Forum for Bio-Based Innovation in Public Procurement

Work package 3
Assessment of PPI and development of decision support tool

Deliverable No 3.3:
Mapping of existing tools for BBPS in PP

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Table of Contents

1. METHODOLOGY ............................................................................................................................. 4
   1.1. INTRODUCTION ......................................................................................................................... 4
   1.2. ACTIVITIES / OBJECTIVES ...................................................................................................... 5
   1.3. SCOPE ....................................................................................................................................... 5
   1.4. TOOLS COVERED ..................................................................................................................... 5
   1.5. PARTNERS INVOLVED .............................................................................................................. 6

2. RESULTS.......................................................................................................................................... 7
   2.1. TOOLS DEVELOPED IN THE NETHERLANDS .......................................................................... 7
   2.2. TOOLS DEVELOPED IN IN GERMANY/AUSTRIA .................................................................... 11
   2.3. TOOLS DEVELOPED UNDER STANDARDISATION BODIES .................................................. 16
   2.4. TOOLS DEVELOPED IN EC SUPPORTED PROJECTS .............................................................. 16
   2.5. MISCELLANEOUS OTHER TOOLS AND DOCUMENTS .......................................................... 18

3. CONCLUSIONS ............................................................................................................................... 20

ANNEX: OVERVIEW OF IDENTIFIED & ASSESSED TOOLS ............................................................... 22
### List of Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>BME</td>
<td>Bundesverband Materialwirtschaft, Einkauf und Logistik e.V. (German Association Materials Management, Purchasing and Logistics)</td>
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<td>BMEL</td>
<td>Bundesministerium für Ernährung und Landwirtschaft (German Federal Ministry of Food and Agriculture)</td>
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<tr>
<td>BMUB</td>
<td>Bundesministerium für Umwelt, Naturschutz, Bau und Reaktorsicherheit (German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety)</td>
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<tr>
<td>BMWi</td>
<td>Bundesministerium für Wirtschaft und Energie (German Federal Ministry of Economic Affairs and Energy)</td>
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<tr>
<td>BBPS</td>
<td>Bio-Based Products and Services</td>
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<tr>
<td>BTG</td>
<td>BTG Biomass Technology Group BV</td>
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<tr>
<td>CEN</td>
<td>Comité Européen de Normalisation (European Committee for Standardization)</td>
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<tr>
<td>CoE BBE</td>
<td>Centre of Expertise Biobased Economy</td>
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<tr>
<td>DoA</td>
<td>Description of Actions</td>
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<tr>
<td>FNR</td>
<td>Fachagentur Nachwachsende Rohstoffe e.V. (German Agency for Renewable Resources)</td>
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<tr>
<td>GPP</td>
<td>Green Public Procurement</td>
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<tr>
<td>ICLEI</td>
<td>ICLEI Local governments for sustainability</td>
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<tr>
<td>IIU</td>
<td>Inkoop Innovatie Urgent (Innovation Procurement Urgent)</td>
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<tr>
<td>INRO</td>
<td>Initiative Nachhaltige Rohstoffbereitstellung für die stoffliche Biomassenutzung (Initiative for Sustainable Supply of Raw Materials for Industrial Use of Biomass)</td>
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<tr>
<td>ISO</td>
<td>International Organization for Standardization</td>
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<td>JRC</td>
<td>Joint Research Centre (of the European Commission)</td>
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<tr>
<td>KBBPPS</td>
<td>Knowledge Based Bio-based Products’ Pre-Standardization (FP7 project)</td>
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<tr>
<td>KO INNO</td>
<td>Kompetenzzentrum innovative Beschaffung (German Competence Centre for Innovative Procurement)</td>
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<tr>
<td>NMD</td>
<td>Nationale Milieudatabase van Stichting Boukwakliteit (Dutch national environmental database)</td>
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<tr>
<td>ÖKOBAUDAT</td>
<td>ökologische Baustoffe (German database on environmental-friendly construction materials)</td>
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<tr>
<td>Open-Bio</td>
<td>Opening bio-based markets via standards, labeling &amp; procurement (FP7 project)</td>
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<tr>
<td>PIANOo</td>
<td>Expertisecentrum Aanbesteden (formally: Professioneel en Innovatief Aanbesteden, Netwerk voor Overheidsopdrachtgevers / Professional and Innovative Tendering, Network for Government Contracting Authorities).</td>
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<tr>
<td>PPI</td>
<td>Public Procurement of Innovation</td>
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<tr>
<td>SBIR</td>
<td>Small Business Innovation Research Programme (Dutch national innovation-oriented procurement programme)</td>
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<tr>
<td>SPP</td>
<td>Sustainable Public Procurement</td>
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<td>SPRC</td>
<td>Sustainable Procurement Resource Centre</td>
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<tr>
<td>Wecobis</td>
<td>Ökologisches Baustoffinformationssystem (German information system on environmental performance of construction materials)</td>
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1. Methodology

