagreb, Faculty of Mechanical Engineering and Naval Architecture	Zagreb, Croatia	-	http://bib.irb.hr/prikazi-rad?&rad=756177	Yes
3	-	The Potentials of TanDEM-X Based Forest Height Modelling: A Case Study from the Upper Rhine Valley and Southern Black Forest	Markus Höhl	25/01/2016	Chair of remote sensing and landscape information systems, University of Freiburg	Freiburg, Germany	-	-	No
4	-	Lignocellulosic crops in Europe: Integrating yield potentials with land potentials	Jacqueline Ramirez-Almeyda	15/06/2016	Department of Agricultural sciences (DipSA), University of Bologna	Bologna, Italy	-	-	No
5	Status: In preparation. To be published in 2017	Working title: Biomass mapping using remote sensing	Sami Dawar	2017	Chair of remote sensing and landscape information systems, University of Freiburg	Freiburg, Germany	-	-	No

⁴ Open Access is defined as free of charge access for anyone via the internet. Please answer "yes" if the open access to the publication is already established and also if the embargo period for open access is not yet over but you intend to establish open access afterwards.

Table 6: List of university publications / scientific monographs (*: mandatory fields)

No	D.O.I. (Digital Object Identifier)	Title*	Author(s)*	Title of the monograph*	Volume*	Date of publication (dd/mm/yyyy)*	Publisher*	Publisher location	ISBN	URL	Open access ⁵ Yes / No
1	-	Remote Sensing in Biomass Mapping: Accuracy Assessment of TanDEM-X (IDEM)	Sebastian Brackhane	Internal report at the Chair of remote sensing and landscape information systems	-	20/06/2015	University of Freiburg	Freiburg, Germany	-	-	NO

⁵ Open Access is defined as free of charge access for anyone via the internet. Please answer "yes" if the open access to the publication is already established and also if the embargo period for open access is not yet over but you intend to establish open access afterwards.

5. Dissemination activities (European Commission Scientific Reporting)

The following Table 7 provides an overview on S2Biom dissemination activities according to several “types of activities” specified in the on-line scientific reporting via the European Commission Research & Innovation Participant Portal.

Type of activities:

- Publications
- Presentations
- Posters
- Articles published in popular press
- Flyers
- Web sites / Applications
- Organisation of conferences
- Organisation of workshops
- Exhibitions
- Videos
- Films
- TV clips

Type of audience:

- Scientific community (higher education, research)
- Industry
- Civil society
- Policy makers
- Medias

Table 7: List of dissemination activities (*: mandatory fields)

No	Type of activities*	Main leader*	Title*	Date (dd/mm/yyyy)*	Place*	Type of audience*	Size of audience	Countries addressed*
1	Article publication in website	CIRCE	S2Biom review publication in CIRCE's website	07/09/2013	http://www.fcirce.es/web/data/project.aspx?source=allprojects&id=74427	Scientific community, Industry, Civil society, Policy makers, Medias	CIRCE website has 100.000 visits every year	International
2	Press release about S2Biom KoM in Berlin	CIRCE	"CIRCE colabora en un proyecto para desarrollar un plan de bioeconomía para Europa"	19/09/2013	http://www.fcirce.es/web/data/new.aspx?source=comActual&id=2094	Civil society, Medias	CIRCE website has 100.000 visits every year	International
3	Short PowerPoint presentation on the S2Biom project	CEI	Future of Biofuels. Policy, Environment and Technology	09/10/2013	Poznan, Poland	SMEs, business community.	20 participants	Poland
4	Informing the CEI Committee of the National Coordinators (CNC) about the S2Biom project with a short project summary	CEI	CEI Committee of the National Coordinators	10-11/10/2013	CEI Headquarters, Trieste, Italy	National Coordinators of 18 CEI Member States (representatives of relevant Ministries of Foreign Affairs from Central and Eastern Europe).	18-25 participants	18 CEI MS
5	Oral presentation	ALU- FR	Biomass definition, biomass potential, definitions and biomass potential assessment	17-18/10/2013	Expert Workshop "Resource Efficiency of EU Biobased Industries" JRC Institute for Environment and Sustainability, JRC, Ispra, Italy	Experts, stakeholders, scientists	40	International Workshop
6	PowerPoint presentation	Imperial College London	Policies, gaps and future frameworks for biomass in Europe	17-18/10/2013	JRC, Ispra BISO workshop	Experts, stakeholders, scientists	25	Europe

No	Type of activities*	Main leader*	Title*	Date (dd/mm/yyyy)*	Place*	Type of audience*	Size of audience	Countries addressed*
7	Short PowerPoint presentation on the S2Biom project	CEI	CEI Ministerial Conference on Science and Technology	29/10/2013	Conference Center at the Maritime Terminal, Trieste, Italy	Ministers for Science and Technology, State Secretaries, Deputy Ministers and High officials from the 18 CEI Member States, representatives of the European Commission.	30 participants	Albania, Austria, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Hungary, Italy, Montenegro, Poland, Romania, Serbia, Slovakia, Slovenia, European Commission
8	Press release with the PowerPoint presentation on the S2Biom project published on CEI website: "CEI Ministerial Meeting on Science and Technology in Trieste"	CEI	CEI Ministerial Conference on Science and Technology	29/10/2013	Conference Center at the Maritime Terminal, Trieste, Italy	Ministers for Science and Technology, State Secretaries, Deputy Ministers and High officials from the 18 CEI Member States, representatives of the European Commission.	30 participants	Wider public i.e. stakeholders interested in the geographical area of Central and Eastern Europe
9	Distribution of communication material	WIP	S2Biom	28-29/11/2013	BMZ/GIZ Policy Forum Berlin 2013 'Realising the Water, Energy and Food Security Nexus Berlin, Germany			Germany
10	Creation of an internal page on the CEI website	CEI	S2Biom	12/2013	Trieste, Italy	Visitors of CEI website	N/A	N/A
11	Website link on WIP website	WIP	S2Biom	02/12/2013	Munich, Germany	Visitors of WIP website	N/A	N/A
12	Website link on own homepage	SYNCOM	S2Biom	10/12/2013	Ganderkesee	Visitors of SYNCOM website	N/A	N/A
13	Informing the CEI Committee of the National Coordinators (CNC) about the S2Biom project with a short project summary	CEI	CEI Committee of the National Coordinators	16/12/2013	Ministry of Foreign Affairs, Budapest, Hungary	National Coordinators of 18 CEI Member States (representatives of relevant Ministries of Foreign Affairs from Central and Eastern Europe)	18-25 participants	18 Member States of the Central European Initiative

No	Type of activities*	Main leader*	Title*	Date (dd/mm/yyyy)*	Place*	Type of audience*	Size of audience	Countries addressed*
14	PowerPoint presentation	Imperial College London	S2Biom: Sustainable supply of non-food biomass to support a resource-efficient Bioeconomy in Europe	28/01/2014	CEI, Belgrade	Policy makers	50	Western Balkans
15	Distribution of communication material	WIP	S2Biom	05-07/02/2014	SAHYOG project meeting and workshop, New Delhi, India			
16	PowerPoint presentation	Imperial College London	The role of biomass in the European energy system	26/02/2014	Sustainable Energy Futures; MSc course, Imperial College London	MSc Students	30	EU +international
17	PowerPoint presentation	Imperial College London	Biomass supply issues	27/02/2014	Global Environmental Policy; MSc course, Imperial College London	MSc Students	30	EU +international
18	Distribution of communication material	WIP	S2Biom	03-06/03/2014	SWEETFUEL project meeting and workshop, 3-6 March 2014, Hyderabad, India			
19	Distribution of communication material	WIP	S2Biom	02/04/2014	Joint working group meeting between the EBTP & RHC TP and representatives of the European Commission, Brussels, Belgium			EU
20	Distribution of communication material	WIP	S2Biom	02-03/04/2014	SUCELLOG project meeting, Zaragoza, Spain			
21	Distribution of communication material	WIP	S2Biom	03-04/04/2014	BioTrade2020plus project meeting, Pamplona, Spain			

No	Type of activities*	Main leader*	Title*	Date (dd/mm/yyyy)*	Place*	Type of audience*	Size of audience	Countries addressed*
22	Short PowerPoint presentation on the S2Biom project	CEI	Informal Brainstorming Interagency Meeting on Advanced Biofuels	06/05/2014	CEI Headquarters, Trieste, Italy	Experts from the United Nations Economic Commission for Europe (UNECE), Organization for Security and Co-operation in Europe (OSCE), Joint Research Centre of the European Commission (JRC-EC), Energy Community, International Centre for Genetic Engineering and Biotechnology (ICGEB), International Centre for Applied Research and Sustainable Technology (ICARST), the Danish-based biotech company Novozymes and the University of Trieste	10 participants	Danube Region countries
23	Presentation	IINAS	Sustainable Bioenergy: Vision of a Coherent Framework.	12/05/2014	AEBIOM Conference 2014	Various stakeholders (e.g. industry, researchers, etc.)	100	EU, CA, US
24	Distribution of communication material	WIP	S2Biom	12-14/05/2014	AEBIOM European Bioenergy Conference, Brussels, Belgium	Various stakeholders (e.g. industry, researchers, etc.)	100	EU, CA, US
25	Poster presentation	ALU- FR	Large scale forest biomass & harvesting potential & biomass supply potential maps – methods, examples and novel future options with a focus on Sentinel 2	20-23/05/2014	First “Sentinel-2 for science workshop”, ESA-ESRIN, Frascati, Italy	Experts, stakeholders, scientists	100	International Workshop
26	Presentation	IINAS	(Bio)Energy for Sustainable Food Systems	12/06/2014	GIZ-DIE (for BMZ) Symposium „Sustainable Energy for Food - Challenges and solutions for sustainable energy use in the agriculture and food sector“ Bonn	Various stakeholders (e.g. industry, researchers, etc.)	60	DE, US, several African countries

No	Type of activities*	Main leader*	Title*	Date (dd/mm/yyyy)*	Place*	Type of audience*	Size of audience	Countries addressed*
27	Presentation	IINAS	Policies on biomass and sustainability in Europe and worldwide: Current status, key issues, impacts on demand and challenges ahead	23/06/2014	RVO workshop "Developing sustainable, biomass chains in a growing biobased economy: lessons learnt and challenges ahead" during 22nd EBCE, Hamburg	Mainly researchers	50	mainly EU, several African
28	Short PowerPoint presentation on the S2Biom project	CEI	High-level event on the Scientific Support to the Danube Strategy	24-25/06/2014	Aula der Wissenschaften, Vienna, Austria	Prominent European experts and stakeholders active in the Danube Region.	250-300 participants	Danube Region countries
29	Press release mentioning the S2Biom project published on CEI website and S2Biom dedicated page: "Development of advanced biofuels: CEI activities presented at JRC event in Vienna"	CEI	High-level event on the Scientific Support to the Danube Strategy	24-25/06/2014	Aula der Wissenschaften, Vienna, Austria	Prominent European experts and stakeholders active in the Danube Region; wider public i.e. stakeholders interested in the geographical area of Central and Eastern Europe.	250-300 participants	Danube Region countries; wider public i.e. stakeholders interested in the geographical area of Central and Eastern Europe
30	Oral presentation	ALU- FR	European wide cost-supply potentials from forestry - methodology and applications	29/06 - 03/07/2014	1 st South East European Conference on Sustainable Development of Energy, Water and Environment Systems - SEE SDEWES, Ohrid, Macedonia	Experts, stakeholders, scientists	50	EU and non EU countries
31	Short PowerPoint presentation on the S2Biom project	CEI	3 rd European Biorefining Training School	07-10/07/2014	Budapest, Hungary	Students, relevant stakeholders	40 participants	Danube Region countries

No	Type of activities*	Main leader*	Title*	Date (dd/mm/yyyy)*	Place*	Type of audience*	Size of audience	Countries addressed*
32	PowerPoint presentation	SFI	The future of bioenergy in Slovenia	15/09/2014	Bioenergy from Forest, Bioenergy from Root to Boilers, Interantional Bioenergy Conference; Helsinki	Experts and policy makers, scientists		
33	PowerPoint presentation	VITO	S2Biom: Sustainable supply of non-food biomass to support a resource-efficient Bioeconomy in Europe	16/09/2014	ERRIN Bioeconomy meeting, Brussels, Belgium	Policy makers	50	EU
34	Distribution of communication material	WIP	S2Biom	23-25/09/2014	4th International Conference on Lignocellulosic Ethanol, Landshut, Germany			
35	Short PowerPoint presentation on the S2Biom project	CEI	CEI Ministerial Meeting on Science and Technology	24/09/2014	Hotel Savoia Excelsior, Trieste, Italy	Relevant Ministries and scientific institutions.	30 participants	Albania, Austria, Belarus, Bosnia and Herzegovina, Czech Republic, Hungary, Italy, Moldova, Macedonia, Montenegro, Polonia, Romania, Serbia, Slovakia, Ukraine, European Commission
36	Final Communiqué including the "Note on CEI activities on Advanced Biofuels" with a short description of the S2Biom project published on CEI website and S2Biom dedicated page: "FINAL COMMUNIQUE": CEI Ministerial Meeting on Science and Technology"	CEI	CEI Ministerial Meeting on Science and Technology	24/09/2014	Hotel Savoia Excelsior, Trieste, Italy	Relevant Ministries and scientific institutions.	30 participants	Same as above

No	Type of activities*	Main leader*	Title*	Date (dd/mm/yyyy)*	Place*	Type of audience*	Size of audience	Countries addressed*
37	30 S2Biom leaflets distributed	CEI	CEI Ministerial Meeting on Science and Technology	24/09/2014	Hotel Savoia Excelsior, Trieste, Italy	Relevant Ministries and scientific institutions.	30 participants	Same as above
38	PowerPoint presentation, distribution of flyers and documents of S2Biom	Census-Bio	S2Biom	24/09/2014	Hotel Savoia Excelsior, Trieste, Italy	Relevant Ministries and scientific institutions.	30 participants	Same as above
39	Workshop	IINAS	Some EU research activities in bioenergy: S2Biom and Biotrade2020plus	25/09/2014	Kiev (Ukraine); EC-JRC/UABIO Workshop: Use of agricultural residues for bioenergy	Experts in bioenergy	40	EU neighbouring countries
40	Informing the CEI Committee of the National Coordinators (CNC) about the S2Biom project with a short PowerPoint presentation	CEI	CEI Committee of the National Coordinators	10/10/2014	CEI Headquarters, Trieste, Italy	National Coordinators of 18 CEI Member States (representatives of relevant Ministries of Foreign Affairs from Central and Eastern Europe)	18-25 participants	18 CEI Member States
41	Poster presentation	UNIBO	Sustainable integrated methodology LCA-GIS for the allocation of energy crops in Northern Italy	10-13/10/2014	ESPCA – Bioenergia, Campinas, SP, Brazil	Students, scientists	120 participants	International Advanced school
42	Distribution of communication material	WIP	S2Biom	20-22/10/2014	Sustainable Aviation Fuels Forum, Madrid, Spain			
43	Short PowerPoint presentation on the S2Biom project	CEI	EUSDR: DANUBIOM workshop	13/11/2014	Ministry of Foreign Affairs, Budapest, Hungary	Ministerial representatives, academia, international and regional organisations	25 participants	Austria, Hungary, Italy, Serbia, Romania
44	Distribution of S2Biom documents	Census-Bio	S2Biom	17/11/2014	Stoneleigh Warwickshire, UK	CEO Royal Agricultural Society		UK
45	Distribution of communication material	WIP	S2Biom	17-20/11/2014	6 th European Innovation Summit, European Parliament, Brussels			
46	PowerPoint presentation	VITO	Sustainability in bioeconomy - Country analysis: Belgium	20-21/11/2014	S2Biom & BISO sustainability workshop, Ispra, Italy	Experts, stakeholders, scientists	25	Europe

