

Commission Expert Group for Bio-based Products

Working Group Public Procurement of Bio-based Products

Recommendations 2016

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Introduction

The Commission's Lead Market Initiative (LMI) between 2008 and 2011 fostered the development of the bio-based products sector by exploring demand-side innovation policy tools such as standardisation, labelling, and public procurement. This sector was selected as a lead market because it is seen to have the potential to offer significant benefits to European society, in terms of innovative job creation, using renewable and alternative resources to fossil carbon, as well as stimulating rural development. The main outcomes of this initiative were an interim report "Taking Bio-based from Promise to Market", policy papers on financing and communications, and a list of priority recommendations for enabling the market uptake of bio-based products.

Subsequently a Commission Expert Group¹ for Bio-based Products was set up in mid-2013 for a period of four years. The Expert Group's objective is to advise the Commission on the development of the bio-based products sector by, amongst other things, proposing demand-side industrial policy actions conducive to the market uptake of bio-based products and processes (standardisation, public procurement, awareness raising, labelling, etc.).

The Expert Group set up three Working Groups of which one is the Working Group on Public Procurement of Bio-based products. This Working Group had the goal of developing effective and implementable recommendations for actions at regional, national and European level in relation to public procurement as a market creating vehicle for bio-based products. The work was conducted over four phases: intelligence gathering; analysis; recommendations; consultation and dissemination. The working group conducted upwards of 200 days of consultation and analysis involving approximately 50 subject matter experts and culminating in a one day final review workshop² for 30 professionals on 27 October 2015 in Brussels.³

The resulting recommendations are listed in the current paper. Each individual recommendation is driven by the overarching principle of **transitioning to an ever more sustainable economy**. Implementation and investment decisions for the recommendations should be tested against this sustainability principle. Complementary interests such as regional economic strategies, industrial investment, rural livelihoods, innovation ecosystems, political strategies, citizen well-being, et cetera are essential additional drivers. One defining characteristic of the bioeconomy is that its resources are harvested from ecosystems that have multiple functions which are essential for humans and nature. The need for sustainable management of the cradle of these resources, be they forests, agricultural lands or oceans, is a key condition if we are to ensure that the term 'bio-based' is associated with a product's sustainability footprint.

Driving uptake of bio-based products in public and innovation procurement programs will above all require smart integrated and agile management approaches over a prolonged period of time. Short term organisational approaches such as joint task forces or multi-stakeholder associations should be considered in the interim period while longer term permanent coordination solutions are established. In this context, recommendation number 15 is the most strategic and important long term objective that the group

¹ http://ec.europa.eu/growth/sectors/biotechnology/bio-based-products/index_en.htm

² <http://www.biobasedeconomy.eu/procurement-workshop/>

³ The activities were supported by bioeconomy innovation consultants PNO Innovation NV under the coordination of the Working Group and its co-ordinators, NEN Netherlands (Harmen Willemse) and EuropaBio (Ana Maria Bravo).

proposes. Because of its complexity, the groups advises to continue to implement the other recommendations (1-14) that are achievable in the short term, while leveraging the existing initiatives to prepare for the long term incorporation of Bio-based products into the European economy.

The intended audience for these recommendations are public procurers, economic development agencies, environmental organisations, circular bioeconomy stakeholders and policy makers at regional, national and European level.

The current document addresses recommendations for actions to be taken (the “what”). A follow-on phase of work will be carried out, starting mid 2016, to identify and initiate specific measures, instruments and resources for implementation of the actions (the “how”).

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1. Product and Materials Campaigns

Campaigns to encourage adoption of 'bio-based' in procurement criteria for public procurers should be developed around specific product and materials classes which demonstrate the clear sustainability, economic, social and performance benefits and characteristics of using bio-based.

This will allow all actors involved in the purchasing chain to focus on concrete scenarios. For instance:

- Lubricants for mobile applications such as forestry and marine equipment and vehicles. Such lubricants, for example chain saw oil, due to the nature of their use, may be accidentally dispersed in the environment. Substituting biodegradable or bio-based alternatives can reduce harmful impacts in case of such incidents.
- Mono-use impregnated non-woven cleaning fabrics ("wet wipes"). Both the substrate fabric and the impregnating liquids can end life in the environment as a result of the distributed usage pattern. Biodegradable substrates and liquids can reduce harmful impacts.