1.1. INTRODUCTION

InnProBio, the Forum for Bio-Based Innovation in Public Procurement, aims to develop a community of public procurement practitioners interested in innovative bio-based products and services. By harnessing the potential of public procurement to foster innovation, InnProBio aims to work with the public sector to develop tools for purchasers, facilitate the creation of buyers groups, and increase awareness and incentives in order to lower the barriers to purchasing, thus leading to the opening of new markets of bio-based products in Europe. InnProBio is an EU funded three-year project which began in March 2015. It is funded by the European Commission’s Horizon 2020 Programme.

In Work Package 3 (WP3), “Assessment of Public Procurement of Innovation and Development of Decision Support Tool”, a legally solid set of tools for public procurement of BBPS will be developed. The toolset will be used in an online decision support tool, as one of the training elements (in WP4), and for the development of a handbook for practitioners. The purpose of each and all of these tools is to guide public procurement practitioners to buy BBPS.

The development of the toolset will follow a number of steps, starting with the mapping of existing tools and an assessment how these can be used for InnProBio (Task 3.2.1 in the Description of Actions- DoA). The current Deliverable 3.3 presents the results of the desk research of several InnProBio partners on the availability of already existing tools on bio-based products and services (BBPS) in public procurement (PP) that can guide, inspire or be built on when developing the InnProBio tools and toolbox.

The report is divided into three chapters. This chapter (Methodology) gives a description of the stepwise approach that was followed to put together the basic inventory of already existing tools. The next chapter (Results) contains a selection and brief description of tools included in the inventory that are considered to be more or less of direct relevance to the future development of the InnProBio tools and toolbox. The final chapter (Conclusions) shows and summarises how the most relevant tools can be used in InnProBio.
1.2. ACTIVITIES / OBJECTIVES

- To make an inventory of tools for public procurement, both existing and currently under development, that can be of relevance for public procurement of BBPS with PPI relevancies.
- To map and review the usefulness of the collected tools, and assess how they can be included in InnProBio.

1.3. SCOPE

The InnProBio partnership was consulted and the Internet was searched (in about ten languages) for information on “biobased procurement”. This confirmed the findings of prior analysis, carried out in the frame of the FP7 project Open-Bio\(^1\) and/or as part of development of the InnProBio proposal, that current experience with PPI of BBPS is rather limited. At present (August 2016) “biobased procurement” is mainly an issue in the USA (USDA’s BioPreferred Program\(^2\)), at the Commission level (where it started with the so-called Lead Market Initiative), and in two EC Member States i.e. The Netherlands and Germany. In France there is interest in the topic, and the Ministry for the Economy and Finance mandated a study about the biobased products market in France and beyond in summer 2015 that aims to better understand the conditions that facilitate the selection of biobased products in public procurement\(^3\). In the InnProBio partner countries Poland and United Kingdom no biobased procurement initiatives were reported.

It was therefore decided that the inventory would mainly focus on the Netherlands and Germany, and on the European level. Since even in these most active countries not a lot of relevant tools were anticipated to exist when limiting the scope to exclusively Public Procurement of Innovation (PPI) of BBPS, the scope was somewhat broadened by looking more generally at PPI as well.

