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InnProBio: the training sessions

InnProBio envisages the establishment of a public procurement community on bio-based products and services (BBPS) and innovative solutions related to BBPS. InnProBio aspires in providing the relevant tools to procurement practitioners for integrating BBPS into their innovation and green procurement strategy and in creating buying groups to share best practice and to leverage purchasing power.

If society wants contracting authorities to procure BBPS, these authorities need to be aware of the possibilities and advantages of BBPS. Showing inspiring examples from other procurers will support this message. To create *awareness* about procurement of BBPS a two-hour workshop will suffice, this workshop will most likely be part of a larger event.¹ This report focusses on half- or one-day training sessions where detailed information on all aspects of BBPS can be discussed.

In order to be able to procure BBPS, contracting authorities need to know how to set up a procurement strategy that gives BBPS a fair chance. They need to know how to find information, what the legal possibilities are, what the different procurement procedures are and how to write functional specifications and criteria. A training session should cover these items. To strengthen the impact of the training session it is recommended to set up a network or community of practice.

This reports gives in a chronological order reports of the training sessions that were held by the InnProBio consortium in the different countries where the developed formats for a training session where tested. The document contains a report from a cancelled training session in Germany and reports from training sessions held in

- Germany (April 2017),
- Poland (March 2017, September 2017, January 2018 and February 2018)
- the Netherlands (October 2017)

The feedback from the sessions was used to improve new training sessions and the formats for these training sessions. The formats can be found on the InnProBio website.

¹ For a workshop, please look at the website <http://www.biobasedinprocurement.eu/>

1. Training session in Germany, Berlin

The first training session was planned to be held in Berlin (Germany) on 3 November 2016. Due to an insufficient number of registrations, the session was postponed. The reasons for the low number of registrations were investigated in detail and yielded valuable input for conceptualising future training sessions. Conclusions and recommendations from the investigation are presented in the last paragraph of this chapter.

1.1. PREPARATION

1.1.1. Originally planned German training session

The German training session was planned to be held in Berlin on 3 November 2016. It was organised by FNR. The training session was going to be combined with a market dialogue on public procurement of bio-based computer related devices. Both the market dialogue and the training session were planned as a side event to a major national event of FNR on Procurement of renewable raw-materials: Creating public procurement fit for the future.

Due to a lack of registrations for the market dialogue and training session both sessions were postponed. This decision was taken three weeks prior to the event date. The following possible reasons for the lack of registrations were identified by FNR after phone calls with several of the invited persons:

- Other similar events took place just before this event (e.g. in Munich and Berlin);
- There are too many other events competing with the limited time of procurement professionals;
- Most procurement professionals interested in BBPS procurement live and work in the western part of Germany; they were not very keen to travel to Berlin (600km) for a one-day activity.
 - The next time this will be organised in the western part of Germany

Other reasons might be

- Bio-based procurement is not (yet) a priority for most procurement professionals
 - Early and more intense effort should be put into inviting and persuading procurement professionals personally
- The subject for the market dialogue was very specific, by combining the market dialogue with the training session; only people interested in this specific topic might have registered.
 - If it is wise to combine a training session and a market dialogue (on a narrow topic) will be further investigated.

There were also some practical issues that may have interfered:

- Since it was a side-event, it turned out not to be very visible on the homepage of the main event;
- Focus may have been too much on the market dialogue and less on the training session;
- Registration for the side-event was cumbersome.

1.1.2. Programme

For the Berlin training session, a programme was set up that would use material collected in the InnProBio Toolbox. It should be mentioned that the approach for the Berlin training session was different than the approach to the future training sessions. The project's first review meeting was to be held a day after the event, thus all the InnProBio consortium members were present and could be engaged as lecturers. All partners could have contributed to presentation which reflects their respective field of work.

Table_1: Preliminary programme training session Bio-based Procurement in Germany

Time indication	Subject	Objective	Who	How
15 minutes	Martin Behrens (FNR)	Welcome and introductions	Participants understand the goal of the training session. Participants articulate their own (learning) objectives and organisational strategy "need" for bio-based	Interactive: questions and answers. Write down the objectives and "needs" on flip over
Module 1		Bio-based		
15 minutes	Lara Dammer (nova Institute)	Introduction to BBPS and procurement of BBPS	Participants understand what BBPS is and understand broadly the relations with circular and green procurement. Participants can name arguments why to choose bio-based in procurement.	Watch short movie on bio-based procurement. Discuss what the group has learned. What lacks from the movie add in presentation.
15 minutes	Lara Dammer (nova Institute)	BBPS	Participants know basics on different BBPS. Know the main pros and cons and understand the challenges and long term advantages. Understand that there are (limited) standards.	Presentation with product examples. Q&A.

Break 10 minutes				
Module 2		Procurement Strategy		
15 minutes	Carla Dekker (PIANOo)	Assignment	What risks and hurdles do you / your organisation expect when buying BBPS? And how to handle these?	Group assignment
15 minutes	Participants	Feedback	Participants summarise risks and hurdles and how to handle these.	Flip overs
Module 3		Preparation procurement process		
15 minutes	ICLEI	Preparation procurement process	Participants, needs analysis, market knowledge, BBPS databases	Exchange of experiences,
15 minutes	Martin Behrens (FNR)	Databases and other tools	Participants receive information of possible ways to find bio-based products	Show BBPS websites and databases
15 minutes	John Vos (BTG)	Databases and other tools	Participants receive information of the different traits of bio-based products and how to procure them	Presentation of InnProBio factsheets and (future) InnProBio "decision support tool"
10 minutes	Anna Gorczyńska (ULodz)	Interaction with market	Focus on legal aspects of market dialogue and market consultation	Presentation of the legal aspects regarding market dialogue and market consultation