No	Type of activities*	Main leader*	Title*	Date (dd/mm/yyyy)*	Place*	Type of audience*	Size of audience	Countries addressed*
47	PowerPoint presentation	Imperial College London	Sustainability in bioeconomy	20-21/11/2014	S2Biom & BISO sustainability workshop, Ispra, Italy	Experts, stakeholders, scientists	25	Europe
48	Informing the CEI Committee of the National Coordinators (CNC) about the S2Biom project with a short project summary	CEI	CEI Committee of the National Coordinators	21/11/2014	Austrian Federal Ministry for Europe, Integration and Foreign Affairs, Vienna, Austria	National Coordinators of 18 CEI Member States (representatives of relevant Ministries of Foreign Affairs from Central and Eastern Europe)	18-25 participants	18 CEI Member States
49	Distribution of communication material	WIP	S2Biom	27-28/11/2014	International Energy Agency (IEA) Expert Workshop, São Paulo, Brazil			
50	Short PowerPoint presentation on the S2Biom project	CEI	High-level Workshop on Advanced Biofuels	28/11/2014	Faculty of Mechanical Engineering, Belgrade, Serbia	Selected experts, stakeholders, policy-makers, entrepreneurs, journalists	25 participants	Italy, Serbia
51	Press release mentioning the S2Biom project published on CEI website and S2Biom dedicated page: "High-level workshop on advanced biofuels in Belgrade"	CEI	High-level Workshop on Advanced Biofuels	28/11/2014	Faculty of Mechanical Engineering, Belgrade, Serbia	Selected experts, stakeholders, policy-makers, entrepreneurs, journalists; wider public i.e. stakeholders interested in the geographical area of Central and Eastern Europe	25 participants	Italy, Serbia; wider public i.e. stakeholders interested in the geographical area of Central and Eastern Europe
52	Press release "High-level workshop on advanced biofuels in Belgrade" mentioning the S2Biom project disseminated through "CEI Press - CEI Highlights 22 November - 2 December" sent by e-mail to 18 CEI National Coordinators and to the CEI Network of Focal Points	CEI	High-level Workshop on Advanced Biofuels	28/11/2014	Faculty of Mechanical Engineering, Belgrade, Serbia	Selected experts, stakeholders, policy-makers, entrepreneurs, journalists; wider public i.e. stakeholders interested in the geographical area of Central and Eastern Europe	25 participants	18 CEI Member States
53	Short PowerPoint presentation on the S2Biom project	CEI	Workshop on Innovation in Energy Efficiency and Renewable Energy	10-11/12/2014	Academy of Sciences of Moldova, Chisinau, Moldova	SMEs, business community.	40-50 participants	Austria, Germany, Hungary, Belarus, Moldova, Georgia, Armenia

No	Type of activities*	Main leader*	Title*	Date (dd/mm/yyyy)*	Place*	Type of audience*	Size of audience	Countries addressed*
54	Press release mentioning the S2Biom project published on CEI website and S2Biom dedicated page: "KEP AUSTRIA: maximising leverage effect of complementary initiatives in field of renewable energy"	CEI	Workshop on Innovation in Energy Efficiency and Renewable Energy	10-11/12/2014	Academy of Sciences of Moldova, Chisinau, Moldova	SMEs, business community; wider public i.e. stakeholders interested in the geographical area of Central and Eastern Europe	40-50 participants	Austria, Germany, Hungary, Belarus, Moldova, Georgia, Armenia; wider public i.e. stakeholders interested in the geographical area of Central and Eastern Europe
55	Press release "KEP AUSTRIA: maximising leverage effect of complementary initiatives in field of renewable energy" mentioning the S2Biom project disseminated through "CEI Press - CEI Highlights 11-18 December" sent by e-mail to 18 CEI National Coordinators and to the CEI Network of Focal Points	CEI	Workshop on Innovation in Energy Efficiency and Renewable Energy	10-11/12/2014	Academy of Sciences of Moldova, Chisinau, Moldova	SMEs, business community; wider public i.e. stakeholders interested in the geographical area of Central and Eastern Europe	40-50 participants	Austria, Germany, Hungary, Belarus, Moldova, Georgia, Armenia; 18 CEI Member States
56	Distribution of communication material	WIP	S2Biom	19-20/01/2015	12 th International Conference "Fuels of the Future", Berlin, Germany			
57	Distribution of communication material	WIP	S2Biom	20-23/01/2015	SRCplus Study Tour in Uppsala, Sweden	Academics, industry, policy makers, farmers	>10	Europe
58	Informing about the S2Biom project with a short project summary	ALU-FR	UNECE/FAO Forest & Timber Team of specialists on wood energy forest sector outlook	22-23/01/2015	Arona, Italy	Team of specialists on wood energy forest sector outlook	25	Several European countries
59	15 S2Biom leaflets distributed to external participants	CEI	1st Danube-INCO.NET Clustering Workshop on the European Research Infrastructure Consortium (ERIC)	03/02/2015	CEI Headquarters, Trieste, Italy	Ministries, research institutes, scientific institutions, National Academy of Science, European Commission	22 participants	Bosnia, Croatia, Germany, Hungary, Serbia, Slovakia, Ukraine, Finland, Italy; 18 CEI Member States

No	Type of activities*	Main leader*	Title*	Date (dd/mm/yyyy)*	Place*	Type of audience*	Size of audience	Countries addressed*
60	Informing the CEI Committee of the National Coordinators (CNC) about the S2Biom project	CEI	CEI Committee of the National Coordinators	03/02/2015	Ministry of Foreign Affairs, Macedonia	National Coordinators of 18 CEI Member States (representatives of relevant Ministries of Foreign Affairs from Central and Eastern Europe)	18-25 participants	18 CEI Member States
61	PowerPoint presentation	Imperial College London	The role of biomass in the European energy system	22/02/2015	Sustainable Energy Futures; MSc course, Imperial College London	Students following a weeks course on energy systems integration	30	EU +international
62	PowerPoint presentation	Imperial College London	Biomass supply issues	26/02/2015	Global Environmental Policy; MSc course, Imperial College London	MSc Students	30	EU +international
63	Distribution of communication material	WIP	S2Biom	02-03/03/2015	New Biofuels 2015" Workshop, Berlin, Germany			
64	Informing about the S2Biom project with a short project summary	ALU-FR	UNECE/FAO Forest & Timber Team of specialists on wood energy	11-13/03/2015	Vienna, Austria	Team of specialists on wood energy	25	Several European countries
65	Oral presentation	ALU- FR	Evaluating the Potential of Stereo Aerial Photographs for Canopy Height Model Generation	17-18/03/2015	"Fachtagung Der gepixelte Wald – Reloaded. Forstliche Fernerkundung"Freising, Germany	Experts, stakeholders, scientists	200	Germany, Austria, Switzerland
66	100 S2Biom leaflets distributed	CEI	ERRIN/ERIAFF event "Boosting economic growth and facilitating investments through Bioeconomy: How to build effective regional strategies"	19-20/03/2015	Committee of the Regions, Brussels	European Commission, academia, European associations, international organisations, companies, governmental representatives	250 participants	EU Member States
67	50 S2Biom Newsletters (Issue 3) distributed	CEI	ERRIN/ERIAFF event "Boosting economic growth and facilitating investments through Bioeconomy: How to build effective regional strategies"	19-20/03/2015	Committee of the Regions, Brussels	European Commission, academia, European associations, international organisations, companies, governmental representatives	250 participants	EU Member States

No	Type of activities*	Main leader*	Title*	Date (dd/mm/yyyy)*	Place*	Type of audience*	Size of audience	Countries addressed*
68	25 S2Biom brochures distributed	CEI	ERRIN/ERIAFF event "Boosting economic growth and facilitating investments through Bioeconomy: How to build effective regional strategies"	19-20/03/2015	Committee of the Regions, Brussels	European Commission, academia, European associations, international organisations, companies, governmental representatives	250 participants	EU Member States
69	Short PowerPoint presentation on the S2Biom project	CEI	CEI-JRC European Workshop on Advanced Biofuels, Biorefinery and Bio-Economy 2015	25-27/03/2015	Park Inn Danube, Bratislava, Slovakia	Academia, research institutes, European Commission, OSCE, ministries, industry, companies	90 participants	Danube Region countries, Belgium, Italy, Poland, Spain, Switzerland
70	90 S2Biom leaflets distributed	CEI	CEI-JRC European Workshop on Advanced Biofuels, Biorefinery and Bio-Economy 2015	25-27/03/2015	Park Inn Danube, Bratislava, Slovakia	Academia, research institutes, European Commission, OSCE, ministries, industry, companies	90 participants	Danube Region countries, Belgium, Italy, Poland, Spain, Switzerland
71	90 S2Biom Newsletters (Issue 3) distributed	CEI	CEI-JRC European Workshop on Advanced Biofuels, Biorefinery and Bio-Economy 2015	25-27/03/2015	Park Inn Danube, Bratislava, Slovakia	Academia, research institutes, European Commission, OSCE, ministries, industry, companies	90 participants	Danube Region countries
72	Presentation	IINAS	Sustainability Challenges of Boosting the Bioeconomy	27/03/2015	CEI-JRC European Workshop: Advanced Biofuels, Biorefinery and Bioeconomy (ABBE): A Challenge for Central and East European Countries	Researchers and experts in biomass	70	EU neighbouring countries
73	S2Biom project promotion: project description and link published on 27/04/2015 on the FP7-609497 Danube-INCO.NET project website	CEI	S2Biom project promotion	27/04/2015	FP7-609497 Danube-INCO.NET project website under the section "Cooperation and Networks, "Projects": http://danube-inco.net/object/project/15128	Worldwide stakeholders interested in the geographical area of Central and Eastern Europe and in the energy, bioeconomy and biofuels topics	Worldwide stakeholders interested in the geographical area of Central and Eastern Europe and in the energy, bioeconomy and biofuels topics	18 CEI Member States

No	Type of activities*	Main leader*	Title*	Date (dd/mm/yyyy)*	Place*	Type of audience*	Size of audience	Countries addressed*
74	S2Biom project and S2Biom Workshop on sustainable supply of ligno-cellulosic biomass in Europe disseminated on 28/04/2015 through the FP7-609497 Danube-INCO.NET project Energy & Bioeconomy News Alert, 6 th Issue	CEI	S2Biom project and S2Biom Workshop on sustainable supply of ligno-cellulosic biomass in Europe promotion	28/04/2015		Danube Region stakeholders active in the field of energy and bioeconomy	599 Energy & Bioeconomy News Alert recipients	Danube Region countries
75	Annual Report 2014 of the Secretary General presenting the S2Biom project under "ANNEX 5. EU-FUNDED PROJECTS" published on CEI website	CEI	CEI Annual Report 2014	05/2015	CEI website under "Downloads, Publications": http://www.cei.int/sites/default/files/attachments/publications/annual_report_2014.pdf	Worldwide stakeholders interested in the geographical area of Central and Eastern Europe	Worldwide stakeholders interested in the geographical area of Central and Eastern Europe	Worldwide stakeholders interested in the geographical area of Central and Eastern Europe
76	Annual Report 2014 of the Secretary General presenting the S2Biom project under "ANNEX 5. EU-FUNDED PROJECTS"	CEI	CEI Committee of the National Coordinators	04/05/2015	Ministry of Foreign Affairs, Vienna, Austria	National Coordinators of 18 CEI Member States (representatives of relevant Ministries of Foreign Affairs from Central and Eastern Europe)	18 CEI National Coordinators	18 CEI Member States
77	PowerPoint presentation, distribution of flyers and documents of S2Biom	Census-Bio	S2Biom	08/05/2015	Various government offices in London, UK			UK
78	Distribution of S2Biom documents	Census-Bio	S2Biom	08/05/2015	House of Lords, London, UK			UK
79	PowerPoint presentation, distribution of flyers and documents of S2Biom	Census-Bio	S2Biom	08/05/2015	London, UK	Canadian High Commission		UK
80	PowerPoint presentation on S2Biom method & joint survey as part of an Infres presentation	Luke	Biomass from forests	19/05/2015	INFRES, LogistEC and EuroPruning Conference "Mobilization of wood biomass for energy and industrial use", FAO Headquarters in Via delle Terme di Caracalla, Rome	Experts, stakeholders, scientists	100	Several European countries

No	Type of activities*	Main leader*	Title*	Date (dd/mm/yyyy)*	Place*	Type of audience*	Size of audience	Countries addressed*
81	PowerPoint presentation, keynote at the EST-conference 2015	DLO-Alterra	"Availability and exploitation of renewable energy sources"	21/05/2015	Energy Science Technology, International Conference 2015, Karlsruhe, Germany	Industry and technology scientists in field of Renewable Energy Technologies	250-500	International Workshop
82	PowerPoint presentation	VITO	The role of biomass in the European energy system	22/05/2015	Energy Systems Integration (ESI) 101 Course, Leuven, Belgium	Students following a weeks course on energy systems integration	30	EU
83	PowerPoint Presentation	CERTH	Development of bioeconomy sectors and symbiotic relationships through research, pilot and demo projects	26/05/2015	Conference: "Bioeconomy & Industrial symbiosis: concepts for promoting sustainable growth and development", Athens, Greece	Partners of the FP7 BERST project (www.berst.eu) and the Intelligent Energy Europe EPIC2020 project (www.epic2020.eu)	39	Greece, Sweden, Germany, Italy, Netherlands, United Kingdom, Finland
84	Short overview (1-2 ppt slides) of project activities included in a presentation entitled "Development of bioeconomy sectors and symbiotic relationships through research, pilot and demo projects" delivered by Manolis Karampinis.	CERTH	Conference: "Bioeconomy and Industrial Symbiosis: concepts for promoting sustainable growth and development" Event co-organized by the FP7 BERST project and the IEE EPIC2020 project. Further information: http://www.berst.eu/PublicationDetail.aspx?id=1052	26/05/2015	Royal Olympic Hotel, Athens, Greece	Academia, researchers, industry, politicians	39	Greece, Netherlands, UK, Finland, Sweden, Italy, Germany,
85	Short PowerPoint presentation on the S2Biom project.	Luke	Standing Committee on Agricultural Research, 10 th meeting of SWG sustainable use of bioresources for a growing bioeconomy	27/05/2015	Joensuu, Finland	Committee members	15	Several European countries

No	Type of activities*	Main leader*	Title*	Date (dd/mm/yyyy)*	Place*	Type of audience*	Size of audience	Countries addressed*
86	Oral presentation	ALU- FR	Establishment of a lignocellulose cost-supply potential database for EU 28 and neighbour regions at NUTS 3 level	01-04/06/2015	EUBCE, Vienna, Austria	Experts, stakeholders, scientists	40	International Workshop
87	Poster	DLO-FBR	S2Biom database with logistical components of the biomass value chain	01-04/06/2015	EUBCE, Vienna, Austria	Experts, stakeholders, scientists, Industry	50	Europe
88	Poster presentation	IIASA	Bioenergy potential in The Netherlands: from national to local level	01-04/06/2015	EUBCE, Vienna, Austria	Experts, stakeholders, scientists, Industry	100	EU, International
89	PowerPoint presentation	VITO	Interaction of national policy fields for the mobilisation of biomass value chains	01-04/06/2015	EUBCE, Vienna, Austria	Experts, stakeholders, scientists (plenary presentation)	500	EU + international
90	Distribution of communication material	WIP	S2Biom	01-04/06/2015	WIP stand in EUBCE, Vienna, Austria	Academia, community of practitioners, biomass value chain stakeholders	Up to 1000 participants	Participants from 76 countries
91	S2Biom participation in EUBCE 2015 announced on CEI website (event calendar): http://www.cei.int/event_list/2015/06/11/all	CEI	24 th European Biomass Conference & Exhibition (EUBCE 2015) - 1CV.3.43 "Biomass Potentials and feedstock characterization"	03/06/2015	Messe Wien Congress and Exhibition Center, Vienna, Austria	Academia, community of practitioners, biomass value chain stakeholders	Up to 1000 participants	Participants from 76 countries
92	S2Biom poster presentation	CEI	24 th European Biomass Conference & Exhibition (EUBCE 2015) - 1CV.3.43 "Biomass Potentials and feedstock characterization"	03/06/2015	Messe Wien Congress and Exhibition Center, Vienna, Austria	Academia, community of practitioners, biomass value chain stakeholders	Up to 1000 participants	Participants from 76 countries
93	Poster presentation	UNIBO/DLO	Database for biomass crops as a tool to support the allocation of Dedicated Cropping for non-food biomass production on marginal lands	03/06/2015	EUBCE, Vienna, Austria	Experts, stakeholders, scientists	Up to 1000 participants	EU countries and others
94	Powerpoint, plenary session	DLO-Alterra	How much straw can be removed in the EU without negative effects on soil carbon?	04/06/2015	European Biomass Conference 2015, Vienna, Austria	Experts, stakeholders, scientists, Industry	100	Europe