1.4. TOOLS COVERED

For the purpose of this assignment, “tools” was interpreted in a rather broad sense, to include a range of documents, instruments, etc. including the following:

1. Glossary, vocabulary, list of definitions
2. Fact sheets, case studies, best practices, other elaborated examples
3. Procurement models and modules, roadmaps, protocols
4. Handbooks, manuals, guidelines, and other guidance documents

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\(^1\) FP7 project ‘Opening bio-based markets via standards, labelling and procurement’ (www.open-bio.eu)

\(^2\) www.biopreferred.gov

5. Business and product databases, catalogues, and lists
6. Standardization, certification and labelling systems
7. Product assessment, selection/award and ranking criteria
8. Calculation tools and models
9. Text blocks for tender requirements
10. Training course materials/modules, including video and background documentation

The intent was to source information on tool availability primarily through desk research. This includes the use of partner contacts to source limited/restricted access documentation.

1.5. PARTNERS INVOLVED

The desk research work was primarily carried by the consortium partners already listed in the DoA (lead BTG, FNR, and PIANOo), ICLEI complemented the team. The involvement of ICLEI was highly relevant as it has two decades of experience with sustainable public procurement (SPP), and is also involved in a variety of PPI initiatives and projects. For example ICLEI released a new version of the Green Public Procurement Handbook “Buying Green!” in spring 2016 and is in charge of operating and moderating the Procurement of Innovation Platform4, the first port of call for all things related to procurement of innovation.

The involved partners split the work between them as follows:

<table>
<thead>
<tr>
<th>Focus area</th>
<th>Partner(s)</th>
</tr>
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<tbody>
<tr>
<td>Netherlands</td>
<td>BTG (and PIANOo)</td>
</tr>
<tr>
<td>Germany (and Austria)</td>
<td>FNR</td>
</tr>
<tr>
<td>European Procurement Projects</td>
<td>ICLEI</td>
</tr>
<tr>
<td>CEN and ISO standards</td>
<td>NEN, nova, BTG, etc.</td>
</tr>
<tr>
<td>Other European Projects</td>
<td>BTG</td>
</tr>
</tbody>
</table>

Other InnProBio partners (UH, UL, NOVA, NEN) also made useful contributions, reviewing and/or completing the work of the above partners, where relevant.

4 https://www.innovation-procurement.org/
2. Results

The mapping exercise resulted in the identification and assessment of some 150-200 items on (aspects of) Bio-based Procurement and Public Procurement of Innovation. A full overview of the items is presented in the accompanying Excel spreadsheet.

A portion of the items included in the inventory is considered to be more or less of direct relevance to the future development of the InnProBio tools and toolbox, including a handbook for practitioners and the online decision support tool. These sources with the highest relevance are briefly described below, categorised by (geographical or thematic) focus area.

2.1. TOOLS DEVELOPED IN THE NETHERLANDS

In the Netherlands there are a handful of early moving public procurers when it comes to bio-based procurement. The same more or less applies to innovation-oriented procurement. Tools from the Netherlands that are considered the most relevant are presented in two groups below. The first group concerns bio-based procurement tools. The second group includes innovation-based procurement tools.

2.1.1. Bio-based procurement tools

There is a PIANOo webportal with information introducing the concept of bio-based procurement, including a basic introduction and practical roadmap for procurers how to get started with bio-based procurement. PIANOo published several factsheets and reports with information on the prospective for BBPS in specific product categories (office furniture, high-way-related infrastructure, hospital disposables, etc.). PIANOo set up a Community of Practice (CoP) on bio-based procurement in 2015. This CoP convenes about twice every year.