15minutes	Anna Gorczynska (ULodz)	Functional specs criteria, sustainability criteria and contract	Participants receive practical guidelines how to put bio-based in tender documents	Presentation Hand-outs with examples and text blocks
10-15 minutes per case including discussion	Carla Dekker (PIANOo), Martin Behrens (FNR)	1-2 inspiring practices	Participants understand how others have bought bio-based. Since procurement of BBPS is different for every subject, the best way to approach it is by learning from real cases.	Presentations from different organisations: - Approach - Criteria used - Tips and tricks - Discussion
Break				
Module 4	Tender documents			
5-10 minutes	Martin Behrens (FNR)	TCO	Participants receive practical guidelines how to put bio-based in tender documents	Presentation Hand-outs with examples and text blocks
5-10 minutes	Okke-Jaap Prent (NEN)	Standards	Participants receive practical guidelines how to put bio-based in tender documents	Presentation Hand-outs with examples and text blocks
20-30 minutes	Participants	Group assignment: Prepare a bio-based procurement	Participants describe the steps to set up a bio-based procurement. Participants use practical guidelines to write "bio-based specs and criteria" in tender documents	Group assignment: Summarise approach to procure bio-based. Write specs and criteria for a BBPS procurement

12 minutes	Participants	Feedback	Participants present their group assignment	
15 minutes	Martin Behrens (FNR)	Wrap Up	Participants give feedback on how to improve the training session. Trainer summarises what additional information will be distributed after the session. Trainer asks for interest in forming Community of Practice or buyers groups	Round table

1.2. RECOMMENDATIONS

1.2.1. For a training session in Germany

The reasons mentioned in paragraph 2.1.1. are taken into account regarding the planning of the next market dialogue and training session. The postponed event was going to take place in Bonn (Germany) in April 2017 and it was organised jointly with the Competence Centre for Sustainable Procurement.

1.2.2. For future training sessions

Organising a training session as a side event may require additional dedicated invitations to your target group, since the general communication may not be targeting the participants you need. Additionally, taking into account that bio-based procurement is not (yet) a priority for most procurement professionals and there are no active networks, it is necessary to put more effort into motivating procurement professionals to participate. In order to have successful market dialogues and training sessions, the following additional actions will be undertaken to organise a training session in Germany:

- Engage multipliers: organisations that are already in contact with the target groups.
- Early personal contact with invited procurement professionals.
- Better and earlier communication: e.g. send out a save the date, invitation and one or two reminders.
- More advertising of the sessions through more websites.
- Very accessible and clear webpage for the training session.
- Investigate if separation of market dialogue and training session is desirable.

2. Training session in Germany, Bonn

After the first training session in Berlin had to be cancelled, a new training session was organized in cooperation with the Competence Centre for Sustainable Procurement (KNB), in Bonn on 25 April 2017. The training session was combined with a market dialogue in the afternoon. As already mentioned in the previous chapter, we made some recommendations for ourselves which were supposed to have a positive impact. In the following you'll find aspects which were considered during the planning phase of the session in Bonn:

- There were no similar events close to the 25 April 2017
- It was a joint organisation with the Competence Centre for Sustainable Procurement to create a pull effect on public procurers
- We established early contact with procurement professionals to use their respective network to attract the target group
- Most participants were invited from regional institutions near Bonn (Nonetheless, there were participants from Berlin – 600 km)
- It was not a side-event to a larger event, but a main event dedicated to procurement of BBPS
- A dedicated website was set-up for registration, information and contact data.
- Advertising was done on different websites and newsletters
- Communication and dissemination was initiated 4 months prior to the event

2.1. PREPARATION

2.1.1. Programme, date and location

The programme was prepared by FNR from the InnProBio project team to make sure InnProBio project related topics were going to be discussed. Date and location were determined by FNR together with the Competence Centre for Sustainable Procurement, in Bonn. No similar events were on or close to 25 April. The location in Bonn is well known to public procurers and procurement professionals, because the Competence Centre for Sustainable Procurement is the central information point for sustainable procurement.

In the training session presentations were given on bio-based products and bio-based products and services, risks and hurdles during the procurement of bio-based products and services, databases and other support for public procurers, legal background, policy issues and good practice cases.

Table_2: Programme training session Bio-based Procurement in Bonn (Germany)

Time indication	Subject	Objective	Speaker	How
15 min	Welcome and Introduction	Participants understand the goal of the training session.	Ilse Beneke (KNB) and Moritz Westkämper (FNR)	Presentation . Q&A.
30 min	Introduction to BBPS and procurement of BBPS	Participants know basics on different BBPS. Know the main pros and cons and understand the challenges and long term advantages. Understand that there are (limited) standards	Lara Dammer (nova-Institute)	Presentation with products examples. Q&A.
30 min	Perceived risks and hurdles of PP of BBPS	To check out the perceived barriers to plan future actions and discuss perceived barriers which could be diminished during the session	Carla Dekker (PIANOo)	Group assignment and Q&A.
30 min	Presentation of KNB's field of work and presentation of tools prepared by InnProBio	To give participants information which material is available and give them contact information for future contact	Ilse Beneke (KNB) and Moritz Westkämper (FNR)	Presentation and Q&A.
30 min	Presentation of BBPS in public tenders – legal aspects	To give participants information what is possible already and how to include BBPS in public tenders	Verena Kölsch (Bescha)	Presentation and Q&A.
15 min	Presentation of a good practice case	Participants understand how others have bought bio-based. Since procurement of BBPS is different for every subject, the best way to approach it is by learning from real cases	Moritz Westkämper (FNR)	Presentation and Q&A.