No	Type of activities*	Main leader*	Title*	Date (dd/mm/yyyy)*	Place*	Type of audience*	Size of audience	Countries addressed*
95	Presentation	IINAS	Sustainability of EU woody biomass demand and supply in the global context: carbon balances, biodiversity and role of imports	04/06/2015	EUBCE 2015 in Vienna, Austria	Researchers and experts in biomass	40	EU
96	Distribution of communication material	WIP	S2Biom	05/06/2015	RRB-11, York, UK			
97	Poster presentation	ALU- FR	A data base on current and future sustainable cost-supply of lignocellulosic biomass in EU, Western-Balkan neighbour countries, Turkey and Ukraine - challenges, methods, uncertainties, results	06-09/06/2015	EUBCE 2016 – 24th European Biomass Conference & Exhibition. Amsterdam, The Netherlands.	Experts, stakeholders, scientists	400	International Conference
98	PowerPoint presentation including S2Biom method as part of a MADIE presentation	Luke	Finland's Use of Wood Biomass	15/06/2015	MADIE training for consultants	Experts, stakeholders, students	20	Norway, Italy, Croatia, Germany, Hungary, USA, Finland
99	Promotion of the S2Biom Workshop on sustainable supply of ligno-cellulosic biomass in Europe on CEI website (Event calendar): http://www.cei.int/event_list/2015/06/10/month/all/all/1	CEI	Workshop on Sustainable supply of ligno-cellulosic biomass in Europe: First results and tools testing of the S2Biom project	16/06/2015	Science14, Rue de la science, 14b, Brussels	Worldwide stakeholders interested in the geographical area of Central and Eastern Europe and in the energy, bioeconomy and biofuels topics		Worldwide
100	Promotion of the S2Biom Workshop on sustainable supply of ligno-cellulosic biomass in Europe on CEI website (homepage): http://www.cei.int/content/s2biom-project-workshop-sustainable-supply-ligno-cellulosic-biomass-europe-brussels-belgium	CEI	"Workshop on Sustainable supply of ligno-cellulosic biomass in Europe: First results and tools testing of the S2Biom project	16/06/2015	Science14, Rue de la science, 14b, Brussels	Worldwide stakeholders interested in the geographical area of Central and Eastern Europe and in the energy, bioeconomy and biofuels topics		Worldwide

No	Type of activities*	Main leader*	Title*	Date (dd/mm/yyyy)*	Place*	Type of audience*	Size of audience	Countries addressed*
101	S2Biom Workshop on sustainable supply of ligno-cellulosic biomass in Europe promotion on the FP7-609497 Danube-INCO.NET project website under the section "Information Service, "Events" published on 27/04/2015: http://danube-inco.net/object/event/15129	CEI	"Workshop on Sustainable supply of ligno-cellulosic biomass in Europe: First results and tools testing of the S2Biom project	16/06/2015	Science14, Rue de la science, 14b, Brussels	Worldwide stakeholders interested in the geographical area of Central and Eastern Europe and in the energy, bioeconomy and biofuels topics		Worldwide
102	PowerPoint presentation including S2Biom method as part of the presentation	Luke	Finland's Use of Wood Biomass	08/07/2015	Joensuu	scientists		EU
103	Meeting	Census-Bio, Imperial College, FNR	S2Biom	9-10/07/2015	Brussels, Belgium	EC officials		EU countries
104	PowerPoint presentation including S2Biom method as part of an Infres presentation	Luke	Finland's Use of Wood Biomass	07/09/2015	Meeting Prof. Kazuhiro Aruga, Joensuu	scientists		Japan
105	PowerPoint presentation	UNIBO	Integrated approach for sustainable allocation of biomass crops in Europa: insights from the S2BIOM project	14-16/09/2015	XLIV Convegno SIA, Società Italiana di Agricoltura, Bologna, Italy	Experts, students, scientists	180 participants	Italian conference
106	Distribution of communication material	WIP	S2Biom	15-17/09/2015	5 th International Conference on Lignocellulosic Ethanol (ICLE), Brussels	Academics, industry, policy makers	>150	Europe + International
107	Oral presentation	ALU- FR	Building a "resource efficient" biobased economy for Europe – Lignocellulosic biomass cost supply	01/10/2015	Vision for the sustainable and resource efficient biomass use in Europe Workshop of the JRC Institute for Environment and Sustainability, JRC, Ispra, Italy	Experts, stakeholders, scientists	40	International Workshop

No	Type of activities*	Main leader*	Title*	Date (dd/mm/yyyy)*	Place*	Type of audience*	Size of audience	Countries addressed*
108	PowerPoint presentation	ECN	Lignocellulosic biomass as feedstock for biobased chemicals & materials in Europe; A quantitative estimate of biomass demand for 2020 and 2030	01/10/2015	Ispra, Italy	Experts, stakeholders, scientists, policy makers	20	Europe
109	PowerPoint presentation	Imperial College London	Requirements for an optimised regulatory and political framework from 2020 to 2030	01/10/2015	JRC, Ispra BISO workshop	Experts, stakeholders, scientists	25	Europe
110	PowerPoint presentation	Imperial College London	Framework conditions for biorefineries in Europe– what is next?	10/10/2015	DG RTD, Brussels; Workshop for research in biorefineries	Experts, stakeholders, scientists	50	EU
111	Short presentation of S2Biom project	CEI	EU-Eastern Partnership STI Cooperation in Addressing Energy Research and Innovation. Policy Stakeholders Conference	12/10/2015	Minsk, Belarus	Academia, research institutes, European Commission, ministries, UNECE, industry, companies	100	Belarus, Ukraine
112	PowerPoint presentation	Imperial College London	New supply & demand data on biomass use for energy, fuels & organic chemicals in Europe	13/10/2015	ERRMA, Brussels	Experts, stakeholders, scientists	50	EU
113	PowerPoint presentation	VITO	Strategies towards a resource-efficient biobased economy – benchmarking country approaches	21-23/10/2015	CASTLE conference “Towards a Sustainable Bioeconomy”, Barcelona, Spain	Experts, stakeholders, scientists	50	EU
114	Meeting	IUNG	S2Biom	22/10/2015	Lublin Eco-Energy Cluster	stakeholders	20	Poland Lublin Region
115	Distribution of communication material	WIP	S2Biom	26-28/10/2015	IEA Bioenergy Conference 2015, Berlin, Germany	Academics, industry, policy makers	>250	Europe + International
116	Meeting	IUNG	S2Biom	27/10/2015	Lublin Eco-Energy Cluster	stakeholders	20	Poland Lublin Region
117	Meeting	IUNG	S2Biom	29/10/2015	Marshal Office	stakeholders	50	Poland Lublin Region

No	Type of activities*	Main leader*	Title*	Date (dd/mm/yyyy)*	Place*	Type of audience*	Size of audience	Countries addressed*
118	Oral presentation at workshop "Industry and Bio-energy, barriers, opportunities and needs"	BTG	Technologies for conversion of solid biomass to energy for industrial use: technical and economic aspects	09/11/2015	Baarn, Netherlands	Experts, stakeholders, policy makers, Industry	40	Netherlands
119	PowerPoint Presentation	IUNG	The potential of biomass waste for energy purposes	18/11/2015	Lubelskie Targi Energetyczne „Energetics"	stakeholders	100	Poland
120	PowerPoint presentation for research group	DLO-FBR	Demonstration LOCAgistics	26/11/2015	Wageningen, The Netherlands	Scientist	25	Europe
121	Article in the newsletter of "Biobased Industries Consortium" (BIC's members Update")	Cleverconsult	Vision document of lignocellulosic biomass by 2030: take part in the S2BIOM consultation	12/2015	n/a	Stakeholders of biobased industry		EU
122	Promotion of the S2Biom Open consultation on lignocellulosic biomass	CEI	S2Biom Open consultation on lignocellulosic biomass	16/12/2015	CEI website (http://www.cei.int/content/s2biom-open-consultation-lignocellulosic-biomass-2030-get-involved-deadline-31-march-2016)	Worldwide stakeholders interested in the geographical area of Central and Eastern Europe and in the energy, bioeconomy and biofuels topics		Worldwide
123	Meeting	IUNG	S2Biom	16/12/2015	Lublin Eco-Energy Cluster	Stakeholders	15	Poland Lublin Region
124	Short presentation of S2BIOM project	CEI	44 th International Symposium "Actual Tasks on Agricultural Engineering"	23-26/02/2016	Opatija, Croatia	Academia, research institutes from Central, East and South-East Europe	100	Central, East and South-East Europe
125	100 S2Biom leaflets distributed	CEI	44 th International Symposium "Actual Tasks on Agricultural Engineering"	23-26/02/2016	Opatija, Croatia	Academia, research institutes from Central, East and South-East Europe	100	Central, East and South-East Europe
126	PowerPoint presentation	Imperial College London	The role of biomass in the European energy system	24/02/2016	Sustainable Energy Futures; MSc course, Imperial College London	Students following a weeks course on energy systems integration	30	EU +international

No	Type of activities*	Main leader*	Title*	Date (dd/mm/yyyy)*	Place*	Type of audience*	Size of audience	Countries addressed*
127	PowerPoint presentation	Imperial College London	Biomass supply issues	24/02/2016	Global Environmental Policy; MSc course, Imperial College London	MSc Students	30	EU +international
128	Distribution of S2Biom documents and bilateral meetings	Census-Bio	S2Biom	03/2016	UK, Belgium	Senior Staff of Dept for Environment for and Rural Affairs, Representatives of Dept for Energy and Climate Change, Representatives of the Canadian High Commission in London and the Canadian Embassy staff in Brussels, Senior staff of Scottish Government, National Farmers Union (England), Senior manager from Crown Commissioners, London, CEO of RASE, Head of School of Agriculture, University of Newcastle	~50	UK, Canada, Belgium
129	Short presentation of S2BIOM project	CEI	Energy Community, Renewable energy coordination group	01-03/03/2016	Vienna, Austria	Governmental representatives of the EnC constituency, experts, representatives of International Organizations	50	EnC signatories and International Organizations
130	50 S2Biom leaflets distributed	CEI	Energy Community, Renewable energy coordination group	01-03/03/2016	Vienna, Austria	Governmental representatives of the EnC constituency, experts, representatives of International Organizations	50	EnC signatories and International Organizations
131	Powerpoint presentation	Imperial College London	Sustainable Biomass for the Bioeconomy – S2Biom project: first results and tools	03/03/2016	Bio-based Industries Consortium Match Making Event Brussels	Industry	50	EU
132	Distribution of communication material	WIP	S2Biom	15/03/2016	Bin2Grid - Conference in Paris; City Hall in Paris	Waste industry, policy makers	>50	Europe
133	Distribution of communication material	SFI	S2Biom	17/03/2016	Challenges of forestry sector SFI – Ljubljana	Experts and policy makers	100	SL

No	Type of activities*	Main leader*	Title*	Date (dd/mm/yyyy)*	Place*	Type of audience*	Size of audience	Countries addressed*
134	PowerPoint presentation for Biorenewables Business Platform	DLO-FBR	LocaGISTics	01/04/2016	Utrecht, The Netherlands	Stakeholders	5	The Netherlands
135	Short overview (1-2 ppt slides) of project scope included in a presentation entitled "Research and demonstration projects in the bioenergy and bioeconomy sectors" delivered by Manolis Karampinis	CERTH	Info Day: "Use of biomass as an incentive for growth: applications, opportunities and requirements" Event co-organized by CRES and HELLABIOM in the framework of the Bioenergy4Business project. Further information: http://www.hellabiom.gr/wp-content/uploads/2015/12/Biomass_Day_B4B_Programme_31_03_2016_FINAL.pdf	08/04/2016	Metropolitan Expo, Athens, Greece	Academia, researchers, industry, investors, sector organizations & other stakeholders	~ 60 - 70	Greece
136	PowerPoint presentation	UNIBO/DLO	Assessment of the cropping potential and the development of dedicated crops database	17/05/2016	S2Biom Project Summer School, Athens, Greece	Students	40-50 participants	EU countries and others
137	PowerPoint presentation	IIASA	BeWhere tool for optimal technology, location and capacity of bio-energy production plants	17-20/05/2016	S2Biom Summer School, Athens, Greece	Researchers, PhD students	50+	European
138	Poster presentation	SYNCOM	S2Biom-Biofuel production in Northern Germany and East Poland	18-20/05/2016	CASCATBEL Workshop, Porto Carras, Greece	Workshop of pyrolysis experts	85	World wide
139	Oral presentation at Cascatbel workshop	BTG	Lignocellulosic biomass feedstock for thermochemical processing	20/05/2016	Porto Carras, Greece	Experts, stakeholders, scientists, Industry	70	Europe and USA
140	PowerPoint presentation	IIASA	A European overview of the woody biomass feedstock availability and its applications	24-26/05/2016	International wood biorefinery week, Stockholm, Sweden	Researchers, private enterprise	50+	International conference

No	Type of activities*	Main leader*	Title*	Date (dd/mm/yyyy)*	Place*	Type of audience*	Size of audience	Countries addressed*
141	Short presentation of S2Biom project	CEI	CEI Committee of the National Coordinators	30/05/2016	Ministry of Foreign Affairs, Vienna, Austria	National Coordinators of 18 CEI Member States (representatives of relevant Ministries of Foreign Affairs from Central and Eastern Europe) & Representatives of International Organizations based in Vienna (OSCE, EnC, OFID)	30	18 CEI Member States
142	PowerPoint presentation	SFI	Presentation of pilot project and S2Biom	03/06/2016	Maribor, potential investor and local community	Experts and local policy makers		
143	Poster	DLO-FBR	LocaGISTICS: design & evaluation of regional biomass delivery chains.	06-09/06/2016	EUBCE 2016, Amsterdam, the Netherlands	Experts, stakeholders, scientists, Industry	50	Europe
144	Poster presentation	SYNCOM	Feasibility of biofuel production chains in Northern Germany and Eastern Poland	06-09/06/2016	EUBCE 2016, Amsterdam, the Netherlands	Experts, stakeholders, scientists, Industry	100-200	EU countries and others
145	Distribution of communication material	WIP	S2Biom	06-09/06/2016	WIP stand in EUBCE 2016, Amsterdam, the Netherlands	Academics, industry, policy makers	>1 000	Europe + International
146	Promotion of S2Biom project at BTG stand on infomarket of EUCBE 2016	BTG	S2Biom	06-09/06/2016	EUBCE 2016, Amsterdam, the Netherlands	Experts, stakeholders, scientists, Industry	100	Europe
147	PowerPoint presentation, parallel session	DLO-FBR	S2biom survey of logistical concepts.	07/06/2016	EUBCE 2016, Amsterdam, the Netherlands	Experts, stakeholders, scientists, Industry	100	Europe
148	Oral presentation at EUBCE 2016 conference	BTG	Bio2Match: A Tool for Matching Biomass and Conversion Technologies	08/06/2016	EUBCE 2016, Amsterdam, the Netherlands	Experts, stakeholders, scientists, Industry	50	Europe
149	PowerPoint presentation	IC /ECN	1 billion tonnes lignocellulosic biomass for biobased economy by 2030 in Europe	08/06/2016	EUBCE 2016, Amsterdam, the Netherlands	Experts, stakeholders, scientists, Industry	100	Europe
150	Workshop at EUBCE 2016 conference, S2Biom side event	BTG	Matching Biomass and Conversion Technologies with Bio2Match	09/06/2016	EUBCE 2016, Amsterdam, the Netherlands	Experts, stakeholders, scientists, Industry	50	Europe