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5 All items evaluated are in in Dutch, unless noted.
Provincie Zeeland, in collaboration with Centre of Expertise Biobased Economy (CoE BBE) and Tebodin, has produced several presentations and publications with information about the approach adopted and experience gained in their procurement pilot pioneering with the public procurement of bio-based products. These described opportunities, strategies, relevant product categories, procurement model, indicators/criterions, scoring system and scoreboard criteria for ranking bio-based products. In spring 2016 the app Gobiobased was launched which offers an interactive benchmark tool allowing suppliers to illustrate and showcase the additional value of their bio-based products to public procurers who can consult the tool to see what bio-based products are already on the market.

There are various databases and other collections (with highly different coverage of product characteristics), all established in the last year or two, that constitute potentially useful sources of product (and sometimes also supplier) information. Examples include:

- Bio-based collection (CoE BBE, CIV, Biobased Delta)
- Biobased Economy (Biobased Economy Secretariaat @ Min of Economic Affairs)
- Inspiratieboek biobased inkopen (Netherlands Enterprise Agency)
- Holland Bioplastics (Holland Bioplastics)
- Kennisbank Biobased Bouwe (Stichting Agrodome)
- FRONT biobased & prefab gebouwschil (NBvT)
- Biobased Huis (Min of Economic Affairs)
- Bouwboulevard (Stichting Agrodome)
- IcDuBo (Innovatie Centrum Duurzaam Bouwen)
- Biosmeermiddelen (Productschap MVO et al)

The number of products currently (March 2016) included in these databases ranges from 15 to more than 60. Among the most interesting collections in the list are the Bio-based Collection, initiated by CoE BBE, Centrum voor Innovatief Vakmanschap and Biobased Delta, and the Knowledge Bank Bio-based Construction of the Stichting Agrodome.

7 https://apps.appmachine.com/8117JC
WUR has issued several **product catalogues** showcasing e.g. bio-based materials of relevance in the construction sector\(^8\) and bio-based packaging products\(^9\). A recent report\(^{10}\) by CE includes **cases studies** on bio-based products that could be of interest to InnProBio.

There are several instruments (e.g. **databases and calculation tools**) in use in the Dutch construction sector that describe or help to determine the environmental impact of the materials used in civil work projects. The absence of (innovative) bio-based materials from e.g. the National Environmental Database (NMD), the CO2-Performance ladder, or the DuboCalc library is considered a major obstacle to achieving a level playing field for bio-based materials, products and construction concepts. In December 2014 Stichting Agrodome initiated a project to get environmental data of important wood-based bio-products listed in the NMD.


\(^{10}\) [http://www.ce.nl/?go=home.downloadPub&id=1644&file=CE_Delft_7E79_Aanpalende_economische_effecten_BE_DEF.pdf](http://www.ce.nl/?go=home.downloadPub&id=1644&file=CE_Delft_7E79_Aanpalende_economische_effecten_BE_DEF.pdf)
2.1.2. Innovation-based procurement tools

A PIANOo webportal introduces the concept of innovation-based procurement, containing links to more detailed guides and other tools e.g. useful websites, practical examples, frequently asked questions (FAQs). PIANOo also issued a Dutch version of the Public Procurement of Innovation Guidance, originally developed by the Procurement of Innovation Platform project (see Section 2.4 below). The document discusses innovation-based procurement. What it is. How it works. Contains supporting information (glossary, case studies, and links). The guide provides legal and practical information for everyone with an interest in innovation-driven procurement.

The Inkoop Innovatie Urgent (IIU) programme focuses on knowledge transfer and business development in the field of innovation procurement. IIU covers 8 different themes. Bio-based is not included. The results include the Innovatiekoffer (“innovation suitcase”) which offers contracting authorities practical tools (instruments, pathways and case studies) for a targeted search for an innovative solution. Reportedly the “innovation suitcase” will be translated into English in 2016.

The Small Business Innovation Research Programme (SBIR) is a Dutch innovation-oriented procurement programme, mainly targeting SMEs. SBIR enables the Dutch government to be a first client for new innovations. SBIR projects are procured via tenders. Via the programme companies develop innovations that contribute to solving societal challenges. SBIR is a good example of an innovation-oriented procurement programme. Some information on SBIR is available in English.
Rijkswaterstaat issued a framework document that describes the partnership and procurement arrangements it wants to use to bring innovations in its public procurement policy and implementation. Contains comprehensive overview of the procurement actions and processes developed to achieve such innovations. Good example of what elements are needed at a contracting authority to implement innovation-oriented procurement and bring about innovations (available in Dutch and English). In its recent Innovatieagenda 2015-2020 Rijkswaterstaat outlined which innovations will be given the highest priority in the coming years.