2.1.2. Session Leader, Trainer, and Speakers

Moritz Westkämper, coordinator of InnProBio, was the session leader. There were four other speakers who contributed in the form of presentations. Two of them were project partners, namely Carla Dekker (PIANOo) and Lara Dammer (nova-Institute). The other two were from the Competence Centre for Sustainable Procurement and the Procurement Centre.

2.1.3. Participants

There were 40 participants present during the event, whereas 46 had registered. Public procurers, decision makers and product suppliers attended both the training session and the market dialogue. Two product suppliers attended only the market dialogue. It was communicated that this is possible, because the training session mainly contains information relevant for public procurers and decision making professionals. As already mentioned, there were 40 overall participants. 9 product suppliers attended and 18 attendees were affiliated with the InnProBio project, the national public procurement project (“NR imEinkauf”) or other procurement projects. The other 13 attendees were either public procurers and/or decision makers.

Table_3: Organisations where German participants work

Type of organisation	Number of participants
Procurers	16
- National government	12
- Regional and local governments	4
Companies	9
Advisors and knowledge institutes	13
Total	40

2.1.4. Aim and results of the training session

The aim of this event was twofold. The session had the aim to give public procurers and decision makers an overview of the most important issues regarding procurement of BBPS. That means, basic information about BBPS was presented and further, project results, which contain detailed information and support on ‘how to procure BBPS’.

1. Basic knowledge: What is bio-based? and what products are already on the market
2. Basic knowledge about tools and information that can be applied in bio-based procurement
3. Provide good practice examples
4. Discuss risks and hurdles (barriers) and solutions
5. Basic knowledge regarding tendering, how to procure BBPS and legal aspects

2.2. FEEDBACK

2.2.1. Learning objectives

The majority of participants had a decent knowledge of BBPS and wanted to know more about tools and possibilities that could help them to procure BBPS. Nonetheless, there were some public procurers who wanted to have a first glimpse into the topic and wanted to know more about BBPS in general.

2.2.2. Perceived Barriers and Drivers for bio-based procurement

One presentation of the session dealt with risks and hurdles of BBPS during the phase of public procurement. Below, the perceived barriers and their solutions are listed that came up during the discussions and from the feedback after the meeting:

Table_4: Perceived Barriers and Drivers for bio-based procurement in Germany

Type	Barriers	Drivers
Expertise	<ul style="list-style-type: none"> A lot of relevant information is only available in English There is no database in German for the German market Too much information on too many different websites Too many certificates Products are unknown to public procurers Tenders (bio-based vs. recycling – some procurers think that it's the same) 	<ul style="list-style-type: none"> Translate into German Develop a German database for the German based on www.nachhaltige-beschaffung.de Make a portal on a trusted website to guide procurers to relevant pages Less certificates / less dependency on certificates Communication and education on bio-based products / training sessions and market dialogues National contact person(s) for sustainable

Type	Barriers	Drivers
	Missing knowledge and as a result the incapability to procure BBPS in a correct manner	procurement More training session is needed
Procurement Strategy	Price of BBPS is too high (profitability of public service) especially when neglecting LCC Public procurer can't do it all alone, there is a lack of internal support Tenders: To allow only bio-based products is problematic	Don't use initial costs but Life Cycle Costs Public Procurer needs support from all positions in his organisation (especially from high positions like directors) Variants should be allowed and good market research is necessary More good practices are needed
Technical/ Organisation	Product catalogue of "Kaufhaus des Bundes" does not yet contain BBPS – Procurement is done centrally by KdB Not enough BBPS alternatives Quality of bio-based products is often not sufficient Image of BBPS needs to be developed	Add BBPS to the catalogue Increase quantity and quality of bio-based products

2.2.3. Feedback on bio-based procurement tools developed in WP3

During the session feedback on the bio-based procurement tools developed in WP3 was given. The feedback was overall positive. All the project results, such as glossary, text blocks, toolbox and the overall information regarding BBPS were necessary and helpful for the future, according to the participants. But there was also a barrier which became obvious – language. Procurement is not easy and is best understood and easy to put into practice when information is available in your native language. So it is not surprising that the German procurer insists on information in the German language. To reduce these barriers InnProBio has translated the most important information material.

2.2.4. Feedback Training session - Questionnaire

This paragraph lists feedback of public procurers. The feedback is divided into two segments. The first mirrors what public procurers found positive and useful and the second shows the ideas of public procurers how the training session and the overall topic of 'how to develop bio-based procurement'. At some point the ideas of public procurers are similar to the perceived barriers.

Nonetheless, these ideas are listed, because it shows that the procurers that attended care about the future and the sustainability of public procurement.

Positive feedback on session

- Knowledge about bio-based products was strengthened.
- Good variety of suppliers were present to discuss barriers during the session.
- Information was given on 'where to look to find information'.
- Relevant information was discussed.
- New contacts/network were established.
- Presentation of text blocks and good practice cases were very useful.

Things to develop in future training session on procurement of BBPS

- The training session was too short .
- More background information on 'how bioplastic is made from renewable resources' would be welcome.