No	Type of activities*	Main leader*	Title*	Date (dd/mm/yyyy)*	Place*	Type of audience*	Size of audience	Countries addressed*
151	PowerPoint presentation	ECN	Lignocellulosic biomass as feedstock for energy, fuels, biobased chemicals & materials in Europe	09/06/2016	EUBCE 2016, Amsterdam, the Netherlands	Experts, stakeholders, scientists, Industry	50	Europe
152	PowerPoint presentation	DLO-FBR	Testing LocaGISStics tool for biomass chain design and evaluation	09/06/2016	S2Biom Workshop connected to EUBCE 2016, Amsterdam, the Netherlands	Experts, stakeholders, scientists, Industry	60	Europe
153	PowerPoint presentation	IIASA	Testing BeWhere tool for optimal technology, location and capacity of bio-energy production plants and evaluation	09/06/2016	EUBCE 2016, Amsterdam, the Netherlands	Researchers, private enterprise	30	International conference
154	Distribution of communication material	WIP	S2Biom	14/06/2016	Final BioTrade2020plus Workshop Brussels, Belgium	Academics, industry, policy makers	>40	Argentina, Latin America, Africa, Asia, Europe
155	Oral presentation	ALU- FR	S2Biom - project presentation	14-16/06/2016	Team of Specialists Wood Energy Meeting, Zagreb, Croatia	Experts, stakeholders, scientists	40	International working group meeting
156	Organisation of workshop	IUNG		15/06/2016	IUNG, Pulawy, Poland	Experts, students, scientists stakeholders	60	EU
157	PowerPoint presentation	DLO-FBR	The Chain Design Tool LocaGISStics	16/06/2016	S2Biom Second Dissemination conference, in combination with SWEDES, Piran Slovenia	Experts, stakeholders, scientists, Industry	50	Europe
158	Distribution of communication material	WIP	S2Biom	16/06/2016	SDEWES SEE Conference in Piran, Slovenia	Academia, research institutes from Central, East and South-East Europe	50 attendees to the workshop; 500+ attendees to the Conference	Central, East and South-East Europe

No	Type of activities*	Main leader*	Title*	Date (dd/mm/yyyy)*	Place*	Type of audience*	Size of audience	Countries addressed*
159	Extensive presentation of S2Biom Toolset and Case Studies	CEI	2 nd Dissemination Conference	16/06/2016	Piran, Slovenia (in the framework of the SDEWES SEE Conference)	Academia, research institutes from Central, East and South-East Europe	50 attendees to the workshop; 500+ attendees to the Conference	Central, East and South-East Europe
160	100 S2Biom leaflets distributed	CEI	2 nd Dissemination Conference	16/06/2016	Piran, Slovenia (in the framework of the SDEWES SEE Conference)	Academia, research institutes from Central, East and South-East Europe	50 attendees to the workshop; 500+ attendees to the Conference	Central, East and South-East Europe
161	100 S2Biom newsletters distributed	CEI	2 nd Dissemination Conference	16/06/2016	Piran, Slovenia (in the framework of the SDEWES SEE Conference)	Academia, research institutes from Central, East and South-East Europe	50 attendees to the workshop; 500+ attendees to the Conference	Central, East and South-East Europe
162	PowerPoint presentation	VITO	Policy database of S2Biom - overview and implications for SEE	16/06/2016	Second S2Biom Dissemination Conference - SUSTAINABLE BIOMASS POTENTIALS IN SEE, Piran, Slovenia	Energy, environmental experts, students	50	South-east Europe
163	PowerPoint presentation	SFI	Case Study Slovenia – Maribor	16/06/2016	2 nd South East European Conference on Sustainable Development of Energy, Water and Environment Systems, Piran, Slovenia	Experts and scientists	50	SEE countries

No	Type of activities*	Main leader*	Title*	Date (dd/mm/yyyy)*	Place*	Type of audience*	Size of audience	Countries addressed*
164	PowerPoint presentation	IIASA	BeWhere tool for optimal technology, location and capacity of bio-energy production plants	16/06/2016	South East European Conference on Sustainable Development of Energy, Water and Environment Systems, Piran, Slovenia	Researchers, private enterprise	50	International conference
165	Distribution of communication material	WIP	S2Biom	16-17/06/2016	Conference "Sustainable Alternative Aviation Fuels – The Way Forward", Brussels, Belgium	Academics, industry, policy makers	>70	Europe + International
166	PowerPoint presentation	Imperial College London	Sustainable Biomass for the Bioeconomy – S2Biom project: first results and tools	21/06/2016	European Biofuels Technology Platform, Brussels	Experts, stakeholders, scientists	100	EU + international
167	Oral and poster presentation	SYNCOM	S2Biom- Feasibility of biofuel production chains in Northern Germany and Eastern Poland	21-22/06/2016	Bioeconomy in agriculture, Pulawy, Poland	Agricultural experts Poland	100	Poland
168	PowerPoint presentation	Imperial College London	Biomass supply in the Danube region: Opportunities & challenges for policy and industry	19/07/2016	Danube Inco net Budapest	Experts, stakeholders, scientists	150	CEE
169	Short S2Biom Presentation	CEI	Danube-Inco.Net Triple Helix Conference	19-20/07/2016	Budapest, Hungary	Academia, research institutes, representatives of governmental bodies and of regions, EC and the business community	150	Danube Region
170	50 S2Biom leaflets distributed	CEI	Danube-Inco.Net Triple Helix Conference	19-20/07/2016	Budapest, Hungary	Academia, research institutes, representatives of governmental bodies and of regions, EC and the business community	150	Danube Region
171	50 S2Biom newsletters distributed	CEI	Danube-Inco.Net Triple Helix Conference	19-20/07/2016	Budapest, Hungary	Academia, research institutes, representatives of governmental bodies and of regions, EC and the business community	150	Danube Region

No	Type of activities*	Main leader*	Title*	Date (dd/mm/yyyy)*	Place*	Type of audience*	Size of audience	Countries addressed*
172	Oral presentation at meeting of the Innovation Centre Green Economy of the north-Veluwe	BTG	Bio-based perspectives on the future: a European context	30/08/2016	Putten, Netherlands	Experts, stakeholders, local policy makers	30	Netherlands
173	Presentation entitled "Potential of biomass co-firing in the lignite sector of South-East European countries: an investigation with the S2Biom toolset" delivered by Manolis Karampinis.	CERTH	6 th Workshop: Cofiring biomass with coal Event organized by the IEA Clean Coal Centre. Further information: http://cofiring6.coalconfere nces.org/ibis/cofiring6/home	14-15/09/2016	Sotacarbo, Carbonia, Italy	Academia, researchers, industry	75	International
174	PowerPoint presentation	SFI	Presentation OF pilot project and S2biom at ministry for environment	20/09/2016	Ljubljana, ministry for environment	Experts and policy makers		
175	Researchers night	VTT	S2Biom - poster and examples of biomass feedstocks	30/09/2016	Jyväskylä, Finland, Jyväskylä University	Different and private people	4,000	Finland
176	PowerPoint presentation on AWD conference	SDEWES	The S2Biom project – introduction	03-05/10/2016	Adriatic wood days conference - Dubrovnik, Croatia	Experts, stakeholders, scientists from wood and forest industry	250	EU and non EU countries (South east Europe countries)
177	PowerPoint presentation for research group	DLO-FBR	S2Biom survey of logistical concepts & demo LocaGIStics	13/10/2016	Wageningen, The Netherlands	Scientists	25	Europe
178	PowerPoint presentation	VITO	Exploring the outlook for biomass investments in a biobased economy	18-19/10/2016	Timber Investment Forum, London	Industry, investors, hedging funds	100	International
179	PowerPoint presentation	Luke	Discrete-event modelling of timber logistics	20/10/2016	Radisson Blu Royal Hotel, Helsinki, Finland	Scientific community, Industry	30	Finland, Canada, Sweden

No	Type of activities*	Main leader*	Title*	Date (dd/mm/yyyy)*	Place*	Type of audience*	Size of audience	Countries addressed*
180	PowerPoint presentation (plenary conference presentation)	VITO	European country approaches towards a resource efficient biobased economy	23-26/10/2016	1 st International Conference on Bioresource Technology for bioenergy, bioproducts and environmental sustainability, Sitges (ES)	Experts, stakeholders, scientists	300	EU, international
181	PowerPoint presentation	Luke	Discrete-event modelling of timber logistics	01/11/2016	Svenska Landsbruks Universitet, Umeå, Sweden	Scientific community	10	Finland, Sweden, Spain, Latvia
182	Article published in website about S2Biom case study within WP9	CIRCE	“Circe y Forestalia colaboran para impulsar la I+D en energías renovables en Aragón”	03/11/2016	http://www.fcirce.es/web/data/new.aspx?source=comPres&Releases&id=2547	Scientific community, Industry, Civil society, Policy makers, Medias	CIRCE website has 100.000 visits every year	International
183	Informing about the S2Biom project with a short project summary	SDEWES	The S2Biom project and sustainable utilisation of biomass in Croatia	09/11/2016	7 th Congress Of The Sawmill Industry of Southeast Europe, Slavonski Brod, Croatia	Experts from wood and sawmill industry	150	EU and non EU countries (South east Europe countries)
184	PowerPoint presentation	ECN	Lignocellulosic biomass: Future demand and supply, optimal use, and synergies between sectors	15/11/2016	Utrecht, Copernicus Institute internal seminar	Experts and academics	15	Europe
185	Power point presentation	Luke	Discrete-event modelling of timber logistics	17/11/2016	Jyväskylä, Finland	Scientific community, Industry, Civil society, Policy makers	40	Finland, Austria
186	S2Biom and BEST workshop	VTT	S2Biom Äänekoski results	17/11/2016	Jyväskylä, Finland	Industry, authorities, universities and education staff	40	Finland, Austria
187	PowerPoint presentation	IIASA	Optimal use of woody biomass for bio-energy in Europe	17/11/2016	Jyväskylä, Finland	Researchers, private enterprise	40	Finland, Austria

No	Type of activities*	Main leader*	Title*	Date (dd/mm/yyyy)*	Place*	Type of audience*	Size of audience	Countries addressed*
188	Distribution of communication material	WIP	S2Biom	21-23/11/2016	"Small-scale Biorefineries for Rural Development in Latin America and Europe", Buenos Aires, AR	Academics, industry, policy makers	>250	Argentina, Latin America, Europe
189	PowerPoint presentation	UNIBO	Lignocellulosic crops in Europe: Integrating yield potentials with land potentials	29/11/2016	Institute of Advanced Studies (ISA), PhD@ISA - A multiple lecture, Bologna, Italy	Ph.D. students, scientists	40 participants	International conference
190	Organization of Workshop	CIRCE	"Analysis of opportunities for the Agro-Biomass in Aragon region. Experiences from S2Biom project"	30/11/2016	Zaragoza, Spain	Scientific community, Industry, Civil society, Policy makers	75	Spain
191	Oral Presentation to a wider public	CIRCE	Presentation "Herramientas de apoyo para la planificación energética, la toma de decisiones y el planteamiento logístico de la cadena biomasa" about S2Biom tools	30/11/2016	Zaragoza, Spain	Scientific community, Industry, Civil society, Policy makers	75	Spain
192	Extensive presentation of S2Biom Toolset and Case Studies	CEI	"Biomass for growth: potentials and challenges of bioenergy in the Danube Region" (organized in the framework of the SET Plan CEEC 2016 Conference)	30/11/2016	Bratislava, Slovak Republic	Academia, research institutes, representatives of governmental bodies and of regions, EC and the business community	50	EU, Central, East and South-East Europe
193	PowerPoint presentation – abstract accepted for plenary conference presentation	VITO	Policy lessons to mobilize sustainable biomass resources for the biobased economy: conclusions from the projects Biomass Policies, S2Biom and BioTrade2020+	12-15/06/2017	25 th European Biomass Conference & Exhibition, Stockholm, Sweden	Experts, stakeholders, scientists (plenary presentation)	500	EU + international

No	Type of activities*	Main leader*	Title*	Date (dd/mm/yyyy)*	Place*	Type of audience*	Size of audience	Countries addressed*
194	PowerPoint presentation	Imperial College London	Resource Efficient Market Stimulation Policies For Indigenous Biomass Value Chains At EU Member States	12-15/06/2017	25 th European Biomass Conference & Exhibition, Stockholm, Sweden	Experts, stakeholders, scientists (plenary presentation)	500	EU + international

6. Media work (European Commission Scientific Reporting)

S2Biom project activities and results have been regularly communicated to selected media through press releases and news features (Task 10.5). Specific focus in the media work has been placed on the promotion of the S2Biom workshop in Amsterdam, the Netherlands as part of the European Biomass Conference and Exhibition 2016 (Task 10.9). A sub-contract with ETA-Florence (the organiser of EUBCE) has been made for the media promotion package related to S2Biom workshop.

Furthermore, several webinars to demonstrate and explain tools developed in S2Biom project have been organised.

Table 7 (below) provides an overview on S2Biom media work activities according to several “types of activities” specified in the on-line scientific reporting guidelines of the European Commission Research & Innovation Participant Portal.