2.2. TOOLS DEVELOPED IN IN GERMANY/AUSTRIA

Tools developed in Germany are presented in a similar fashion as the Dutch tools above, that is, in two groups. The first group concerns bio-based procurement tools. The second group includes innovation-based procurement tools.

2.2.1. Bio-based procurement tools

Germany published two major policy documents on the public use of bio-based products and services. The Federal Ministry of Food and Agriculture (BMEL) published the Action Plan of the Federal Government for the use of bio-based products and the Guidelines for sustainable procurement of products and services within its own Ministry. Especially the latter document can serve as valuable source of information e.g. for the InnProBio handbook for public procurers. Also relevant in this field is the training concept for green public procurement considering bio-based products, presented by ICLEI at an FNR conference in 2011. This highlights how bio-based criteria can be implemented in tender descriptions.

11 All items evaluated are in in German, unless noted
On behalf of BMEL, FNR is the main point of contact of the German project “Nachwachsende Rohstoffe im Einkauf”, which focuses on the promotion of bio-based public procurement. The project has already generated a range of materials to assist public procurers, as follows:

- The **website** includes a wide range of information, starting with reasoning why procuring for bio-based products is an alternative to procuring for “traditional” products, giving information what kind of products and services are eligible for bio-based public procurement, and discussing ecolabels and certificates.

- The same website features a **product database** with >600 products (and their suppliers) in six broad product categories. FNR provides assistance to suppliers filling out profiles for the product database, to make their products better known. The product categories are “general needs” (including office materials, electronic articles, medicine and hygiene, sports and leisure, and packaging), “construction and renovation”, “catering”, “gardening and landscaping”, “property management” and “car fleets and machine park”.

- Several **handbooks**, from the general procurement of BBPS on a local level and a more specific handbook on the procurement of BBPS in the products group gardening and forestry, to handbooks on specific bio-based products, without a direct reference to public procurement, such as bioplastics (this publication is available in English as well), bio-lubricants or bio-based construction materials.

- **Formulation aids**, which include policy decisions and guidelines for sustainable procurement and environmentally oriented governance, and which can help decision makers to argue why and to what extent environmental considerations, such as procuring for BBPS, will be incorporated in the procurement tenders.

- Specific **text blocks** for actual tenders for specific products to identify the environmental criteria by which the public authority seeks to achieve its climate and resource protection objectives when formulating the needs and the tender.

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Another relevant FNR activity is the national conference on bio-based procurement, organised every second year. The next one is scheduled to be held in Berlin in November 2016\textsuperscript{14}.

Just recently, FNR finalised a travelling exhibition booth that showcases products with which a bio-based, environmentally-friendly office setting can be created. Nearly 100 bio-based products, ranging from office furniture to office design and furnishings can be viewed and touched at the exhibition booth. The products featured in the exhibition booth, and the companies producing these, are listed in a complimentary brochure and on the website Das Nachwachsende Büro. The website, available in German and English, gives a good overview of bio-based options for use in offices.

Das Nachwachsende Büro applies the same concept as was applied earlier by FNR for BAUnatour. BAUnatour, developed in 2010, is a container sized mobile showroom providing a sensual experience of the variety of bio-based materials. In it visitors can experience modern and contemporary architecture and interior design realised with building materials and materials from renewable resources. The accompanying website bau-natour.de further illustrates possible use of (wooden) bio-based materials in modern living, sustainable construction, and natural heating. BAUnatour v2.0 will go on another Germany roadshow in early 2017.