2.2.5. Recommendations for procurement of BBPS

Possible chances for BBPS in PP were discussed as well. Chances are listed below:

- A positive public image can be created when buying more sustainable
- Pooling of information can lead to more PP of BBPS
- More events and sessions (especially on a municipal level) are needed to inform and train people on the possibilities of BBPS and how to procure BBPS
- Provide relevant information in German

3. Series of training sessions in Poland, Lodz

The Faculty of Law and Administration of the University of Lodz organised a series of four training sessions. The first training session took place on 23 March 2017 and was titled "Green public procurement: Innovative bio-based products and services". It covered the introduction to the topic of bio-based products and services via the issue of green public procurement and ways of promoting environmentally friendly solutions in public procurement. As this was the first and initial training session planned as the introduction to bio-based products and services, which are not familiar topics to Polish public procurers, the training session focused mostly on presenting examples on what bio-based products and services are and highlighting good practice case studies.

The second training session took place on 7 September 2017 and was titled "Green public procurement II: Innovative bio-based products and services". It covered presenting examples of BBPS categories, which can be already procured by the procurers. Further part of the training covered the topic of public procurement policy and regulation, which can be used to facilitate the process of procuring bio-based products and services. Although this was the second training on the topic of BBPS, most of the participants were new and were not yet acquainted with it.

The third training took place on 20 January 2018. The session was titled "Green public procurement" and covered introduction to the topic of bio-based products and services, presenting the toolbox developed by the InnProBio project. After introductory part and presenting both theoretical and practical legal background within the EU and national regulation, the training focused mostly on presenting BBPS examples, legal solutions which enable procuring BBPS and good practice examples on how to effectively and safely procure BBPS. Additional focus was put on the topic of creating and executing the procurement agreement, as a tool of promoting BBPS and guaranteeing proper performance of the contract. This training session was also a launch event of the Polish version of the InnProBio Handbook. The handbook was presented to the procurers and the contents were discussed with them.

3.1. PREPARATION

3.1.1. Programme and location

The programmes were prepared by the Centre for Public Procurement and Public-Private Partnership and Faculty of Law and Administration at the University of Lodz from the InnProBio team to make sure the InnProBio project related topics were addressed. The dates and location were also determined by the Faculty in Lodz. As the Centre for Public Procurement and PPP is in continuous contact with public procurers, its contacts were used to organise the training sessions. The location of the Faculty, where the Centre has its seat, is well known to public procurers as many other training sessions and conferences on various topics related to public procurement take place there.

In all the training sessions, presentations were given on general rules of public procurement and how they may be used to facilitate BBPS, examples of bio-based products and services, risks and hurdles during the procurement of bio-based products and services

Training session 1 lasted from 9:30 till 13:00 and was divided into three parts: starting with a theoretical introduction on general rules regarding green public procurement, followed by a presentation of bio-based projects and services identified by the InnProBio project and ended with a presentation on actual implementation of green public procurement in practice by the City of Lodz.

Table_5: Programme first training session in Lodz (Poland)

Time indication	Speaker	Subject	Objective	How
15 min	Dr. Anna Górczyńska (UoL)	Welcome and Introduction	Participants understand the goal of the training session.	Presentation Q&A
75 min	Prof. Dr. habil. Maria Królikowska-Olczak (UoL)	Introduction to procurement policies and principles with focus on green procurement and BBPS	Participants understand basic rules and general principles of procurement policies. Know how to realise green procurement policy.	Lecture
60 min	Mgr. Mateusz Izbicki (UoL)	Introduction to BBPS and procurement of BBPS	Participants understand basics on different BBPS. Get to know the main pros and cons and understand the challenges and long term advantages. Understand that there are (limited) standards	Presentation with product examples Q&A
60 min	Dyr. Tomasz Jakubiec (City of Lodz Office)	Good practice examples from the City of Lodz in green public procurement. Strategic approach to public procurement policies and possible ways of introducing BBPS	To give the participants practical examples of procurement procedures, including policy goals, already carried out. Participants know how to implement BBPS and green procurement policies in their procurement strategies.	Presentation with examples Q&A

Training session 2 lasted from 9:30 till 13:30 and was divided into four parts: starting with theoretical introduction on general rules regarding green public procurement, followed by presentation on public procurement regulation and legal tools that can facilitate procuring green BBPS, after that examples of bio-based products and services identified by InnProBio project along with developed decision support tools were presented and finally a presentation on actual implementation of green public procurement in practice of City of Lodz was given.

Table_6: Programme second training session in Lodz (Poland)

Time indication	Speaker	Subject	Objective	How
10 min	Dr Anna Górczyńska (UoL)	Welcome and Introduction	Participants understand the goal of the training.	Presentation Q&A.
45 min	Prof. dr hab. Maria Królikowska -Olczak (UoL)	Introduction to procurement policies and principles with focus on green procurement and BBPS	Participants understand basic rules and general principles of procurement policies. Know how to realise the green procurement policy.	Lecture
45 min	Mgr Iwona Kowalczyk (UoL/ City of Lodz Office)	Legal background for green public procurement and use of environmental criteria to support BBPS	Participants know EU, national and regional regulations on green procurement. Know the scope and categories of environmental criteria along with the	Presentation Q&A
60 min	Mgr Mateusz Izbicki Dr Anna Górczyńska (UoL)	Introduction to BBPS and procurement of BBPS Decision support tools for procurers.	Participants know basics on different BBPS. Know the main pros and cons and understand the challenges and long term advantages. Understand that there are (limited) standards. Additionally participants are acquainted with DST developed by InnProBio project, with special emphasis on the text	Presentation with products examples. Q&A

Time indication	Speaker	Subject	Objective	How
			blocks.	
30 min	Lunch			
60 min	dyr. Tomasz Jakubiec (City of Lodz Office)	Good practice examples from the City of Lodz in green public procurement. Strategic approach to public procurement policies and possible ways of introducing BBPS	To give the participants practical examples of procurement procedures, including policy goals, already carried out. Participants know how to implement BBPS and green procurement policies in their procurement strategies and procurement documentation.	Presentation with examples. Q&A

Training session 3 lasted from 9:00 till 15:45 (session 3) and was divided into five parts: starting with theoretical introduction on general rules regarding green public procurement, followed by presentation on public procurement regulation and legal tools that can facilitate procuring green BBPS, after that examples of bio-based products and services identified by InnProBio project along with developed decision support tools were presented. In that part of the training project's website DST and the toolbox were presented, also the launch event of the Polish Handbook took place and gained significant interest. In the fourth part a presentation on creating a proper procurement contract was given. Finally a presentation on actual implementation of green public procurement in practice of City of Lodz was given.