Type of activities:

- Press releases
- Media briefings
- Interviews

Type of audience:

- Scientific community (higher education, research)
- Industry
- Civil society
- Policy makers
- Medias

Table 8: List of media work activities (*: mandatory fields)

No	Type of activities*	Main leader*	Title*	Date (dd/mm/yyyy)*	Place*	Type of audience*	Size of audience	Countries addressed*
1	Webinar	SYNCOM	Stakeholder validation webinar	24/06/2015	On-line	Stakeholders from industry on conversion pathways	5-10	EU countries
2	Webinar	DLO-FBR and DLO-Alterra	S2Biom: Webinar 1 - computerised toolset testing	11/12/2015	On-line	Stakeholders from all biomass supply chain	30	EU countries
3	Webinar	IIASA	S2Biom webinar 2: Testing BeWhere tool for optimal technology, location and capacity of bio-energy production plants and evaluation	19/02/2016 subsequently downloadable from the S2Biom website	On-line http://www.s2biom.eu/en/10-news-events/28-webinars.html	Researchers	25	EU countries
4	Publication of information about S2Biom workshop in Amsterdam	WIP	S2Biom – Delivery of sustainable supply of non-food biomass to support a resource efficient Bioeconomy in Europe: Outcomes and outlook for the future	21/04/2016	ETA-Florence's Profile on LinkedIn	Researchers, stakeholders of biomass supply chain, potential participants of EUBCE	485 followers	International
5	Publication of information about S2Biom workshop in Amsterdam	WIP	S2Biom workshop	21/04/2016	EUBCE's Profile on Facebook	Researchers, stakeholders of biomass supply chain, potential participants of EUBCE	4987 fans	International
6	Publication of information about S2Biom workshop in Amsterdam	WIP	EUBCE 2016 Workshops: An additional opportunity to learn more about specific biomass and bioenergy related topics	21/04/2016	EUBCE's Profile on Twitter	Researchers, stakeholders of biomass supply chain, potential participants of EUBCE	1156 followers	International
7	Publication of information about S2Biom workshop in Amsterdam	WIP	S2Biom workshop	21/04/2016	EUBCE's Profile on Google Plus	Researchers, stakeholders of biomass supply chain, potential participants of EUBCE	234 followers	International

No	Type of activities*	Main leader*	Title*	Date (dd/mm/yyyy)*	Place*	Type of audience*	Size of audience	Countries addressed*
8	Press release about S2Biom summer school	CERTH	Θερινό Σχολείο S2Biom	21/04/2016	CERTH website http://www.certh.gr/626957DD.el.aspx http://www.certh.gr/37603511.el.aspx	Students, researchers	n/a	Greece
9	Press release about S2Biom summer school	CERTH	Θερινό Σχολείο "Παραγωγή, διαχείριση και αξιοποίηση λιγνοκυτταρινούχας βιομάζας" 17-20/5/2016, ΕΜΠ	21/04/2016	NTUA/School of Chemical Engineering website http://www.chemeng.ntua.gr/the_events/1635/therino_sxoleio_par_agwgi_diaxeirisi_kai_aksiopoiisi_lignokyttari_noyxas_biomazas_17_2052016_emp	Students, researchers	n/a	Greece
10	Press release about S2Biom summer school	CERTH	n/a	21/04/2016	Technical Chamber of Greece (TEE) newsletter #1080 http://portal.tee.gr/portal/page/portal/INFO_TEE/INFO_2016/04_16/Tab/NEWSLETTER20160428.pdf	Engineers, network of the Chamber	n/a	Greece
11	Press release about S2Biom summer school	CERTH	Θερινό Σχολείο για τη Βιομάζα στο Πολυτεχνείο του Μάιο	21/04/2016	econews.gr (electronic media) http://www.econews.gr/2016/04/21/therino-sxoleio-viomaza-129851/	Wide public	236 views	Greece

No	Type of activities*	Main leader*	Title*	Date (dd/mm/yyyy)*	Place*	Type of audience*	Size of audience	Countries addressed*
12	Publication of information about S2Biom workshop in Amsterdam	WIP	EUBCE 2016 Workshops: An additional opportunity to learn more about specific biomass and bioenergy related topics	22/04/2016	EUBCE's Group on LinkedIn	Researchers, stakeholders of biomass supply chain, potential participants of EUBCE	1504 members	International
13	Press release about S2Biom summer school	CERTH	Θερινό σχολείο στο πλαίσιο του έργου S2Biom	28/04/2016	4green.gr (electronic media) http://www.4green.gr/data/fotovoltaika/news/preview_news/109212.asp	Wide public	n/a	Greece
14	Publication of information about S2Biom workshop in Amsterdam	WIP	S2Biom - delivery of sustainable supply of non-food biomass to support a resource-efficient Bioeconomy in Europe: Outcomes and outlook for the future	13/05/2016	CORDIS http://cordis.europa.eu/event/rcn/146197_en.html?WT.mc_id=em ail-Notification	Stakeholders in the Europe, European Commission	n/a	Europe
15	Webinar	BTG	S2Biom webinar 3: Matching Biomass and Conversion Technologies with Bio2Match	15/09/2016 subsequently downloadable from the S2Biom website	On-line http://www.s2biom.eu/en/10-news-events/28-webinars.html	Stakeholders from all biomass supply chain	25	EU countries
16	Press release about the S2Biom workshop and final results	CIRCE	“Jornada para analizar las oportunidades de la agro-biomasa en Aragón”	17/11/2016	Zaragoza, Spain	Civil society, Medias	Unknown	Spain

No	Type of activities*	Main leader*	Title*	Date (dd/mm/yyyy)*	Place*	Type of audience*	Size of audience	Countries addressed*
17	Articles in popular press	CIRCE	Multiple media reports about the S2Biom workshop organized by CIRCE	17-30/11/2016	Multiple National online and printed Media (Heraldo, Expansión, Unizar, coiaanpv.org, asajahuesca, RevistaRETEMA, diario del campo, Red Aragonesa De Desarrollo Rural, etc.)	Civil society, Medias	Unknown	Spain
18	Interview	CIRCE	Interview about S2Biom tools and case study http://www.eleconomista.es/aron/noticias/7996999/11/16/CIRCE-desarrolla-una-herramienta-para-decidir-la-ubicacion-de-las-plantas-de-biomasa.html	30/11/2016	elEconomista.es Zaragoza, Spain	Civil society, Industry, Medias	Unknown	Spain

7. Synergies with other European projects

The S2Biom project established close interactions with other EU projects in the field of sustainable supply of non-food biomass and in support of a resource-efficient bioeconomy in Europe (Task 10.4). Interactions with other projects ensured that overlap between projects is avoided. Means of cooperation included harmonisation of tools and methodologies, exchange of data, information and results, cooperation concerning workshops and conferences, as well as mutual promotion of project activities.

The following means of cooperation with other European projects were foreseen:

- Establishment of informal contact between project coordinators
- Reference to corresponding partners on respective webpages (incl. short project description)
- Information exchange sessions on project meetings and other events with assessment of possible synergies and overlaps
- Exchange of newsletters and other publications

The activities and results with respect to the interaction with other EU projects are summarised in Table 9.

Table 9: Synergies with other European projects – Opportunities for cooperation

No	Synergies with EC projects	Partners involved	Date and Place	Topics discussed/ Cooperation agreed upon	Other Information
1	Biomass Policies (IEE project)	Imperial, DLO, VITO, ECN, a.m.o.	June 2014	Synergies and knowledge transfer were ensured through the partnership	
2	BioTeam (IEE project)	Luke	June 2014	Synergies and knowledge transfer were ensured through the partnership	
3	BASIS (IEE project)	Imperial	January 2015	Synergies and knowledge transfer were ensured through the partnership	
4	BiomassTradeCentres II (IEE project)	SFI	Spring 2014	Logistical components – exchange of information's – WP3 – D 3.1	
5	BioBoost	SYNCOM	March 2014	Information on conversion pathways, modelling and transport logistic model exchanged with WP3 leader Integration of conversion pathways catalytic pyrolysis and hydrothermal carbonisation for intermediate energy carriers proposed to WP 2 leader	
6	PROFORBIOMED (MED program)	SFI	October 2014	Biomass potential estimation – models and tools, wood fuels quality issues, exchange of data – for WP1 and WP3	
7	FOROPA (SEE project) -	SFI	November 2014	Discussion about logistical models and Biomass production chain costs	
8	INFRES	Luke	Spring 2015	Joint methodology development for the assessment of supply costs of forest biomass	

No	Synergies with EC projects	Partners involved	Date and Place	Topics discussed/ Cooperation agreed upon	Other Information
9	Biomass project of JRC	ALU-FR	Spring 2015	Meeting to explore the potential for a cooperation	The cooperation is formalised and mentioned in the Report Maria Lusser JRC-IES H.0g (2016): Bioeconomy Observatory Survey Results, page 2. (Distributed in January 2016)
10	EuroPruning project	CIRCE	2015-2016	Feedback from EuroPruning has partially support S2Biom databases and served for validation of tools. Aragón Region has served as case study to apply the results of S2Biom project. Both projects have collaborated in events organized by Copa-Cogeca	
11	SECTOR project	VTT	Spring 2016	Property information was collected also in SECTOR project	VTT published report including Finnish information: Alakangas, E., Hurskainen, M., Laatikainen-Luntama, J. & Korhonen, J. Properties of indigenous fuels in Finland, VTT Technology 272, 222 p.+ app. 23 p. http://www.vtt.fi/inf/pdf/technology/2016/T272.pdf .
12	BBI JI	Imperial, Clever Consult	March, 2016	Presentation of project at the General Assembly of BIC (Biobased Industries Consortium)	
13	Greengain	SYNCOM	May 2016	Biomass potentials from Landscape conservation	
14	BioEcon	IUNG	June 2016	Joint workshop	
15	BEST programme	VTT	November 2016	Joint workshop	http://clicinnovation.fi/activity/best/
16	Danube – INCO NET	CEI	November 2016	Joint workshop	

8. Guidelines, policy briefs and local language summaries

Concise and well-defined guidelines have been elaborated in close cooperation with other work packages of the S2Biom project in order to facilitate the use and application of all developed databases, tools, roadmaps and strategies by the relevant stakeholders.

The **S2Biom guidelines** (D10.16) provide an overview of research aim and work in the project for the following research topics covered by the S2Biom project:

- Atlas & databases for sustainable biomass cost supply in Europe
- Industrial conversion pathways for lignocellulosic biomass in Europe
- Tools to evaluate promising logistics supply chains at local, regional and pan-European levels that will further inform the elaboration of implementation plans
- S2Biom computerized toolset
- Sustainability
- Economic and regulatory framework for the biobased economy in Europe
- Integrated assessment – optimization of biomass supply chains to satisfy the demand
- Vision, strategies, implementation plans and R&D roadmap

For each of the above mentioned topics the aim of S2Biom research work, key outputs and deliverables, baseline from which the project started and progress beyond the state of the art is described. The report can be downloaded on the S2Biom project website:

http://www.s2biom.eu/images/Publications/D10.16_S2Biom_Guidelines.pdf

Furthermore, dedicated **policy briefs** (D10.17) have been developed to ensure effective dissemination of results to policy makers and decision takers. Policy makers at European, national and regional level are important stakeholders and target users of S2Biom results, as the project intends to provide support for the development and implementation of future policies on sustainable supply of non-food biomass.

The following policy briefs have been elaborated and published:

- “New supply and demand data on biomass use for energy, fuels and organic chemicals in Europe”
- “Vision for 1 billion tonnes of dry lignocellulosic biomass for the biobased economy in 2030”
- “Long term strategies for lignocellulosic biomass in Europe”
- “Market analysis for biobased products”
- “Biomass potentials in the S2Biom project”

Policy briefs can be downloaded from the S2Biom project website:

<http://www.s2biom.eu/en/publications-reports/s2biom.html>

The guidelines and policy briefs have been elaborated by Imperial College London with support of WIP, CEI, SYNCOM, FNR and other S2Biom work package leaders.

To inform relevant policy and industry stakeholders in the target regions about the integrated toolset (the key-result of the S2Biom project), respective national partners have translated the S2Biom leaflet about the toolset (see Figure 6) in national languages (D10.18). Translations are published on the S2Biom website and promoted by local partners among their stakeholder networks.

9. S2Biom conferences

9.1. S2Biom dissemination conferences and workshops

Two dissemination workshops have been planned in the S2Biom project targeting a wider group of stakeholders (feedstock suppliers, industry, private stakeholders, administration, civil society and policy makers) from EU28, Western Balkan, Moldova, Ukraine and Turkey (Task 10.7). These conferences aimed to keep stakeholders up-to-date on progress and results of the S2Biom project as well as to collect feedback from a broad audience. Objectives of the conferences were:

- to provide detailed information about the project, its objectives, methodology and results;
- to raise awareness on the opportunities deriving from project activities and results;
- to mobilise commitment and input from participants to support and improve project activities.

9.1.1. S2Biom Special Session on SDEWES Conference, Ohrid, FYR of Macedonia, 1 July 2014

Special session titled “Sustainable supply and delivery of non - food biomass to support a “resource-efficient” Bioeconomy (S2Biom)” was organised as a side event of 1st South East European Conference on Sustainable Development of Energy, Water and Environment Systems - SEE SDEWES Ohrid 2014. Special session was organised on 1st of July 2014 from 10:30 until 12:30 and had 4 presentations. List of presentations is provided in Table 10.

Table 10: Presentations of the SDEWES special session in Ohrid, 2014

Time	Paper ID	Title of paper	Authors
10:30-11:00	SDEWES.SEE2 014.0177	European wide cost-supply potentials from forestry - methodology and applications	<u>Matthias Dees*</u> , Markus Lindner, Perttu Anttila, Joanne Fitzgerald, Pawan Datta
11:00-11:30	SDEWES.SEE2 014.0089	Optimal Location of Biomass Power Plants for District Heating: the Case of Sisak-Moslavina County	<u>Boris Čosić*</u> , Marko Ban, Luka Perković, Dražen Lončar, Neven Duić
11:30-12:00	SDEWES.SEE2 014.0196	An Approach to More Effective Uses of Forest Biomass for Power Generation in the Balkan Region	<u>Zivko Ilijevski*</u> , Vladimir Koroman, Goran Lukić
12:00-12:30	SDEWES.SEE2 014.0237	Onsite Energy Production with Cogeneration Plants Driven by Reciprocating Gas Engines	<u>Kasım Zor*</u> , Ahmet Teke

9.1.2. Workshop on sustainability issues for the deployment of bioeconomy, Ispra, Italy, 21 November 2014

A workshop with participation of S2Biom project has been organised by JRC in Ispra, Italy on 21 November 2014. The aim of the workshop was to present the adaptation of the EU Environmental Footprint methodology to the specifics of non-food biomass value chains, assessed in the framework of S2Biom project and to present the country analysis profiles, discuss their outputs and integration to the related research of the S2Biom project in terms of policy and strategy formation (Agenda in Figure 7).

08:40-09:00	Delegates check-in & coffee
09:00-09:10	Welcome – Mr. Alessandro Annoni (Head of Digital Earth & Reference Data Unit, JRC-IES) on behalf of Mr. Constantin Ciupagea (Head of Sustainability Assessment Unit /SAU/, JRC-IES) & Mr. Guy Van Den Eede, Adviser for Bio-Economy, JRC Headquarters
09:10-09:25	Food Security, Sustainable Agriculture and Forestry, Marine and Maritime and Inland Water Research and the Bioeconomy – Mr. Daniel Deybe (DG RTD)
09:25-09:40	Bioenergy and Biomass within the Common Agricultural Policy – Mr. Andreas Gumbert (DG AGRI)
09:40-09:55	Biomass, Biofuels, ILUC & Sustainability Assessment – Mr. Remy Demos (DG ENER)
09:55-10:05	Bioeconomy: A view from the stakeholders – Mrs. Calliope Panoutsou (Workshop Co-coordinator, Imperial College – London)
10:05-10:15	Environmental sustainability assessment in the framework of EU Bioeconomy Observatory – Mr. Boyan Kavalov (Workshop Co-coordinator, JRC-IES-SAU)
10:15-10:30	Questions & Answers
10:30-10:50	Coffee break & discussion
10:50-11:00	Environmental sustainability assessment: Bioenergy pillar of Bioeconomy Observatory – Jorge Cristobal Garcia (JRC-IES-SAU)
11:00-11:20	Environmental sustainability assessment: Bio-products pillar of Bioeconomy Observatory – Mrs. Cristina Torres de Matos (JRC-IES-SAU)
11:20-11:40	Environmental sustainability assessment: Food & feed pillar of Bioeconomy Observatory – Mr. Jean-Philippe Aurambout (JRC-IES-SAU)
11:40-12:00	JRC-IES land-use based integrated sustainability assessment (LUISA) platform and applications – Mr. Carlo Lavalle (JRC-IES-SAU), Ms. Claudia Baranzelli (JRC-IES-SAU), Ms. Carolina Perpiña (JRC-IES-SAU)
12:00-12:20	Questions & Answers
12:20-12:30	Closing remarks – Mr. Boyan Kavalov (JRC-IES-SAU) & Mrs. Calliope Panoutsou (Imperial College – London)
12:30-14:00	Adjourn lunch and discussion
14:00 onwards	Depart to airport / train station

Figure 7: Agenda of the workshop in Ispra, November 2014

A briefing on the status of benchmark and gap analysis of criteria and indicators for legislation, regulations and voluntary schemes at international and EU level, and in selected EU Member States and an outlook to consistent cross-sectoral sustainability criteria & indicators, and guidelines for evaluating bioeconomy value chain sustainability performance in the toolset development have been presented.