Das Nachwachsende Büro also builds on the concept of the FNR Building & Living website baustoffe.fnr.de that is dedicated to bio-based construction materials. The website informs about the application of wood and all other kinds of bio-based materials for use in building insulation, floors, roofs, facades, etc. New building constructions as well as building renovation and conservation are covered.

The various FNR materials are very relevant to InnProBio and can serve as a starting point for the formulation of own text blocks for tenders that will be part of the InnProBio handbook.

\textsuperscript{14} Fachtagung Nachwachsende Rohstoffe im Einkauf: Öffentliche Beschaffung zukunftsfähig gestalten. URL: https://veranstaltungen.fnr.de/tagung-nawaro-im-einkauf-2016/
Several databases and collections on BBPS are available in the German speaking countries. Three data-bases focus exclusively on construction materials. BMUB’s ÖKOBAUDAT database supports the assessment of the global environmental effects of >700 products. In ÖKOBAUDAT, building materials, construction and transport processes are described regarding their eco-logical effects. BMUB’s WECOBIS database provides for the most important product groups in construction and materials a comprehensive and neutral information source regarding health-related and environmental aspects and relevant application areas. This database can be used to find general information on the different kinds of construction materials, including bio-based materials. WECOBIS also provides text blocks for tender descriptions for the most important product groups in construction materials, a special focus here is on ecological building, which includes bio-based building materials.

The Austrian Bau-Book database presents environmental criteria for >3000 construction materials, certification according to these criteria as well as a calculation tool. The products are categorised in different product groups, bio-based products are singled out.
The Material Data Centre offers data on bio-based plastics and their applications. The system offers intuitive and intelligent tools which allow for a keyword definition and search the complete knowledge base including material datasheets, application database, literature and tradenames. This database is linked to FNR’s biopolymer network mentioned above and can be a great source for public procurers looking for information on available bioplastics.

### 2.2.2. Innovation-based procurement tools

The competence centre for innovative procurement KOINNO aims to anchor a lasting and long-term focus on innovation among public procurers. KOINNO is a valuable contact, hosting trainings, events and dialogues, and offers a range of information materials and best practice examples. Contacts were established with KOINNO at their regional meeting held on 3 November 2015 in Hamburg, where the InnProBio project was introduced to KOINNO and other attendees. InnProBio also participated in the KOINNO workshop on “innovative public procurement in Horizon 2020”. KOINNO is an established cooperation partner to FNR’s bio-based procurement events, and could be a very valuable for InnProBio regarding the training and market dialogue sessions to be developed in WP4 and to evaluate the handbook to be developed in WP3.
2.3. TOOLS DEVELOPED UNDER STANDARDISATION BODIES

Standards and norms can be highly relevant in public procurement, and it would be appropriate to collect and assess relevant CEN and ISO standards as part of the mapping exercise. However, relevant standards were already explored and discussed in detail in task 3.1, and reported in D3.2. Therefore these were not analysed further here.

2.4. TOOLS DEVELOPED IN EC SUPPORTED PROJECTS

Also at the European level there have been a range of initiatives, some of which are still on-going or even rather new, to support bio-based procurement, innovation-based procurement or sustainable procurement. The ones considered the most relevant are introduced below.

2.4.1. Bio-based procurement tools

The European Commission (DG-GROW) commissioned an assignment in mid-2015, only briefly after the InnProBio project had started. Royal Haskoning DHV will develop a bio-based procurement guidance and assistance package to procurers that will include\(^{15}\)

- Factsheets
- Information on relevant bio-based products (their availability and capabilities),
- Available standards of bio-based products,
- How to inform about bio-based products in procurement (procurement process, methods and criteria),
- Experiences, tips and best practices of bio-based products in procurement.

There may be significant overlap between the InnProBio project and this DG Growth assignment, and the two initiatives have already started to exchange thoughts and ideas if and how certain information can be shared in order to avoid duplication. A first practical result is that the Royal Haskoning DHV study has adopted InnProBio’s bio-based product categorisation and found a practical thematic division of work for the factsheets developed in both projects.