Table_7: Programme third training session in Lodz (Poland)

Time indication	Speaker	Subject	Objective	How
10 min	Dr Anna Górczyńska (UoL)	Welcome and Introduction	Participants understand the goal of the training.	Presentation Q&A.
60 min	Prof. dr hab. Maria Królikowska-Olczak (UoL)	Introduction to procurement policies and principles with focus on green procurement and	Participants understand basic rules and general principles of procurement policies. Know how to realise the green procurement policy.	Lecture

Time indication	Speaker	Subject	Objective	How
		BBPS		
60 min	Mgr Iwona Kowalczyk (UoL/City of Lodz Office)	Legal background for green public procurement and use of environmental criteria to support BBPS	Participants know EU, national and regional regulations on green procurement. Know the scope and categories of environmental criteria along with the	Presentation Q&A
60 min	Mgr Mateusz Izbicki Dr Anna Górczyńska (UoL)	Introduction to BBPS and procurement of BBPS Decision support tools for procurers. InnProBio toolbox. Launch event of the Polish version of the Handbook.	Participants know basics on different BBPS. Know the main pros and cons and understand the challenges and long term advantages. Understand that there are (limited) standards. Additionally participants are acquainted with DST developed by InnProBio project, with special emphasis on the text blocks.	Presentation with products examples. Q&A
30 min	Lunch			
60	Dr Wojciech Robaczyński (UoL)	Green aspects in the public procurement contract.	Participants are aware that awarding a contract is just a beginning. The most important part is proper execution of the agreement and ensuring its performance. Participants learn methods of implementing green and BBPS aspects into the agreements and how to control their performance.	Presentation Q&A
120 min	dyr. Tomasz	Good practice	To give the participants	Presentation

Time indication	Speaker	Subject	Objective	How
	Jakubiec (City of Lodz Office)	examples from the City of Lodz in green public procurement. Strategic approach to public procurement policies and possible ways of introducing BBPS	practical examples of procurement procedures, including policy goals, already carried out. Participants know how to implement BBPS and green procurement policies in their procurement strategies and procurement documentation.	with examples. Q&A

The fourth training took place on 28 February 2018. The training was titled "Green public procurement - Procuring Bio-based products and services" and covered introduction to the topic of bio-based products and services, presenting the toolbox developed by the InnProBio project. After introductory part and presenting both theoretical and practical legal background within the EU and national regulation, the training focused mostly on presenting BBPS examples, legal solutions which enable procuring BBPS. Additional focus was put on the topic of products' certification, especially certifying chemical products. Last part of the training covered the presentation of practical experience in green procurement of local municipality Szadek delivered by its Mayor.

Table_8: Programme fourth training session in Lodz (Poland)

Time indication	Speaker	Subject	Objective	How
10 min	Dr Anna Górczyńska (UoL)	Welcome and Introduction	Participants understand the goal of the training.	Presentation. Q&A.
30 min	Prof. dr hab. Maria Królikowska-Olczak (UoL)	Introduction to procurement policies and principles with focus on green procurement and BBPS	Participants understand basic rules and general principles of procurement policies. Know how to conduct the green procurement policy.	Lecture

Time indication	Speaker	Subject	Objective	How
30 min	Dr Anna Górczyńska (UoL)	<p>Introduction to BBPS and procurement of BBPS</p> <p>Decision support tools for procurers.</p> <p>InnProBio toolbox.</p> <p>Launch event of the Polish version of the Handbook.</p>	<p>Participants know basics on different BBPS. Know the main pros and cons and understand the challenges and long term advantages. Understand that there are (limited) standards.</p> <p>Additionally participants are acquainted with DST developed by InnProBio project, with special emphasis on the text blocks and the handbook.</p>	Presentation with products examples. Q&A
30 min	dr Tomasz Gendek (THETA Technical Consulting)	Certification of chemical products, types of chemical certificates, ways of controlling environmental requirements in chemical products and services.	<p>Participant understand the importance of using high quality and bio-based chemical products.</p> <p>Participants also gained knowledge on the various types of certification.</p>	Presentation with examples. Q&A
30 min	Mgr Iwona Kowalczyk (UoL/City of Lodz Office)	Legal background for green public procurement and use of environmental criteria to support BBPS	Participants know EU, national and regional regulations on green procurement. Know the scope and categories of environmental criteria along with their examples.	Presentation. Q&A

Time indication	Speaker	Subject	Objective	How
30 min	Lunch			
30 min	Mr. Artur Ławniczak (Mayor of Szadek Municipality)	Good practice examples from the Municipality of Szadek in green public procurement. Strategic approach to public procurement policies and possible ways of introducing BBPS.	To give the participants practical examples of procurement procedures, including policy goals, already carried out. Participants know how to implement BBPS and green procurement policies in their procurement strategies and procurement documentation.	Presentation with examples. Q&A