More information about this workshop, including presentations, is provided in S2Biom website and on the website of JRC in the following links:

<http://www.s2biom.eu/en/10-news-events/27-workshops.html>

<https://biobs.jrc.ec.europa.eu/analysis/jrc-progress-workshop-environmental-sustainability-assessment-november-2014>

9.1.3. S2Biom dissemination workshop in Brussels, Belgium, 16 June 2015

The first S2Biom dissemination workshop has been organised by WIP and took place in Brussels on 16 June 2015 on the occasion of the EUSEW. This workshop gathered more than 40 stakeholders from the whole biomass supply chain. The workshop served to test and validate the toolsets for interactive biomass supply together with the stakeholders. The agenda of the workshop is presented in Figure 8.

Full report of the workshop is published on the S2Biom website.

9:00	Registration	<i>Chair: Luc Pelkmans, VITO, Belgium</i>
9:30	Welcome - The S2Biom project - Introduction LUDGER WENZELIDES, FNR, GERMANY CALLIOPE PANOUTSOU, IMPERIAL COLLEGE, UNITED KINGDOM	
10:00	Modelling and databases BERIEN ELBERSEN, DLO, THE NETHERLANDS	
10:30	Panel discussion on methodological approaches MATTHIAS DEES, ALU-FR UNIVERSITY OF FREIBURG, GERMANY DOUWE VAN DEN BERG, BTG, THE NETHERLANDS BERT ANNEVELINK, DLO, THE NETHERLANDS BERIEN ELBERSEN, DLO, THE NETHERLANDS	
11:30	<i>Coffee break</i>	
12:00	Strategies, R&D roadmaps CALLIOPE PANOUTSOU, IMPERIAL COLLEGE, UNITED KINGDOM	<i>Chair: Rainer Janssen, WIP-Renewable Energies, Germany</i>
12:30	Panel discussion on strategies, R&D roadmaps LEIRE IRIARTE, IINAS, GERMANY LUC PELKMANS, VITO, BELGIUM MARC LONDO, ECN, THE NETHERLANDS CALLIOPE PANOUTSOU, IMPERIAL COLLEGE, UNITED KINGDOM	
13:00	<i>Lunch</i>	
14:00	<i>Parallel Sessions</i>	
	Session 1: Validation and interactive testing PETER CINCIANI, CEI, ITALY, LUDGER WENZELIDES, FNR, GERMANY	
	Session 2: Market review MARC LONDO, ECN, THE NETHERLANDS	
16:30	Summary and conclusions LUDGER WENZELIDES, FNR, GERMANY	

Figure 8: Agenda of the S2Biom dissemination workshop in Brussels

9.1.4. S2Biom workshop on "Vision for the sustainable and resource efficient biomass in Europe", Ispra, Italy, 2 October 2015

The workshop was organized on 2 October 2015 in Ispra, Italy. The aim of the workshop was to present the Vision for sustainable and resource efficient biomass supply in Europe, to discuss details of its main components, to discuss gaps, future steps and integration of the Vision into future policy and strategy documents at EU, Energy Community Secretariat and national levels. Agenda of the workshop is provided in Figure 9.

AGENDA	
<u>Friday, 02 October 2015</u>	
08:40-09:00	<i>Delegates check-in & coffee</i>
09:00-09:10	Welcome – Mr. Constantin Ciupagea (Head of Sustainability Assessment Unit /SAU/, JRC-IES)
09:10-09:25	Presentation DG ENV – Mr. Zoltan Rakonczay
09:25-09:40	Presentation DG AGRI – Ms. Antonia Luetteken
09:40-09:55	Presentation JRC Institute for Energy and Transport (JRC-IET) – Ms. Luisa Marelli, Sustainable Transport Unit
09:55-10:10	Presentation JRC Institute for Prospective Technological Studies (JRC-IPTS) – Ms. Tevecia Ronzon, Agriculture and Life Sciences in the Economy Unit
10:10-10:25	Bioeconomy: A Vision for sustainable & efficient biomass use – Mrs. Calliope Panoutsou (Workshop Co-coordinator, Imperial College – London)
10:25-10:40	Questions & Answers
10:40-11:00	<i>Coffee break & discussion</i>
11:00-11:10	Environmental sustainability assessment in the framework of EU Bioeconomy Observatory – Mr. Boyan Kavalov (Workshop Co-coordinator, JRC-IES-SAU)
11:10-11:40	Environmental sustainability assessment: Update on the Food & Feed, Bio-Products and Bioenergy Pillars – Mr. Jean-Philippe Aurambout, Mrs. Cristina Torres de Matos, Mr. Jorge Cristobal Garcia (JRC-IES-SAU)
11:40-12:10	Update on the visualisation tool, comparative and exemplary LCA analysis, detailed plans for modelling activities
12:10-12:25	Questions & Answers
12:25-12:30	Closing remarks – Mrs. Calliope Panoutsou (Imperial College – London) & Mr. Boyan Kavalov (JRC-IES-SAU)
12:30-14:00	<i>Adjourn lunch and discussion</i>
14:00 onwards	<i>Depart to airport / train station</i>

Figure 9: Agenda of the workshop in Ispra, October 2015

More information about the workshop, including agenda and presentations, is provided in S2Biom and JRC websites:

<http://www.s2biom.eu/en/10-news-events/27-workshops.html>

<https://biobs.jrc.ec.europa.eu/analysis/jrc-progress-workshop-environmental-sustainability-assessment-october-2015>

9.1.5. S2Biom dissemination workshop in Amsterdam, the Netherlands, 9 June 2016

The second S2Biom dissemination workshop has been organized on 9 June 2016 on the occasion of the 24th European Biomass Conference and Exhibition (EUBCE 2016). The workshop gathered 53 participants coming from 21 different countries and provided a platform for discussion and validation of tools developed in S2Biom project. The agenda of the workshop is provided in Figure 10.



S2Biom
WORKSHOP

Delivery of sustainable supply of non-food biomass to support a "resource-efficient" Bioeconomy in Europe

Thursday 9 June 2016 9:00-15:30
RAI Amsterdam Exhibition and Convention Centre





 S2Biom is co-funded by the European Commission in the 7th Framework Programme (Project No. FP7-608622)
www.S2Biom.eu

Workshop in the framework of the 24th European Biomass Conference and Exhibition

Agenda

09:00	Registration
09:20	Welcome to the Workshop RAINER JANSSEN AND ILZE DZENE, WIP RENEWABLE ENERGIES, GERMANY
09:30	The S2Biom project – Introduction LUDGER WENZELIDES, FNR, GERMANY CALLIOPE PANOUTSOU, IMPERIAL COLLEGE, UNITED KINGDOM
10:00	Coffee Break
10:30	Overview of S2BIOM Tool Box IGOR STARITSKY & BERIEN ELBERSEN, DLO, THE NETHERLANDS
11:00	Testing of S2BIOM Tool Box MODERATED BY: IGOR STARITSKY, DLO, THE NETHERLANDS
11:30	Testing of Biomass & Technology Matching Tool TUS LAMMENS, BTG, NETHERLANDS
12:30	Lunch Break
13:30	Testing BeWhere Tool for Optimal Technology, Location and Capacity of Bio-energy Production Plants and Evaluation SYLVAIN LEDUC, IIASA, AUSTRIA
14:15	Testing LocaGISTICS Tool for Biomass Chain Design and Evaluation BERT ANNEVELINK, DLO, THE NETHERLANDS
15:00	Summary and Conclusions LUDGER WENZELIDES, FNR, GERMANY CALLIOPE PANOUTSOU, IMPERIAL COLLEGE, UNITED KINGDOM

Follow other S2Biom presentations at EUBCE 2016

4CP.1.2	C. Panoutsou	Vision for 1 Billion Tonnes Lignocellulosic Biomass in Europe by 2030
4CO.14.1	L. Wenzelides	S2Biom Project: Evidence based Information for the Sustainable Non-food Biomass Supply for the Biobased Economy by 2030 in Europe
4CO.14.4	T. Lammens	A Tool for Optimizing the Match between Lignocellulosic Biomass and Conversion Technologies
4BO.13.2	U. R. Fritsche	Approach to Evaluating Sustainability of Lignocellulosic Biomass Delivery Pathways within the S2BIOM Project
1BO.9.3	B. Annevelink	S2Biom Survey of Logistical Concepts
5AO.9.5	H. Mozaffarian	Lignocellulosic Biomass as Feedstock for Energy, Fuels, Biobased Chemicals and Materials In Europe: An Integrated Assessment on Using Biomass Resources Among Different Demand Sectors
1BV.4.36	M. Dees	A Data Base on Current and Future Sustainable Cost-Supply of Lignocellulosic Biomass in EU, Western-Balkan Neighbour Countries, Turkey and Ukraine - Challenges, Methods, Uncertainties, Results

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Figure 10: Agenda of the S2Biom workshop in Amsterdam

For more information refer to the report about the workshop, which is published on the S2Biom website.

9.1.6. S2Biom dissemination conference in Piran, Slovenia, 16 June 2016

The third S2Biom dissemination conference for the promotion of project results took place on June 16, 2016 in Piran, Slovenia, in the framework of the 2nd South East European Conference on Sustainable Development of Energy, Water and Environment Systems (SDEWES). The conference aimed to keep stakeholders and the scientific community updated on progress and results of the S2Biom project as well as to collect feedback from a broad qualified audience.

The Conference has been tailored as a half-day side event (see agenda in Figure 11) within the 2nd SEE SDEWES Conference in order to reach out to a large audience of experts and practitioners from South-East European Countries.


 Second S2BIOM Dissemination Conference SUSTAINABLE BIOMASS POTENTIALS IN SEE <i>The added value of S2BIOM toolset for untapping sustainable biomass potentials in SEE</i> 16 June 2016, Piran, Slovenia	
INTRODUCTION: THE CONTRIBUTION OF S2BIOM TO UNTAPPING SUSTAINABLE BIOMASS POTENTIALS IN SEE	
13.30-13.40	Welcome and overview of S2BIOM Project <i>Peter Canciani, CEI</i>
13.40-14.00	Sustainable supply of non-food biomass for a resource efficient bio-economy: review of the state-of-the-art <i>Ludger Wenzelides, FNR</i>
14.00-14.20	Sustainable biomass as a driver for green growth in SEE <i>Ilze Dzane, WIP</i>
SESSION 1: OVERVIEW OF THE S2BIOM TOOLBOX	
14.20-14.30	Introduction <i>Ludger Wenzelides, FNR</i>
14.30-14.50	THE VIEWING TOOL Mapping of the biomass availability and cost supply curves <i>Berien Eibersen, DLO-Alterra</i>
14.50-15.10	THE MATCHING TOOL Matching biomass with conversion technologies for energy and bio-based products <i>Igor Stanitsky, DLO-Alterra</i>
15.10-15.30	THE CHAIN DESIGN TOOL Overview of the main logistical components and concepts, and presentation of the LocaGIStics Tool <i>(tbc)</i>
COFFEE BREAK	
16.00-16.20	THE OPTIMISATION TOOL Presentation BeWhere Tool for Optimal Technology, Location and Capacity of Bio-energy Production Plants <i>Sylvain Leduc, IIASA</i>
16.20-16.30	Q&A
SESSION 2: POLICY IMPACT AND CASE STUDIES FROM SEE	
16.30-17.00	Policy database of S2Biom - overview and implications for SEE <i>Ruben Guisson, VITO</i>
17.00-17.15	Case Study Slovenia <i>Nika Krajnc, SFI</i>
17.15-17.30	Case Study Croatia <i>Boris Cosic, SDEWES</i>
17.30-17.45	Case Study Romania <i>Georgiana Birau, ROSENC</i>
17.45-18.00	Discussion & Conclusions <i>Ludger Wenzelides, FNR</i> <i>Peter Canciani, CEI</i>
SESSION 3: TOOLSET VALIDATION	
18.00-19.30	Live testing / toolset validation

Figure 11: Agenda of the S2Biom conference in Piran, Slovenia

Full report of the conference is available on S2Biom project website.

9.1.7. S2Biom national dissemination workshops

In addition to European and International level workshops, two national workshops of S2Biom project have been organized: on 17 November 2016 in Finland and on 30 November 2016 in Spain. The aim of these workshops was to present S2Biom results, in particular the case studies developed in respective countries, as well as to collect the feedback from national stakeholders regarding the outcomes of S2Biom project. More information about national workshops is provided in S2Biom website: <http://www.s2biom.eu/en/10-news-events/27-workshops.html>.

9.2. Final S2Biom conference

The final S2Biom dissemination conference (Task 10.8) took place in Bratislava, Slovakia on 30 November 2016. The workshop was a part of the joint event “Biomass for growth: potentials and challenges of bioenergy in the Danube Region”. The workshop was one of the side events of '[SET Plan – Central European Energy Conference X](#)' and was organized in cooperation between [Danube – INCO.NET](#) and S2Biom projects.

The aim of the workshop was to disseminate the results of the S2Biom project – in particular the integrated toolset, strategies and roadmaps. Agenda of the workshop is provided in Figure 12.

Date	Time	Presentation
30 Wednesday November, 2016	08:30 - 09:00	Registration of participants
	09:00 - 09:15	Welcome, presentation of the Danube-INCO.NET, clustering activities and the S2BIOM project <i>Mr. Alessandro Lombardo, Central European Initiative (CEI), Italy and Mr. Ludger Wenzelides, FNR, Germany</i>
	09:15 - 09:30	The Danube-INCO.NET Pilot action 1 and 2 achieved results and future challenges <i>Mr. Felix Gajdusek, Centre for Social Innovation (ZSI), Austria and Mr. Miklós Gyalai-Korpos, PANNON Pro Innovations, Hungary</i>
	09:30 - 09:45	European programmes supporting biomass <i>Mr. Jürgen Raizner, Steinbeis - Donau - Zentrum, Germany</i>
	09:45 - 10:00	Overview on Danube Region Action Plan for Biomass <i>Ms. Veronika Šíková, European Policies Coordination Department, Office of the Government of the Czech Republic</i>
	10:00 - 10:15	Bioeast Initiative, bioeconomy in the CEE regions <i>Ms. Anikó Juhász, CEO Research Institute of Agricultural Economics of Hungary</i>
	10:15 - 10:30	European Technology and Innovation Platform on Bioenergy <i>Ms. Dina Bacovsky, Bioenergy 2020+</i>
	10:30 - 10:45	Q & A
	10:45 - 11:15	Coffee break
	11:15 - 11:30	Support of bioenergy and advanced biofuel technologies in the Horizon 2020 Work Programme "Secure, Clean and Efficient Energy" <i>Dr. Thomas Schleker, DG Research, European Commission</i>
	11:30 - 11:50	Ligno-cellulosic biomass in the region: data & tools for the assessments <i>Ms. Berien Elbersen, DLO, Netherlands</i>
	11:50 - 12:10	Roadmap for lignocellulosic biomass in the Danube region <i>Ms. Calliope Panoutsou, Imperial College, United Kingdom</i>
	12:10 - 12:30	Case studies in Germany, Poland, Serbia, Slovenia and Ukraine <i>Mr. Ludger Wenzelides, FNR, Germany & Mr. Peter Canciani, CEI, Italy</i>
	12:30 - 13:00	Panel discussion
	13:00 - 14:00	Networking Lunch
	14:00 - 17:00	Bilateral meetings (Matchmaking Session 2) <i>Pre-scheduled face-to-face meetings</i>

Figure 12: Agenda of the S2Biom final conference in Bratislava

The full conference report is available on S2Biom website.