\(^{15}\) www.biobasedprocurement.eu
2.4.2. Innovation-based procurement tools

The document Guidance for public authorities Public Procurement of Innovation, issued by the Procurement of Innovation Platform project, is aimed primarily at those who are responsible for planning and executing procurement procedures (procurers). It offers detailed information about the ‘why, what and how’ of Public Procurement of Innovation, and is available in English, Hungarian, Dutch and Spanish. The structure of this guide is relevant when drafting the InnProBio handbook. It also contains a case study on uniforms made with bio-based fibres.

2.4.3. Sustainable and green public procurement (SPP/GPP) tools

The Sustainable Procurement Resource Centre is an ongoing ICLEI-led initiative that serves as a one-stop access point for procurers, policy makers, researchers and other stakeholders. The SPRC contains key knowledge on how to effectively undertake sustainable procurement, and includes an extensive database of: (a) Procurement criteria, (b) Policies and strategies, (c) Tools and guidance, (d) Good practice cases, (e) Projects and initiatives, (f) Studies and reports, (g) Ecolabels and other labels, (h) Useful links. A small portion of the resources in this online database relates to BBPS, at present mainly to biofuel and bioenergy (systems), that is, applications that are beyond the scope of the InnProBio project.

The Buying Green Handbook is a tool helping contracting authorities to buy goods and services with a lower environmental impact. It is also a useful reference for policy makers and businesses responding to green tenders. It includes: (a) Guidance on how environmental considerations can be included at each stage of the procurement process; (b) Examples drawn from contracting Europe; (c) Sector-specific GPP approaches for buildings, food and catering services, electricity and timber. Although it does not really concerns BBPS the recent revision of the handbook (the 3rd edition was published in spring 2016) introduces GPP in the light of the new EU Procurement Directives and might be a good reference point for the InnProBio project. It could be a guide to a structured way of introducing BBPS products.
2.5. MISCELLANEOUS OTHER TOOLS AND DOCUMENTS

This last category primarily contains miscellaneous documents that have limited direct use but may be useful as background documentation. They discuss schemes, certificates, and labels that are of relevance to BBPS. Also listed is a set of guides, handbooks and other documents, developed and published by the EC’s Joint Research Centre (JRC) and by EC supported research projects such as BIOGRACE and PROSUITE, on environmental and/or sustainability assessments. Another set of research and discussion papers address the potential of, and experiences with, innovation-procurement in various parts of the EU. This included 2 textbooks on the subject of public procurement for innovation.

Some documents nonetheless deserve specific mentioning. This includes several reports (from the EC Expert Group on Bio-based Products and from the EC supported research pro-jects KBBPPS and Open-Bio that specifically focus on BBPS. For example:

- reports on (eco-)labelling (KBBPPS D5.5 Green label report\textsuperscript{16} & Open-Bio D7.1 Assessment of Ecolabel criteria for bio-based products\textsuperscript{17})
- a report mapping product databases (Open-Bio D8.1 Available tools and best practices\textsuperscript{18})

Last but not least, although not a European source, it is worth mentioning the BioPreferred\textsuperscript{®} Program, in particular for its elaborate bio-based product catalogues. The US Department of Agriculture (USDA) BioPreferred\textsuperscript{®} Program, established by the 2002 Farm Bill, promotes the purchase and use of bio-based products, which have a specified amount of bio-based content, including plant, animal, or marine resources. USDA designates the minimum content of bio-based materials used in products. Two major programme elements are federal procurement preference and a voluntary labelling programme.

Under the first programme element federal agencies, as well as their services and construction contractors, are required to give preference to bio-based products when making purchasing decisions. Based on performance and availability USDA identifies categories of bio-based products that are relevant for preferential procurement. As part of this process the minimum bio-based content is specified per product category. At the moment (August 2016) there are close 97 product categories with more than 10,000 bio-based products.