3.1.2. Session Leader, Trainer, and Speakers

Dr Anna Górczyńska, InnProBio partner and coordinator of the project at UoL was the session leader. There were five other speakers who contributed in the form of presentations and lectures. One of them was InnProBio project partner, Mateusz Izbiński (UoL). The other speakers were:

- Mrs. Prof. Dr. hab. Maria Królikowska-Olczak, who is the head of the European Economic Law Department at the Faculty of Law and Administration UoL;
- Mr. Tomasz Jakubiec, who is the director of the Municipality Strategy Bureau at the City of Lodz Office;
- Mrs. Iwona Kowalczyk, who is one of the European Economic Law Department's specialists on green public procurement, with both theoretical and practical knowledge on procuring green.
- Mr. Dr. Wojciech Robaczyński, who is the lecturer at the Faculty of Law and Administration in the Department of Civil Law, he is also a specialist on contractual law and various aspects of proper performance of the agreements.

3.1.3. Participants

There were 20-36 participants present during each of the training sessions. The vast majority were public procurers from surrounding municipalities and local government bodies from the Lodz region, who directly conduct or assist procurement procedures in their organisations. Few of the participants were current students of UoL attending public procurement law studies.

Although it was a series of trainings, most of the participants in the trainings were new and were not yet acquainted with BBPS.

Table_9: Organisations where Polish participants work

Number of participants Type of organisation	Training session 1	Training session 2	Training session 3	Training session 4
Procurers	21	14	17	15
- National government	0	2	5	5
- Regional and local governments	21	12	12	10
Companies	1	0	4	1
Advisors and knowledge institutes	14	6	11	5
Total	36	20	32	21

3.1.4. Aim and results of the training sessions

All trainings sessions had the aim to give public procurers and decision makers an overview of the most important issues regarding procurement of BBPS, ways of promoting BBPS and achieving procurement policies goals through promoting BBPS. There were also basic BBPS examples presented to inform public procurers of already existing possibilities.

1. Basic knowledge: What is bio-based? And what products are already on the market?
2. Provide good practice examples
3. Discuss risks and hurdles (barriers) and solutions

3.2. FEEDBACK

3.2.1. Learning objectives and organisational strategy from participants

The majority of participants had almost no knowledge about BBPS and wanted to know anything regarding this kind of products and services as well as ways of procuring and promoting them. Participants were also interested in solutions that could help them to procure BBPS. Most of the public procurers wanted to have a first glimpse into the topic and wanted to know more about BBPS in general.

3.2.2. Perceived Barriers and Drivers for bio-based procurement

During a presentation on examples of BBPS the participants indicated risks and hurdles of BBPS during the phase of public procurement. Below, the perceived barriers and their solutions are listed that came up during the discussions and from the feedback after the meeting:

Table_10: Perceived Barriers and Drivers for bio-based procurement in Poland

Type	Barriers	Drivers
Expertise	<p>There is no information on BBPS in Polish available, public procurers are not aware of the possibility to introduce BBPS into their procurement policies.</p> <p>The life cycle costing method in public procurement of BBPS may cause a lot of problems, as there are no official an accepted calculation methods introduced.</p> <p>There is no database for the Polish market</p> <p>Products are unknown to public procurers</p> <p>Missing knowledge and as a result the incapability to procure BBPS in a correct manner</p> <p>Problems with definition of biobased products and services both for contracting authorities and entrepreneurs</p> <p>Apprehension of the ordering parties about the increase in the costs of executed orders, only in individual cases supported by reliable calculations</p>	<p>Make a portal on a trusted website to guide procurers to relevant pages</p> <p>Communication and education on bio-based products / trainings and market dialogues</p> <p>More training is needed</p>
Procurement Procedure	<p>Problems with description of the subject of the contract, qualification criteria and award criteria which consider green aspects</p> <p>Fear of mistakes in the implementation of green aspects in public procurement procedure and increase of appeals and remedies</p> <p>Problems with understanding of green public procurement by control institutions and</p>	<p>Communication and education on bio-based products / trainings and market dialogues</p> <p>More training for audit officials and inspection bodies is required - public procurer does not want to risk during inspection.</p>

Type	Barriers	Drivers
	<p>National Appeal Chamber (Krajowa Izba Odwoławcza)</p> <p>No specific experiences encouraging the use of BBPS in the type of procurement</p>	
Expertise	<p>There is no information on BBPS in Polish available, public procurers are not aware of the possibility to introduce BBPS into their procurement policies.</p> <p>The life cycle costing method in public procurement of BBPS may cause a lot of problems, as there are no official accepted calculation methods introduced.</p> <p>There is no database for the Polish market.</p> <p>Products are unknown to public procurers.</p> <p>Missing knowledge and as a result the incapability to procure BBPS in a correct manner.</p>	<p>Make a portal on a trusted website to guide procurers to relevant pages</p> <p>Communication and education on bio-based products / training sessions and market dialogues</p> <p>More training session is needed</p> <p>Organise a market dialogue</p>
Procurement Strategy	<p>Price of BBPS is too high (profitability of public service) especially when neglecting LCC.</p> <p>Public procurer can't do it all alone; there is a lack of internal support.</p>	<p>Public Procurer needs support from all positions in his organisation (especially from high positions like directors)</p> <p>Variants should be allowed and good market research is necessary</p> <p>More good practices are needed</p>
Technical/ Organisation	<p>Not enough BBPS alternatives</p> <p>Quality of bio-based products is often not sufficient</p> <p>Image of BBPS needs to be developed</p>	<p>Increase quantity and quality of bio-based products</p>

3.2.3. Recommendations for procurement of BBPS

In all sessions possible chances for BBPS in PP were discussed as well. Chances are listed below:

- A positive public image can be created when buying more sustainable products and services
- Pooling of information can lead to more PP of BBPS
- More events and sessions (especially on a municipal level) are needed to inform and train people on the possibilities of BBPS and how to procure BBPS
- Provide relevant information in Polish
- Green procurement policies can be realised through BBPS

All participants expressed the desire to attend more workshops and training sessions on the topic of bio-based products and services in the future.