Similar cases can be made for a wide variety of product types such as boat and aircraft cleaning products, paint and graffiti removers, agricultural spray adjuvants, floor cleaning products, dust suppressors, carpets, insulation and many more. A campaign could be dedicated to intermediates (binders, solvents, resins, etc) in order to develop the support materials and processes necessary to encourage public procurement to target materials which are bundled inside complex service contracts. Industry stakeholders can greatly support this effort. The case for each product or product category will be founded on the precondition of sustainable sourcing of the biomass and LCA improvement over alternatives as well as on price, performance and other criteria.

2. Regional/National Campaigns

Campaigns to encourage adoption of bio-based in procurement criteria and sharing of knowledge for public and innovative procurers should be targeted at regions which share certain interests in bio-based value chains and benefits.

This will allow all promoters of the bio-based sector to focus local and/or regional resources on concrete public procurement scenarios with known dynamics and outcomes – which is in line with the Circular Economy Action Plan, published in 2015. For instance:

- Regions with an already declared ambition in this space can be 'champion' bio-based regions. A 2015 Commission study⁴ reports 45 regions that declare special bioeconomy interests, including Wallonie (Belgium), Castilla y León (Spain), Haute-Normandie (France), Puglia (Italy) and Mazowieckie (Poland) and many more.
- Regions with evolving bioeconomy value chains centred on, for example, forestry, sugar beet, corn or hemp. Leading sugar beet regions which also combine strong industrial biotechnology footprints are

⁴ Analysis of Smart Specialisation Strategies in Nanotechnologies, Advanced Manufacturing and Process Technologies
http://ec.europa.eu/research/industrial_technologies/pdf/analysis_of_RIS3_in_NMP.pdf

Wallonie (Belgium), Nordrhein-Westfalen (Germany), Rheinland-Pfalz (Germany), Groningen (Netherlands), Noord-Brabant (Netherlands) and Champagne-Ardenne (France).

- Regions already practising pre-commercial procurement or public procurement for innovation and environmental sustainability, and hence proactively exploring the potential of procurement platforms for innovation. Examples of such regions are Nordrhein-Westfalen (Germany), Trento (Italy), all of the Netherlands, Stockholm (Sweden), Vienna (Austria), Lombardy (Italy), Vantaa and Oulu (Finland), among many more.
- Regions which have green public procurement or social return on investment criteria already strongly embedded into their practices. All of the Netherlands applies social return on investment criteria. Turin (Italy), Rotterdam (Netherlands), Bristol (United Kingdom), Barcelona (Spain), Copenhagen (Denmark) and a few of the cities which have active sustainable public procurement policies.

Other interesting categories could be selected with varying degrees of complexity, for instance small rural regions, marine regions or regions containing capital cities (or Covenant of Mayors cities) or containing strong bio-based champion organisations.

3. Sector Campaigns

Campaigns to encourage adoption of bio-based in procurement criteria for public and innovative procurers should be targeted at a selection of specific service sectors which can benefit from the addition of bio-based as criteria in their sustainability practices.

This will allow all actors involved in the uptake of bio-based - including manufacturers, distributors, specifiers, buyers, users and standards bodies - to engage on real cases. For instance hospitals, defence forces, construction, roads, ministries, public transport and education.

Such campaigns will result in the development of deep knowledge and support materials for the sectors, and the potential for sector specific transfer of knowledge and best practices. The campaigns can be combined with product and regional campaign criteria. For example bio-based cleaning products can be used to target government ministries or bio-based construction materials in the United Kingdom and Ireland. All campaigns will include information and support to assure procurers develop expertise on the sustainability and life cycle profiles of the bio-based products in question.

4. Roll-out of Standards

Accelerate convergence on commonly accepted bio-based and sustainability standards, their uptake and the practical application of such standards. This will require the setting of threshold or default values by standards organisations and political bodies.

A number of important standards, and standards application frameworks have recently become available or are under development. Since 2011 the CEN Technical Committee CEN/TC 411 “*Bio-based products*” has been developing European standards with uniform requirements and test methods regarding the characteristics of bio-based products. These cover horizontal issues including the essential elements of LCA, sustainability, end-of-life options and bio-based (carbon) content which are at the heart of bio-based value chains. These standards enable promotion of the benefits of bio-based products. They are fundamental for a sound understanding of the sustainability and life cycle benefits of bio-materials. Some key standards are very recent and not widely known. Some are in the final stages of development. Once complete, these standards will require considerable effort to assure their widespread acceptance and application.