In February 2011 USDA introduced the USDA certified bio-based label, for easier recognition by the consumer. To earn this label manufacturers and distributors of biobased products should have the bio-based content independently laboratory tested and third-party certified.

\begin{itemize}
\item \textsuperscript{16} http://www.biobasedeconomy.eu/media/downloads/2015/11/15-03-18_KBBPPS_D5_5_labels.pdf
\item \textsuperscript{17} Restricted document
\item \textsuperscript{18} http://www.biobasedeconomy.eu/media/downloads/2014/07/14-04-24-Open-Bio-D8.1_update.pdf
\end{itemize}
The Biopreferred® Catalog assists users in identifying products that qualify for mandatory federal purchasing, are certified through the voluntary labelling initiative, or both. The catalogue is in particular useful to get a feeling what bio-based products are available on the US market.
3. Conclusions

At least two partner countries provide **active support to bio-based procurement** at the national level, that is the Netherlands (through the Dutch Expertise Centre for Public Procurement - PIANOo) and Germany (through the Agency for Renewable Resources - FNR). This is reflected in the scope and number of information sources from these countries that may be relevant to InnProBio.

In The Netherlands bio-based procurement is piloted at the national level (e.g. Rijkswaterstaat), the regional level (e.g. the province of Noord Brabant) and also the local level (e.g. the municipality of Bergen op Zoom). Provincie Zeeland has even committed to implement bio-based procurement organisation wide.

In Germany the Federal Ministry of Food and Agriculture (BMEL) is funding work by FNR to support bio-based procurement. A recent result is a travelling exhibition booth, a booklet and a website all showcasing products with which a bio-based, environmentally friendly office setting can be created.

Further practical support to bio-based procurement will become available from the work commissioned by DG GROW in September 2015.

The above mentioned organisations have issued, and continue to issue, various documents (typically in their national languages) to guide and assist procurers on bio-based procurement. Noteworthy are in particular their web **portals, handbooks and factsheets**. So far the developed material is mainly written in German or Dutch but it can nonetheless be used as a source of **inspiration** and for **translation**.

Besides general documentation, the organisations involved produce also more specific support material. For example, FNR developed **formulation aids and text blocks**, for integration into tendering documents. PIANOo established a **Community of Practice**, as real life platform for the exchange of (practical) experiences. Provincie Zeeland commissioned the development of an **interactive benchmark tool**. DG-Growth commissioned among other things the development of factsheets and targeted **training** materials.

**Policy documents** on the public use of BBPS that can serve as background information are available e.g. from BMEL.

Bio-based product **catalogues, databases and collections** (not necessarily focused on public procurement) are available from e.g. Germany (FNR) and The Netherlands (WUR, CoE BBE, Stichting Agrodome). Construction material databases (ÖKOBAUDAT, WECOBIS, BAUBOOK, NMD,) were usually not set-up to include/promote bio-based products but some (including WECOBIS) cover them nonetheless.

**Environmental/sustainability assessments and calculation tools** with some relevance seem to be widely available e.g. from Germany (the BBSR Bauteile Editor, the AÖL Bioplastic Tool), Austria (Bau-Book Rechner), The Netherlands (CO₂-Performanceladder, DuboCalc), the EC’s Joint Research Centre and EC-supported projects (BIOCHEM, BIOGRACE, PROSUITE). Some of these are more generic in...
nature whereas other focus on specific products and/or targets groups. Unfortunately few if any were developed specifically for bio-based products\(^\text{19}\).

On the subject of Public Procurement of Innovation (PPI), there seems to be no shortage of potentially relevant documents. Lead organisations in Germany and The Netherlands are the German Competence Centre for Innovative Procurement KOINNO and PIANOo respectively. At the European level ICLEI is a key player. To what extent the PP materials are of real relevance depends on the intended use. Existing materials where primarily screened for the presence of potentially relevant case studies and for their relevance as an example e.g. of the possible structure of the InnProBio handbook.

\(^{19}\) Which is why not all of them were discussed in the main text. To help fill the gap the European Commission recently invited H2020 research proposals concerning “Sustainability schemes for the bio-based economy” that, among others, shall develop objective and quality life cycle assessments.
Annex: Overview of identified & assessed tools

Please refer to the associated MS-Excel sheet, by clicking here
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