4. Training session in the Netherlands, Utrecht

4.1. PREPARATION

4.1.1. Programme, date and location

The training session in the Netherlands was organised by PIANOo in cooperation with the Netherlands Enterprise Agency (RVO) and InnProBio partners BTG and NEN. It was held on 12 October 2017 in Utrecht. The programme was prepared by PIANOo together with the other Dutch InnProBio partners BTG and NEN. It contained a mix of presentations, discussions, quiz and group assignments. The date was chosen in order to test and get feedback on the line toolbox, so October was a good moment. At that time the toolbox was almost completed but could still be improved. In order to get procurement professionals from the whole country Utrecht was chosen, because it is very central in the Netherlands.

Table_11: Programme training session in Utrecht (the Netherlands)

Time indication	Subject	Objective	Who	How
15-30 minutes	Start with coffee and small assignment	Participants articulate their own (learning) goals and describe organisational strategy or "need" to bio-based.	Moderator Esther Veenendaal (RVO)	Posters to stick post-its on.
20-30 minutes	Introduction and introductory round	Participants understand aim of the training session.	Carla Dekker (PIANOo), Esther and participants	Introduction round. Introduction and aim training session
20 minutes	Introduction to procurement of BBPS	Participants understand what procurement of BBPS is and understand the relation with circular and sustainable procurement. Participants can give some argument why procure BBPS.	Carla, Esther and participants	Watch short movie http://bit.ly/21okv7n on procurement of BBPS Afterwards participants name arguments. Carla explains relation with circular and sustainable procurement

Module 1	Bio-based products			
15 minutes	Bio-based products and services (BBPS)	Participants know what bio-based products are, know different types, know pros and cons and understand long term pros. Understand that only few products are 100% bio-based.	John Vos (BTG)	Presentation and discussion on biomass, materials and products.
10 minutes		Introduction to BBPS database and online tool	John	Demonstration of online tool and database.
15 minutes	Break			
30 minutes	Certificates and standards for BBPS	Know about standards and certificates and understand how to use them in procurement.	Suzan van Kruchten (NEN)	Presentation and discussion.
Module 2	Procurement strategy			
20 + 20 minutes	Risks, hurdles and drivers	What risks and hurdles do you expect when procuring BBPS? How to handle these?	Suzan and groups	Group assignment and reporting. Suzan, Carla and Martin respond to the group presentations
30-45 minutes	Lunch break	Can be combined with group assignment		
30 minutes	Bio-based procurement strategy in own organisation	Participants get tips on how to get BBPS on the agenda of their organisation, who to involve in the procurement process. Importance of trial locations. Roles in socially responsible procurement.	Martin Scherpenisse (Province of Zeeland)	Presentation and discussion.
Module 3	Prepare procurement			

10 minutes	Preparation tender and interaction with the market	Market analysis, market dialogue and market consultation; Total cost of ownership and relevant procurement procedures.	Carla and participants	Quiz with discussion and sharing own experiences. Link with innovation procurement.
Module 4	Tender documents			
10-15 minutes per case including discussion	2-3 inspiring examples	Participants understand how others procured BBPS. - Functional specifications - Award criteria - TCO - Certificates - Contract	Carla and Martin	Presentation and discussion.
30-45 minutes	Practice with learned material	Discuss and continue with (preparatory) assignment in small groups. Report about your results.	Moderator Groups per category	Group assignment and reporting.
15 minutes	Wrap-up	Feedback	Participants and Moderator	Post-its with tips and tops. Summary.

4.1.2. Communication and preparation for participants

The training session was announced on 7 August 2017 via the website PIANOo.nl, in the PIANOo newsletter and via twitter. The programme was published together with a registration form. The training session was also mentioned in an e-mail, dated 4 September and sent to the bio-based procurers' network and Community of Practice, which contained an update on several developments in bio-based procurement. At that time, despite summer holidays, we already had 15 registrations.

2 October a conformation for the registration was sent to the participants together with a short assignment, designed to let the participants have a first look at the online toolbox. The result of the assignment would be discussed and further elaborated during the training session. The assignment is described in the following box.

Preparatory assignment for the participants



Your manager / director wants you to procure a bio-based product or service that puts him in the spotlight as a green public manager.

For this assignment you choose one category from the following categories: Construction and Infrastructure; Catering; Gardening and landscaping.

Questions: 1. What policy does your organisation have in which the procurement of bio-based products fits? Search for an angle. 2. Who in your organization do you need to move forward and why? 3. How will you find relevant bio-based products? 4. How do you define bio-based in your tender? 5. What procurement procedure do you think is appropriate?

4.1.3. Trainer and speakers

We decided to have two trainers: Carla Dekker (PIANOO) was responsible for the content and Esther Veenendaal (RVO) moderated the session (leading discussions, checking participants learning questions, time management, etc.). Next to InnProBio speakers John Vos (BTG) and Suzan van Kruchten (NEN) we invited experienced bio-based procurer Martin Scherpenisse (Province of Zeeland) to share hand-on experience.