Currently these standards have no defined thresholds for the minimum amount of bio-based content, nor regarding sustainability criteria for bio-based products in general. Developing and agreeing upon these standards, thresholds, criteria and appropriate certification is viewed as the collaborative responsibility of those involved in bio-based value chains, from primary producers through to consumer product manufacturers and end of life managers.

5. Labels

Promote development of and convergence on commonly accepted sustainability labels, their uptake and the widespread application of such labels by manufacturers. Establishing threshold or default values for labelling schemes based on relevant standards will be part of the effort.

There are close to 500 “ecolabel systems” worldwide of which two of the more prominent are Europe’s Ecolabel and Germany’s Blauer Engel. Several voluntary schemes from the biofuels sector have created add-ons or extended their scope to bio-based products. These include RSB, ISCC+ and Better Biomass.

The USDA BioPreferred programme launched a dedicated bio-based label in 2011 and this is judged to have provided a significant boost to the bio-based procurement program. Indeed US stakeholders lament not having launched it several years earlier. Though this programme could not be implemented in the same form at EU-level, it clearly demonstrates the impact of a label. There are prospects for development of a new European bio-based label based on certification against EN standard 16785-1 and this represents a strong opportunity for convergence. Currently there are no widely used bio-based labelling practices, though there are several exploratory efforts underway such as the incorporation of bio-based criteria into the EU Ecolabel scheme.

Label schemes, while not mandatory, greatly facilitate public procurement selection processes. Efforts should be made to converge on a commonly accepted labelling approach inside an ambitious timeframe, say by 2020, and for this approach to be promoted to bring about widespread application. Label schemes should ideally help to ensure sustainable sourcing of the biomass and include LCA profiles. A database of products applying such labels, and meeting recognised standards, should be created.

Working Group 5 of CEN Technical Committee CEN/TC 411 “*Bio-based products*” is developing standards for reporting and communication of characteristics of biobased products in Business to Business and Business to Consumer interaction.

6. Sector Analysis

Carry out comprehensive information gathering exercise on the number, nature, distribution and practices of Europe’s public procurement bodies so that future efforts to promote uptake of bio-based procurement criteria are founded on comprehensive sector intelligence.

Public procurement is carried out by tens of thousands of agencies across the Union’s 276 regions and 28 Member States. Little is known about them. Current information is anecdotal and patchy, making any awareness campaign on bio-based a challenge. Any initiative on including ‘bio-based’ into existing procurement programmes should be supported by a comprehensive knowledge of the sector’s agencies and purchasing practices, volumes and characteristics. This will allow for a systematic planning of campaigns and support measures which can also be tailored to regions’ particular interests in purchasing “bio-based”.

The information gathering effort could be shared with other emerging and promising sectors requiring the same intelligence. The resulting ‘Knowledge Centre’ should be maintained over a period of years in order to reap the benefits of such a strategic and coordinated investment effort as this. The preliminary assessment of the current landscape conducted by the Expert Group is a valuable starting point.

7. Bio-based Uptake Indicators

Define metrics and measuring techniques for determining the level of incorporation of ‘bio-based’ as criteria in public and innovative procurement practices. Define a baseline for future reference. Market pull instruments (i.e. indicative targets, tax credits) for growth may also be considered.

“You can’t manage what you can’t measure”. Investments to promote adoption of bio-based by public procurers should be linked to some hierarchy of indicators related to procurement agency types, distribution, procurement contract types, form of adoption and bio-based materials and applications. Baseline indicator values should be established. Indicators may be based on data collection and dedicated reporting, though indicators based on low cost and smart intelligence gathering mechanisms, such as surveys or “baskets of goods” sampling, should be given priority.

The indicator set could be extended to include measures of bio-based uptake generally. Such indicators will be valuable to all bioeconomy stakeholders. They should be linked to underlying sustainability and LCA profiles.

This effort will provide stakeholders and leaders with a common language for direction setting and progress monitoring.

8. Manifesto, Value Proposition and Mission

Develop and articulate a clear manifesto for advocates and stakeholders of bio-based public procurement. The heart of this concerns the sustainability and LCA benefits to society and the environment. The signatories should be individuals relevant to the target public procurement community.