10. Student exchange programme

In the DoW, it was planned to promote cooperation and synergies between S2Biom partners engaged in research activities on sustainable supply of non-food biomass at pan European level, through a limited number of student exchanges (Task 10.9). This student exchange programme was planned to include post-doc and post-graduate student exchange visits from S2Biom research partners with the aim to increase research capacity on biomass costs-supply, conversion technologies and bio-based products, logistics and feedstock delivery chains, value chain sustainability, financial and regulatory frameworks, as well as tool and strategy development in EU28, Western Balkan, Moldova, Ukraine and Turkey.

Due to high University fees, which were not taken into account during the writing of the proposal, the student exchange programme has not been implemented, instead, one week summer school has been organised on 17-20 May 2016.

The 4 days summer school for Master, PhD and Post-doc students as well as for researchers from universities and other research institutions has been organised by S2Biom project. In total around 50 participants attended the summer school which has been hosted by the National Technical University of Athens (NTUA) in Zografou Campus in Athens. Participants were coming from Greece and other European countries.

The summer school has been promoted through several media in Greece (see Table 8 for more information).

The agenda included 6 sessions:

- Sustainable supply of non-food biomass to support a “resource-efficient” Bioeconomy in Europe
- Estimation of biomass availability for lignocellulosic biomass
- Biomass conversion technologies
- Matching the biomass to conversion technologies
- Biomass logistics
- Policies & case studies

At the end of the event students, who attended the complete course, received the certificate of attendance (see Figure 13).

More information about the summer school is published on the S2Biom website (including presentations): <http://www.s2biom.eu/en/10-news-events/29-summer-school.html> and in a dedicated report which can be downloaded under ‘Publications & Reports’ section of the website: <http://www.s2biom.eu/en/publications-reports/s2biom.html>.



Figure 13: Certificate of the attendance of S2Biom summer school in Athens

11. Dissemination after the end of the project

The following main dissemination activities are planned after the project is finished:

- Update and maintenance of the project website for at least two years
- Further publications to be submitted, as indicated in Tables 1 to 5 of the PUDF
- Further presentations on S2Biom results at international conferences and workshops by S2Biom partners
- Exploitation of S2Biom project results in future project applications

Section “B” – Exploitation

1. Registration for patents, trademarks, etc.

Within S2Biom the intellectual property rights, rules on dissemination and use, access rights, liability, confidentiality and indemnification arrangements between the partners are detailed in the Consortium Agreement. The coordinator has been responsible for the monitoring of the intellectual property rights of the research and technology development in S2Biom according to the measures as proposed in the Consortium Agreement.

The following table (Table 11) provides an overview on applications for patents, trademarks according to several “types of IP Rights” specified in the on-line scientific reporting via the European Commission Research & Innovation Participant Portal.

Type of IP Rights:

- Patents
- Trademarks
- Registered designs
- Utility models
- Other

Table 11: List of applications for patents, trademarks, etc. (*: mandatory fields)

Type of IP Rights*	Application reference(s)* (e.g. EP123456)	Intellectual property Organisation*	Subject or title of application*	Confidential * (Yes/No)	Foreseen embargo date (dd/mm/yyyy)	Applicant (s)* (as on the application)	URL of application (mandatory for patents)
Trademark	Planned in 2017	n/a	Trademark of S2Biom tools	No	n/a	S2Biom consortium	n/a

2. Exploitable foreground - Overview

Opportunities of exploitable results generated within S2Biom have been continuously monitored. The following table (Table 12) provides an overview on S2Biom exploitable foreground according to several “types of exploitable foreground” specified in the on-line scientific reporting via the European Commission Research & Innovation Participant Portal.

Type of Exploitable Foreground:

- Commercial exploitation of R&D results
- General advancement of knowledge
- Exploitation of R&D results via standards
- Exploitation of results through EU policies
- Exploitation of results through (social) innovation

The key result of the S2Biom project is the integrated toolset, including particular tools. For the promotion of the toolset, specific leaflet has been elaborated by WIP and translated in several national languages by respective national project partners of the S2Biom. The leaflet will be used also after the end of the project to disseminate the toolset to relevant stakeholders on different occasions.

Project coordinator FNR have been in contact with the Support Service for Exploitation of Research Results (SSERR) to receive support for development of the business plan for eventual commercialisation of S2Biom results and for the organisation of brokerage event.

Table 12: Overview table of exploitable foreground (*: mandatory fields)

No	Type of exploitable foreground*	Exploitable foreground (brief description)*	Confidential * (Yes/No)	Foreseen embargo date (dd/mm/yyyy)	Exploitable product(s) or measure(s)*	Sectors(s) of application*	Timetable for commercial use or any other use*	Patents or other IPR exploitation (licences)*	Owner & Other Beneficiary(s) involved*
1	Exploitation of results through EU policies	Biomass cost-supply tool with the respective databases and datasets	No	-	Biomass potential and cost data geographically referenced, available on up to NUTS 3 level	Policy planning for supporting bioenergy, biofuels and biobased economy	From 2016	No	Public data
2	Exploitation of results through EU policies	Biomass and technology matching tool 'Bio2Match' with the respective databases and datasets	No	-	Database of biomass properties, database of conversion technologies, selection of efficient conversion pathways corresponding to the local biomass	Regional and National policy planning for supporting bioenergy conversion projects	From 2016	No	Public data
3	Exploitation of results through EU policies	Biomass policy tool with the respective databases and datasets	No	-	Database of biomass policies, European good practices	Policy planning for supporting bioenergy, biofuels and biobased economy	From 2016	No	Public data
4	General advancement of knowledge	Biomass logistics and supply chain planning tools – LocaGIStics and BeWhere	No	-	Customer services in building up feedstock supply chains for bioenergy undertakings	Bioenergy, biochemical	From 2016	No	Public data
5	General advancement of knowledge	Biomass potentials and methods to generate them taking into account economic, technical and sustainability issues	No	-	Customer services in building up feedstock supply chains for bioenergy undertakings	Bioenergy, biochemical	From 2015	No	Public data

No	Type of exploitable foreground*	Exploitable foreground (brief description)*	Confidential * (Yes/No)	Foreseen embargo date (dd/mm/yyyy)	Exploitable product(s) or measure(s)*	Sectors(s) of application*	Timetable for commercial use or any other use*	Patents or other IPR exploitation (licences)*	Owner & Other Beneficiary(s) involved*
6	General advancement of knowledge	Results of case study about SRC on unused agricultural lands in Croatia	No	-	Results can be used as a first step for preparation of energy projects in order to determine location and quantities of biomass in regions	Energy sector as well as for production of fuels and chemicals from biomass	From 2015	No	SDEWES
7	General advancement of knowledge	Results of case study on biofuel production in Northern Germany and East Poland	No	-	Results are used to attract potential investors to invest in biofuel production	Fuel and chemical industry	From 2015	No	SYNCOM, IUNG
8	General advancement of knowledge	Results of case study on development of biomass supply chains in West region, Romania	No	-	Results are used to attract potential investors to invest in new biomass value chains	Energy production	From 2015	No	ROSENC
9	General advancement of knowledge	Results of case study on lignocellulosic ethanol plant in Serbia	No	-	Results can be considered as a pre-feasibility study for potential investors in lignocellulosic biomass in the region and beyond	Fuel production	From 2015	No	Faculty of Technical Sciences, Novi Sad
10	General advancement of knowledge	Results of case study on district heating on woodchips in Slovenia	No	-	Results can be used as a case study for other local communities that have opportunities to build district heating system	Forestry industry, energy sector, private/public sector	From 2015	No	SFI

No	Type of exploitable foreground*	Exploitable foreground (brief description)*	Confidential * (Yes/No)	Foreseen embargo date (dd/mm/yyyy)	Exploitable product(s) or measure(s)*	Sectors(s) of application*	Timetable for commercial use or any other use*	Patents or other IPR exploitation (licences)*	Owner & Other Beneficiary(s) involved*
11	General advancement of knowledge	Results of case study on lignocellulosic feedstock potential, conversion pathways and recommendations for biomass market in Ukraine	No	-	Results can assist in identification and implementation of the most efficient bioenergy projects	Agriculture, forestry, food industry	From 2015	No	Renewable Energy Agency (Ukraine)
12	General advancement of knowledge	Results of the case study concerning biomass co-firing in lignite-fired power plants as a means of mobilizing agro-biomass resources	No	-	Results can be used to: a) draft new energy & agricultural policies related to biomass co-firing, b) convince utilities and plant operators to invest in biomass co-firing.	Power sector, in particular lignite-fired power plants Agricultural sector	From 2015	No	CERTH
13	General advancement of knowledge	Results of logistical case study in Burgundy, France	No	-	Results of the case study in Burgundy can be used to develop new or improved technologies for all steps of the logistics chains for biomass supply from energy crops, and to assess their sustainability for small to large-scale bio-based projects.	Energy sector and stakeholders of the bio-based economy	From 2015	No	DLO, INRA, IIASA

No	Type of exploitable foreground*	Exploitable foreground (brief description)*	Confidential * (Yes/No)	Foreseen embargo date (dd/mm/yyyy)	Exploitable product(s) or measure(s)*	Sectors(s) of application*	Timetable for commercial use or any other use*	Patents or other IPR exploitation (licences)*	Owner & Other Beneficiary(s) involved*
14	General advancement of knowledge	Results of logistical case study in Aragon, Spain	No	-	Results of the case study can be used to explore the potential role of biomass resources for energy generation in a particular region.	Energy production	From 2015	No	DLO, CIRCE
15	General advancement of knowledge	Results of logistical case study in Central Finland	No	-	Results of the case study can be used to analyse in depth the effect of different logistical concepts on, e.g., transport costs, transported volumes and the utilization rate of capacity.	Forestry industry, transportation and logistics companies	From 2015	No	DLO, VTT, Luke

3. Explanations on exploitable foreground

3.1. Biomass cost-supply tool, the respective databases and datasets

3.1.1. Explanation and purpose

Biomass supply viewer tool enables to make selections of biomass types for which data can be displayed in a map in relation to amount of biomass available per year and potential type combination. Comprehensive biomass cost supply data across 50 lignocellulosic feedstock types from forestry, agriculture and wastes for 37 countries at NUTS2 & NUTS3 geographic disaggregation levels is provided.

3.1.2. Exploitation strategy

The tool will be promoted through S2Biom project website and by specifically developed leaflet. The leaflet is targeted to the potential users of the tool: researchers, policy makers, regional and development planners, investors and biomass project developers. It is listing simple, easy to understand core questions on which the tool is able to respond. Further exploitation strategy for the biomass cost-supply tool is planned to be developed with the help of SSERR.

3.1.3. IPR measures taken or intended

No patent application is planned.

3.1.4. Further research necessary

It is necessary to ensure the future updates of the databases after the end of the project and to provide continuous support service for users of the tool.

3.1.5. Potential/expected impact of exploitation

Information contained in the tool should provide better overview of biomass types, potentials, costs and their distribution among countries and regions. This will enable better policy planning and decision making concerning the development of non-food lignocellulosic biomass use on national and regional levels. Moreover, the tool covers data for Western Balkans, Moldova, Turkey and Ukraine which were not available before (at least not on such a resolution as provided by the S2Biom).

3.2. Biomass and technology matching tool ‘Bio2Match’, the respective databases and datasets

3.2.1. Explanation and purpose

‘Bio2Match’ tool guides the user in an interactive and attractive manner to the optimal match between biomass resources and conversion technologies. Each conversion technology has specific biomass input requirements, while the composition and characteristics of biomass at roadside varies widely. Some biomass types can be used in many different technology options, while others are hard to process or will need extensive pre-treatment. The matching tool uses extensive information from the S2Biom databases to show the user which types of biomass can be processed by which technologies to certain end-products, and thereby helps the user to find an optimal supply chain. The tool contains: conversion technology database describing the characteristics of 50 key biomass conversion technologies in detail and biomass characteristics database describing the characteristics of 50 key lignocellulosic biomass types in detail.

3.2.2. Exploitation strategy

The tool will be promoted through S2Biom project website and by specifically developed leaflet. The leaflet is targeted to the potential users of the tool: researchers, policy makers, regional and development planners, investors and biomass project developers. It is listing simple, easy to understand core questions on which the tool is able to respond. Further exploitation strategy for the ‘Bio2Match’ tool is planned to be developed with the help of SSERR.

3.2.3. IPR measures taken or intended

No patent application is planned.

3.2.4. Further research necessary

It is necessary to ensure the future updates of the biomass properties and conversion technologies databases after the end of the project and to provide continuous support service for users of the tool.

3.2.5. Potential/expected impact of exploitation

The tool allows for an optimized exploitation of existing feedstock sources across borders and frontiers as well as allowing local communities to identify domestic sustainable feedstocks.

3.3. Biomass policy tool, the respective databases and datasets

3.3.1. Explanation and purpose

S2Biom policy tool is a catalogue of policy instruments and measures and contains information on the regulatory and financial frameworks impacting bioeconomy development throughout Europe.

For each policy measure or instrument, information is provided on a set of descriptive criteria. These are displayed in the form of factsheets. The database includes information of more than 660 policy measures and instruments applied on European, national and regional levels.

3.3.2. Exploitation strategy

The tool will be promoted through S2Biom project website and by specifically developed leaflet. The leaflet is targeted to the potential users of the tool: researchers, policy makers, regional and development planners, investors and biomass project developers. It is listing simple, easy to understand core questions on which the tool is able to respond. Further exploitation strategy for the biomass policy tool is planned to be developed with the help of SSERR.

3.3.3. IPR measures taken or intended

No patent application is planned.

3.3.4. Further research necessary

It is necessary to ensure the future updates of the database of policy instruments and measures after the end of the project and to provide continuous support service for users of the tool.

3.3.5. Potential/expected impact of exploitation

The tool is very useful for policy makers – especially in countries with less supportive legislative framework for lignocellulosic biomass and biobased economy. The tool can be used to identify best practices and to get detailed information in form of the factsheets.

3.4. Biomass logistics and supply chain planning tools

3.4.1. Explanation and purpose

Two biomass logistics and supply chain planning tools have been advanced during the S2Biom project, creating additional application and validation opportunities.

'BeWhere' tool supports the development of EU-wide and national strategies to develop an optimal network of biomass delivery chains. 'BeWhere' provides as output a network of existing and suggestions for new to be developed biomass conversion chains according to optimal selection of technologies, their location and capacity, the costs of each segment of the supply chain, the total bio-energy and biomaterial demand, and avoided emissions at different geographical levels.

'LocaGIStics' tool supports the user to design optimal biomass delivery chains, particularly taking account of different logistical organisations of the chain at regional level and analyse in a comparative way the spatial implications and the environmental and economic performance. It takes account of the biomass cost-supply, the conversion and pre-treatment technology options and novel logistical concepts of biomass hubs and yards. For environmental impacts it considers the overall sustainability performance for bioeconomy value chains. 'LocaGIStics' provides support for refining the 'BeWhere' solution while reaching optimal economic and environmental performance per installation and full biomass delivery chain.

3.4.2. Exploitation strategy

Both tools will be promoted through S2Biom project website and by specifically developed leaflet. The leaflet is targeted to the potential users of the tools: researchers, policy makers, regional and development planners, investors and biomass project developers. Further exploitation strategy for the tools is planned to be developed with the help of SSERR.

3.4.3. IPR measures taken or intended

No patent application is planned.

3.4.4. Further research necessary

It is necessary to feed the tools with regional data of more countries and regions (currently data on regional level are available only for selected case studies).

3.4.5. Potential/expected impact of exploitation

The tool can be used for the planning of biomass supply chains. However, its application is limited, since specific skills and additional data are required to transfer the source code of the tool to other regions which were not covered so far.

3.5. Biomass potentials and methods to generate them

3.5.1. Explanation and purpose

Biomass potentials and methods to generate them taking into account economic, technical and sustainability issues have been developed in S2Biom project.