4.1.4. Participants and their organisational strategy

We had set a maximum of 20-25 participants to ensure good interaction. Initially 27 participants had registered. Due to several personal reasons or work obligations we ended up with 20 participants.

Table_12: Organisations where Netherlands participants work

Type of organisation	Number of participants
Procurers	18
- National government	4
- Regional governments	3
- Municipalities	6
- Other contracting authorities	5
Advisors	2
Total	20

When registering we asked about the policy on socially responsible procurement, we learned that most organisations have something on paper about this, but that this does not automatically lead to action. Main focus is on circular procurement. Only very few organisations have a policy for procurement of BBPS.

4.1.5. Aim and results of the training session

The training session was set up for people involved in procurement and was set up to inform them about everything that is relevant to know when procuring bio-based products and services. The aim of this session was threefold. It had the aim to give public procurers and decision makers an overview of the most important issues regarding procurement of BBPS. That is, basic information about BBPS and more detailed information and support on ‘how to procure BBPS’.

1. Basic knowledge: What is bio-based? and what products are already on the market
2. Basic knowledge about tools and information that can be applied in bio-based procurement
3. Provide good practice examples
4. Discuss risks and hurdles (barriers) and solutions
5. Basic knowledge regarding tendering and how to procure BBPS

Another objective was to engage the participants in the bio-based procurement network and inform them on the community of practice in the Netherlands.

4.2. FEEDBACK

4.2.1. Feedback on bio-based procurement tools developed in WP3

Comments from the participants:

- InnProBio factsheets are very clear and helpful
- Database contains more suppliers and products than expected
- Online tool: looks good, nice to have practical tools on a website
- On line tool: more context is needed; you need to understand bio-based before you know what to look for.

The feedback is given to WP3 in order to add context.

4.2.2. Feedback on Training session

In the registration form we asked about own experiences with procurement of BBPS and learning needs. Based on this input we made some changes and planned e.g. more time for the subject “standards and certificates” than we initially had planned.

We knew we offered a very challenging and full programme with a tight schedule. Therefore we had built in some elements we could discard of. Despite these precautions the trainers had to make small changes to the time that was available for each subject during the session.

Positive feedback on the session

We received a lot of positive feedback. People valued the quality of the speakers, the diversity of the participants and speakers, the enthusiasm of the InnProBio team, the concrete useful examples – even when not successful – the varied programme, the tips from the procurer, the subject of standards and certification, etc.

Things to develop in future training session on procurement of BBPS

- Add a reader or hand-out to the training session
- Consider organising separate training sessions for different categories, e.g. infrastructure and tune the examples thereon.
- Add more time discussing the relation between bio-based and circular.

4.2.3. Learning objectives

In the registration form and at the beginning of the training session the following learning objectives were collected. These objectives were all covered in the different parts of the session.

General, basics

- What is going on in procurement of BBPS and what products are available?
- Get more basic knowledge.
- Better understanding of bio-based and its relation with circular.
- What are benefits of BBPS?
- How combine bio-based next to recycling?
- What BBPS are available?

Procurement, pilots and experiments

- How can you ask for BBPS in a tender?
- What is a good way to procure BBPS? Tips and tricks.
- When do you know for certain if bio-based is really sustainable?
- Get practical examples especially of procurement of BBPS by municipalities.
- In what categories can you ask for BBPS?
- How to integrate BBPS tactically in a contract?
- Get more insight in procurement procedures of BBPS and other socially responsible themes in order to help companies, municipalities and other organisations.
- What procurement procedure works best for infrastructure projects?
- Which award criteria can I use to assess best price-quality ratio?

Policy, organisational

- How can I integrate procurement of BBPS in our policy and tenders?
- How to get from intention to action?
- What are possibilities and how to convince my colleagues?

4.2.4. Perceived barriers and drivers for bio-based procurement

Participants discussed in smaller groups the risks, barriers and drivers for bio-based procurement and presented them in the training session. The following barriers and drivers were identified:

Table_13: Perceived Barriers and Drivers for bio-based procurement in the Netherlands

Type	Barriers	Drivers
Expertise	Lack of knowledge (internally and externally)	Time to gain experience
	Unknown makes unloved	Share successes Create a group to learn and experience and expand to other projects Communicate what is already possible, also in terms of certificates Connect with other relevant organisations and politicians Start a campaign targeting sustainability coordinators that can inform management. Share honest examples.
	Bio-based is not always sustainable.	Additional requirements required (compostable, bio-degradable)
	Fear for the unknown	Include the entire organisation, everyone needs to understand
Procurement Strategy	Fear for law suits	Knowledge and experience
Technical/ Organisation	Technical problems and adapting your own business management	Create more market volume by acting as a 'launch customer'

Type	Barriers	Drivers
	(Perception that) Specifications of BBPS are less	Challenge the market / do not settle for less
		Prepare the market by announcing the vision and scope of your procurement
	Safety not yet demonstrated	Start with small pilots
	Organisation is not ready or prepared to invest	Focus on TCO and not initial costs
	Assessment: Is there enough supply available? If not, less choices and alternatives present. Higher risk.	Keep it simple and take little risk.

4.2.5. Recommendations for future training sessions

From the experience with the training session in the Netherlands and with input from the participants we came to the following recommendations.

- To get the most of a training session, add a reader and give hand-outs of the presentations.
- Procuring an infrastructure project is quite different from other categories. So consider to organise a separate training session for infrastructure and tune the examples thereon.
- Bio-based is part of the circular economy, but how. Take enough time to discuss this relation.
- ‘Standards and certifications’ are often used in procurements. Take enough time for this subject.
- Procurement is not isolated to the procurement department. Discuss the different roles in an organisation.

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