Many opinion-leading and policy-making stakeholders in Europe's public procurement community - including procurement agency executives, suppliers, politicians and end-users of the procured goods and services - are unaware of the fundamental notions concerning bio-based products and the associated benefits, characteristics and vision for growth. Considerable effort should be given to articulating a unifying manifesto for bio-based which should include compelling value propositions and a vision for levels of take-up in a defined timeframe. The value proposition should include the bio-based contribution to fossil displacement and climate change mitigation as well as its contribution to rural economy revitalisation, materials security and potential for locally generated innovation. In order to ensure the credibility of the message, sustainable sourcing methods should be incorporated into the manifesto. The manifesto should ideally include some form of inspirational pact between leading European institutions and individuals relevant to the targeted public procurement community..

Signatories should be comprised of authoritative political figures and opinion leaders, ideally including some from regions which are already champions in the sector.

The importance of such an authoritative manifesto is that it will provide a solid basis and mandate for professionals working in the field, helping overcome barriers to recognition and acceptance. It will also give it visibility and authority among political figures.

9. Procurement Specifiers Information

Develop comprehensive product and materials information kits to support procurers and their associated service providers in the specifications and tender design processes.

Procurers can be encouraged to consider application of bio-based procurement criteria. But their efforts will be greatly accelerated if they have easy access to information kits which explain the applications, suppliers, benefits, lifecycles, sustainability profiles and cost profiles of bio-based products and materials on the market.

A comprehensive foundation kit should be created to enable procurement executives and specifiers to quickly acquire a deep appreciation of the state of the art of the bio-based sector and its possibilities for them. This foundation should include materials and value chain information, fossil comparisons, standards, criteria and labels, and the fundamentals of life cycle analysis and social return on investment evaluations. Central to this foundation kit shall be detailed information on bio-based products and materials benefits. Also included should be references to practices in other regions and countries.

The action should be one-size-fits-all, since it is expected that national and regional organisations will take up initiatives and will adapt them if necessary to the needs of their respective regions and procurer organisations.

10. Targeted Outreach

Integrate bio-based public procurement into the frameworks of the Commission's most important platforms and instruments, such as the LIFE Programme, Green Public Procurement, the Key Enabling Technology (industrial biotechnology) strategy, Horizon 2020 (Societal Challenges 2), the Bio-based Industries Joint Undertaking's calls and the actions of the Circular Economy Package.

There are numerous strategic organisations, projects, platforms and instruments in Europe which could and should adapt their missions and activities to include some form of support for bio-based public procurement. These include environmental programmes and organisations, standards and labelling schemes, public procurement platforms, pieces of legislation and innovation grant programmes. Opportunities for targeted outreach should be systematically identified and representations should be made to the relevant governing bodies to have recognition and support for bio-based incorporated.

Even soft references to bio-based public procurement have a positive reinforcement effect. This outreach will be founded on principles of value chain sustainability and progress in respect to fossil based and other unsustainable value chains.

This action could be extended to target member state implementation measures for the 2014 Public Procurement Directive.

11. EU Legislation Review

Review legislation and regulatory files of the European Commission to identify upcoming items of legislation with the potential to influence and foster uptake of bio-based public procurement. Identify opportunities for favourable adaptation of such files.

There is a constant stream of legislation under development in Europe, for the most part directives and regulations. In 2014 for example, the Public Procurement Directive was passed, though without reference to bio-based. This was a lost opportunity. Legislation under development should be scanned to identify opportunities for support of bio-based, whether with soft references or more incisive provisions.

The action should also include a review of current legislation to identify barriers and opportunities for take-up of bio-based public procurement.

In addition, action should be taken to stimulate and support similar initiatives for legislation at national and regional levels.

12. Bio-based Materials Directive

Consider a directive to mandate public procurement action for bio-based materials. The directive scope may be enlarged to address other bio-based sector growth mechanisms and aims, allowing member states to determine the instruments most relevant to them.⁵

Ultimately a package of soft advocacy measures may not bring about a sufficiently quick transition to sustainable bio-based value chains and a sufficiently quick rate of displacement of carbon intensive fossil based materials in the economy. A Bio-based Materials Directive should be comprehensively explored in order to identify and articulate viable legislative measures. For instance a hierarchy of targets for different materials and applications categories could be considered, based on volumes, impact, availability and timing.