3.5.2. Exploitation strategy

S2Biom project partners can use this information to further develop their services in the market. For example, lectures on several issues covered in the project (from policies, biomass supply, demand, logistics, conversion technologies, full chain assessment, strategies for biomass mobilization, policy support etc.) can be given. In addition the knowledge gathered in the S2Biom project will be used for writing a book (already in the progress), published by Elsevier.

3.5.3. IPR measures taken or intended

No patent application is planned.

3.5.4. Further research necessary

Further research is required following a bottom up approach to validate statistics at local, regional level and work on detailed cost supply assessments for each feedstock type following a system approach for the complete value chains.

3.5.5. Potential/expected impact of exploitation

A book summarizing state of the art information and knowledge on modelling supply and logistics for non-food lignocellulosic biomass supply chains for biobased economy in Europe will be published.

S2Biom partners will be able to extend their services based on the gained knowledge and experience. All partners have gained insight and access to biomass potential data in EU-28, Western Balkans, Moldova, Ukraine and Turkey as well as to the state of the art in modelling biomass supply which was not available before. These data combined with existing own knowledge of building up biomass supply chains for bioenergy and biochemistry applications has resulted in a substantial expansion of this key business area. Several new research, development and commercial contracts were acquired by the project partners. Activities are ongoing.

3.6. Results of S2Biom case study in Croatia

3.6.1. Explanation and purpose

The case study performed by SDEWES Centre aimed at investigation of the unused agricultural land potential in Croatia for cultivation of energy crops. The energy crop used in case study was compared to data generated in S2Biom project. Furthermore, best available technologies for biomass utilisation have been analysed and selected by using model developed in the S2Biom project. The main purpose of the study was to assess the biomass potential from unused agricultural land, to calculate biomass cost from energy crops in Croatia and to determine cost of biomass at the selected locations in Croatia. Analysis of different level of land utilisation for energy crops production and for production of different fruits in Croatia has been assessed as well.

Results of study showed that Croatia have high potential for production of biomass from energy crops and by using this biomass several energy projects can be finalised due to increase in biomass supply. Analyses conducted in study showed that transportation costs have small influence on the total cost of biomass while the main influence have cost of cultivation for energy crops. In addition, the impact of the feedstock costs on energy production in combined heat and power plants have been evaluated.

3.6.2. Exploitation strategy

Obtained data and calculated results are first step in analysis of the biomass utilisation in Croatia. Results will be used for development of model for sustainable and economic viable utilisation of biomass in Croatia which is at the moment in development phase.

3.6.3. IPR measures taken or intended

No patent application is planned.

3.6.4. Further research necessary

Further research is needed to analyze land type which can be used for growing different energy crops as well as for analysis of possible pathways for utilization of this biomass, especially for materials production.

3.6.5. Potential/expected impact of exploitation

The future application can be targeted to energy companies which have applied for construction of the energy projects and at the moment does not have enough biomass for the selected project. Furthermore, calculated results can be used by oil companies for preparation of large scale projects for production of biofuels.

3.7. Results of S2Biom Germany-Poland case study

3.7.1. Explanation and purpose

The case study performed by SYNCOM and IUNG aimed at investigation of the value chain of synthetic Biofuel production from wood and agricultural residues in Northern Germany and Eastern Poland. The biomass potential of the regions had been determined and compared with the biomass supply data generated in S2Biom. The data were used to feed a value chain model developed earlier. The study focused on regionally split production pathways with regional rather small to medium scale pre-treatment plant producing an intermediate energy carrier which can be easily transported to new or existing facilities for upgrading to transportation fuel. This approach was studied on economic and logistic, properties, including fuel production cost and distribution of added value.

3.7.2. Exploitation strategy

The experience and developed model will be further used to develop studies for other biomass value chains, including other conversion technologies.

3.7.3. IPR measures taken or intended

No patent application is planned.

3.7.4. Further research necessary

Application of developed methodology and model to other technologies and biomass types can be done.

3.7.5. Potential/expected impact of exploitation

The future applications can be targeted to industry and investment companies with an interest in biofuel production.

3.8. Results of S2Biom case study in Romania

3.8.1. Explanation and purpose

The case study performed by ROSENC focused on the assessment of most promising types of biomass in the Western Region of Romania:

- primary and secondary agricultural residues (straw of cereal crops, residues of maize and sunflower production)
- wood biomass (felling residues, wood waste, firewood); and
- energy crops (willow, Miscanthus, poplar).

The assessment was based on statistical data provided by Romania's State Statistics Service, the previous studies, and on some basic assumptions regarding availability of certain types of biomass for energy. Among others, the assumptions include information on how much crop residues may be taken from the field without harm to crop sector and animal husbandry, how much currently unused land may be used for growing energy crops without competition with food production, how much wood biomass can be used without affecting the forests. For each type of biomass the existing barriers to access the energy market were analyzed and economic, technical and logistics measures were suggested, in order to provide effective mobilization and delivery of biomass at the local and regional level.

3.8.2. Exploitation strategy

The experience and results of strategic case study will be further used to develop a tool that will provide the interested actors amongst the value chain clear information about the particular region.

3.8.3. IPR measures taken or intended

No patent application is planned.

3.8.4. Further research necessary

Further research will focus on measuring detailed mapping and will look how it can improve management of value chains, in order to optimise the development of the biomass sector.

3.8.5. Potential/expected impact of exploitation

The results of the case study can be used by industry and investment companies with an interest in development of biomass value chains (production, distribution, etc).

3.9. Results of S2Biom case study in Serbia

3.9.1. Explanation and purpose

Case study implemented in Serbia gave explicit evaluation of lignocellulosic biomass technologies and utilization of crop residues as feedstock. Procurement of feedstock, including plant gate logistic, has been performed, whereby road and water (Danube) transport has been compared. The results have been presented at two conferences, and one article, related to logistic, is in final preparatory phase.

3.9.2. Exploitation strategy

This study can be used by potential lignocellulosic biomass producers, but the same approach is applicable as well for other crop residues. For instance, when using crop residues as co-substrate for biogas and biomethane production.

3.9.3. IPR measures taken or intended

No patent application is planned.

3.9.4. Further research necessary

In the case of lignocellulosic biomass based on corn stover, it is expected to investigate further options for harvest, storage and logistic, as well as security of supply. Deeper analysis using LCA methodology for production of crops is needed. Issues related to preservation of soil fertility should be further elaborated.

3.9.5. Potential/expected impact of exploitation

It is expected that results will be used for utilization of other types of crop residues as a feedstock, including using them for bioplastic manufacturing.

3.10. Results of S2Biom case study in Slovenia

3.10.1. Explanation and purpose

Town Maribor was selected as pilot project area since there was a concrete idea of switching and upgrading of existing district heating system on heating oil to wood biomass heating system. The project has high political support (from Ministry of environment of the Republic of Slovenia) since it should be a case study for promotion of modern district heating systems and has also known investor (Energy company from Maribor – Energetika Maribor).

The main aim of the study was to develop a model for estimation of available potentials of wood biomass and a computer model for simulation of transport costs was prepared. The model was created as an investment tool, where we are interested in transport costs at a selected location for a predetermined amount of feedstock. At the same time the model allows the evaluation of the different locations and chooses (one or more) the best option in terms of minimum transport costs. By saying model we mean a computer algorithm, which is predetermined by the type and sequence of operations in the analyses process.

3.10.2. Exploitation strategy

The methodology will be further used and supported by ministry of environment which wishes to determine priority areas for promotion of wood based district heating systems. The case study of Maribor was already presented and discussed at Ministry for environment and also at some national workshops.

3.10.3. IPR measures taken or intended

No patent application is planned.

3.10.4. Further research necessary

Further research includes application of developed methodology and model to other technologies and biomass types. More emphasis can be given to economical evaluation of predicted local production chains.

3.10.5. Potential/expected impact of exploitation

The results can be used by other local communities (that would like to support development of district heating systems, by investors who have an idea where they want to build DHS but they need more information on wood biomass supply part.

3.11. Results of S2Biom case study in Ukraine

3.11.1. Explanation and purpose

The case study performed by REA aimed at investigation of sustainable potential of lignocellulosic feedstock in Ukraine. The biomass potential was assessed at the regional level. The case study also included analysis of food industry residues as a ready-to-implement resource with minimized logistic requirements and increased economic sustainability. The obtained results were used for selection of perspective conversion pathways for lignocellulosic biomass and organic residues for energy production. The study also covered analysis of the related regulatory frameworks and cost assessment for the production of some solid biofuels.

3.11.2. Exploitation strategy

The results will be used for identification of the most effective bioenergy projects in different sectors of economy with the purpose of conversion from fossil fuels to biomass.

3.11.3. IPR measures taken or intended

No patent application is planned.

3.11.4. Further research necessary

Further research is necessary for the development and use of bailing technology for maize and sunflower stalks.

3.11.5. Potential/expected impact of exploitation

The results can be used by bioenergy project developers, consulting companies, potential investors for identification and implementation of feasible bioenergy projects. The results can also be used by national authorities to pursue efficient bioenergy policy.

3.12. Results of S2Biom case study of biomass co-firing in lignite-fired power plants

3.12.1. Explanation and purpose

The case study performed by CERTH aimed at investigation of agro-biomass co-firing at the lignite-fired power plants of South Eastern Europe (SEE).

The lignite sector is a major contributor to the electricity supply of several SEE countries and is expected to remain so in the future. Biomass co-firing is a technologically mature solution for power generation from biomass, which can be implemented in a short time and with much lower investment cost compared to stand-alone biomass power plant. Additionally, the particular fuel characteristics and design features of lignite-fired power plants make them suitable for the combustion of agrobiomass, which is a fuel mostly avoided in power generation. The main issue with implementing co-firing at such power plants is the sourcing of large amounts of biomass and the organization of the supply chains.

The case study investigated the lignite sector of several SEE countries and compared the potential of lignite-fired power plants to absorb agro-biomass with the biomass supply data generated from S2Biom. Additionally, starting from the roadside cost of biomass calculated by S2Biom and a simplified supply chain model, the biomass plant-gate cost was estimated and compared with the lignite one. An economic model was also used to estimate the financial support (as a feed-in premium) required for implementing co-firing at such power plants.

3.12.2. Exploitation strategy

Some case study results (mostly related to Greece) have already been presented to a specialized technical audience during the 6th Workshop on Cofiring Biomass with Coal organized by IEA Clean Coal Centre (Carbonia, Italy, 14-15 September 2016). CERTH intends to document the main findings of the case study in a specialized publication (paper, monography or other) which can then be used as a reference document by the power sector, policy makers, academia, etc.

3.12.3. IPR measures taken or intended

No patent application is planned.

3.12.4. Further research necessary

The developed case study focuses on the strategic aspects of agrobiomass co-firing in the SEE countries. As a result, it is based on several assumptions, which can be further refined in a more focused study, targeting a particular power plant or plants. In particular, this would require improving the logistic components of the supply chains, e.g. by providing more accurate, country-specific transport costs, or considering alternate means of transport (trains, barges, etc.), where available. The local spatial availability of resources and the optimization

of the supply chains for selected power plants can also be studied with the help of the LocaGIStics tool. Finally, the calculation of GHG emissions for selected supply chains can be performed in order to compare them with mandatory or voluntary EU sustainability criteria.

3.12.5. Potential/expected impact of exploitation

The results of the case study can be used by the following stakeholders:

- National or regional policy makers for the energy sector. The study can provide them a better understanding of the potential and advantages of biomass co-firing in the goal of reaching RES targets for the electricity sector.
- Utilities, in particular lignite-fired power plants operators, which are interested in converting their units to biomass co-firing. The study can provided them an initial indication of available resources and cost structure of the fuel supply chain.
- Planners in the agricultural sector interested in linking agricultural by-products to the energy sector. The study can provide them with a better understanding of the cost advantages of agro-biomass as a fuel source for large-scale power generation.

3.13. Results of S2Biom logistical case study in Burgundy, France

3.13.1. Explanation and purpose

The logistical case study in Burgundy was the first logistical case study that was performed within the S2Biom project. The data were based on the results of the LogistEC project, which had already performed a thorough assessment of the case. It encompassed all types of lignocellulosic crops: annual and pluri-annual crops, perennial grasses, and short rotation coppice, and included pilot- to industrial-scale demonstrations. One of them involved the case-study based on the Bourgogne Pellets cooperative, which develops Miscanthus in Burgundy (eastern France), and which has been further evaluated in S2Biom case study using some of the S2Biom tools, in particular LocaGIStics. Therefore, the S2Biom case study was especially used to develop the new tool LocaGIStics, and to illustrate the possibilities of such a new logistical tool in combination with an existing tool, the BeWhere model.

3.13.2. Exploitation strategy

The results of the case study will be used for supporting the exploitation of the S2Biom tools LocaGIStics and BeWhere. The example serves as demonstration material of the abilities of both tools and using them in the combination with each other.

3.13.3. IPR measures taken or intended

No patent application is planned.

3.13.4. Further research necessary

Application of the methodology developed for the Burgundy case study to other cases or particular business cases is necessary.

3.13.5. Potential/expected impact of exploitation

The results can be used to further assess the real life case or to advise an actual company for taking decisions on their biomass supply chain.

3.14. Results of S2Biom logistical case study in Aragon, Spain

3.14.1. Explanation and purpose

Within this case study, CIRCE and WUR-FBR have made use of LocaGIStics for determining the feedstock potential and the supply cost of biomass at plant gate considering three power plants located in the Aragon region together and separately. In first place, available potential of different agricultural residues has been obtained in order to select main feedstock options. Finally, the case study has been focused on two main biomass types: straw and stalk from annual crops (winter cereals, summer cereals and sunflower) and wood from olive, fruit and vineyard plantations removal, both – above ground and underground biomass. Then, for each feedstock option, different supply chains have been defined.

Based on the defined supply chains, some scenarios were analysed by LocaGIStics for the two feedstock options in terms of the number of power plants and their sites, the biomass availability, the total demand per plant and the presence of collection points.

3.14.2. Exploitation strategy

The results of the case study will be used for demonstration of how the S2Biom tool LocaGIStics can be used.

3.14.3. IPR measures taken or intended

No patent application is planned.

3.14.4. Further research necessary

In future the methodology of Aragon case study can be tested on other real life cases with similar intention – to optimize local biomass supply chains.

3.14.5. Potential/expected impact of exploitation

The results can be used to analyse similar cases and to improve the management of straw and stalk supply chains in the particular case of Aragon.

3.15. Results of S2Biom logistical case study in Central Finland

3.15.1. Explanation and purpose

The logistical case study in Finland tried to find cost-efficient operation models in timber transport logistics by trucks in a present case environment in Central Finland. As an objective of the study, the influence of a multi-assortment load method was studied and compared to a single-assortment load method. In the single-assortment load method only one timber assortment can be transported during one transport cycle whereas in the multi-assortment load method different timber assortments can be transported in the same load.

Discrete-event simulation was used for studying the timber truck transports for the Finnish case.

3.15.2. Exploitation strategy

The results of the case study will be used to increase the efficiency of timber logistics in Finland and the applied methodology can be exported as good practice example to other Northern countries with similar climate conditions.

3.15.3. IPR measures taken or intended

No patent application is planned.

3.15.4. Further research necessary

Further research is needed to extend the model to other geographical regions.

3.15.5. Potential/expected impact of exploitation

In Finland and other North European regions the operating environment in timber transports by trucks is very challenging. Difficulties in logistics are caused by the high number of timber assortments and end use facilities, as well as high fluctuation in road trafficability, in the weather affecting bearing capacity of roads and in the timber demand of mills.

Forest industry together with logistics companies and timber truck entrepreneurs has eagerly searched for the solutions for improving timber transport efficiency. The results of this case study can be used by forestry logistics companies to increase the efficiency (both in terms of reduced costs and increased availability) of the forest wood mobilisation in future.