We should draw from the experience with the implementation of the renewable fuels legislation (FQD, RED) and its associated debates. Also, inspiration should also be drawn from the USDA BioPreferred legislation which mandates ‘affirmative public procurement practices’, as opposed to ‘mandated targets’. The European Energy Taxation Directive should be considered as a model. Carbon or emissions trading schemes may be considered. Fiscal incentives such as refundable tax credits should be considered, as they are in the USA. Measures should be designed to provide 10-20 years of stability in order that long term regional, educational, financial, agricultural and industrial investments can be made in confidence and such stability should be enshrined in the legislation itself.

Even if the prospects of success for such a Directive may be limited in the current period, externalities may trigger change. For instance the climate change emergency could become so pronounced that stakeholders may seek ambitious additional new measures for fossil displacement. Efforts to draft a Directive may be exploited in the short term via a Commission Recommendation or Communication.

⁵ To be implemented within the constraints of the legal framework.

13. International Cooperation

Identify and collaborate with standards, labels and public and innovative procurement schemes outside the European Union. Establish shared approaches. Transfer home and localise successful approaches.

Values chains and markets are global. All of the world's major economies are developing some form of bio-based vision and programme. The example of the USDA BioPreferred programme, with associated standards, labels, legislation and procedures, illustrates that there are synergies and opportunities for common approaches. For example firms in 43 countries outside the USA now use the BioPreferred labelling system, making it easier for these manufacturers to market their products to US federal buyers or indeed to any consumers who value bio-based characteristics.

Action should be taken to examine the international opportunities of bio-based public procurement, to transfer best practices and to promote joint development of supporting measures with countries outside the European Union.

14. General Outreach

Conduct sustained campaigns of high quality communication, outreach and promotion of sustainable bio-based products and of public procurement opportunities.

Recognition of the terms 'bio-based' and 'public procurement' are generally low, outside of a small and close community of professionals. The basic notions and benefits are not immediately obvious to non-experts.

The stakeholders of public procurement systems include everyone from the end users of public services to the service providers, to manufacturers and to regional and national governments. The numbers of people involved can easily reach tens of millions of people. Investment should be made in large scale efforts to build awareness among stakeholders of the values and opportunities of bio-based. Such efforts should be based on a mix of continuous and campaign driven initiatives. This recommendation should link to the current work being done at the bio-based Working Group on Awareness.

Outreach should include advocacy for education and professional development both at third level education institutions and directly within procurement bodies. Public procurement professionals are a highly skilled and dedicated body of people, and as the principle agents of change there can be only limited progress without their full buy-in and ownership.

It should include information campaigns by way of quality journalism in relevant media channels. There should be determined efforts to build bio-based public procurement through professional networks, conference events and through publicity for success stories, testimonies and inspiring leader figures. Industry and research stakeholders can be engaged to support outreach efforts by joint actions and synergies.

15. Permanent Coordination Initiative

Establish a full-time office dedicated to planning and implementation of a diverse package of measures for reaching ambitious targets for uptake of bio-based public procurement practices.

Driving uptake of bio-based public procurement through multiple measures – as outlined in the current document - will require smartly integrated and agile management approaches over a prolonged period of time. Public procurement, accounting for 20% of consumption, is a powerful market making opportunity. However the public procurement sector is complex and diverse and requires highly skilled and dedicated treatment. Disjointed actions or actions involving long lead times, limited agility and arm's length governance models (i.e. grant programme coordination actions or short term public tenders) may struggle to achieve the desired impact and continuity.

The USDA has a permanent coordination office focused on uptake of the BioPreferred programme and which also serves as a strong and effective advocate for the bioeconomy generally.

Interim organisational approaches such as joint task forces or multi-stakeholder associations should be considered in the short run, while longer term solutions are established. Existing grant-funded or tendered projects (for example InnProBio, Open Bio, COSME) already serve the purpose of coordination, but this is still temporary and fragmented. A more stable and holistic effort seems to be necessary to realise this recommendation. A key task for such a body will be to support the coordination and exploit synergies among the current Commission-initiated grants and tendered projects mentioned above. This should be done by a central body or team, comprising of, amongst others, professionals with track records in applied public procurement. As mentioned in the introduction, this is the most strategic and important long term objective that the group recommends. Because of its complexity, the groups recommends to continue to implement the other recommendations that are achievable in the short term, while leveraging the existing initiatives to set this up for the long term.