

Furthering sustainable development: The implementation of Green Procurement in Central and Eastern Europe Methods and Experiences from Hungarian Public and Private Organizations

Wspieranie rozwoju zrównoważonego: realizacja zielonych zamówień w Centralnej i Wschodniej Europie Metody i przykłady z publicznych i prywatnych firm na Węgrzech

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Abstract

The aim of the article is to show how one of the most active and demonstrative management tool for furthering sustainable development can be successfully implemented through a Central and Eastern European example. The Green Procurement Hungary Project (GPH project) was conducted in order to develop a toolkit most suitable for implementing green (public) procurement, in order to use the enormous purchasing power of public and private organizations for furthering sustainable consumption, eco-production and all together sustainable development. The article shows the relationship between sustainable-, green- and social procurement, introduces the state-of-the-art of green public procurement in the EU with specific attention to the CEE countries and shows the methodology developed in the GPH project. This methodology has great significance for practitioners and policy makers as well for the implementation of sustainable procurement. Even on the European level, for example by the development of funding opportunities and by the evaluation of project proposals these experiences are valuable.

Key words: sustainable procurement, green public procurement, green procurement, sustainable consumption, ecolabels, sustainable development

Streszczenie

Celem artykułu jest ukazanie, jak jedno z najczęściej stosowanych narzędzi z zakresu zarządzania można wykorzystać do wspierania rozwoju zrównoważonego, na przykładzie Europy Centralnej i Wschodniej.

Projekt węgierskich zielonych zamówień (The Green Procurement Hungary Project, GPH project) wprowadzono, aby poszukiwać najlepszych rozwiązań w tym zakresie. Celem jest wykorzystanie ogromnej mocy nabywczej firm publicznych i prywatnych dla wspierania zrównoważonej konsumpcji i eko-produkcji, a poprzez to zrównoważonego rozwoju.

Artykuł ukazuje powiązania pomiędzy zrównoważonymi, zielonymi i społecznymi zamówieniami, wskazuje na najnowsze rozwiązania przyjęte w UE, szczególny nacisk kładąc na kraje Europy Wschodniej, omawia także ich stronę metodologiczną. Ten ostatni aspekt jest niezwykle istotny dla praktyków i polityków, jak również w kon-

tekście bezpośredniego wdrażania zielonych zamówień. Nawet na ogólnoeuropejskim poziomie, przykładowo poprzez rozwój instrumentów finansowych, czy sposobów oceny zgłaszanych wniosków, te doświadczenia są bez wątpienia wartościowe.

Słowa kluczowe: zrównoważone zamówienia, zielone zamówienia publiczne, zielone zamówienia, zrównoważona konsumpcja, eko-etykiety, zrównoważony rozwój

Introduction

The first part of the article focuses on the relationship between sustainable development and procurement by defining the two terms and giving a brief specification of the topics appearing in the paper. The second part will focus on the barriers of green procurement and introduces a possible solution with methodology.

Starting with the widely known and accepted definition of sustainable development: *Development that meets the needs of the present without compromising the ability of future generations to meet their own needs* (WCED, 1987). This definition is completed by commonly accepted principals of sustainable development in terms of economic development, social development and environmental protection. Sustainable consumption and production is a key area in achieving sustainable development in today's societies. In order to succeed these principals should be parts of our everyday lives on all levels of the economy (households, public level, and business level). According to Walker and Brammer, 2009 Sustainable procurement *is consistent with the principles of sustainable development, such as ensuring a strong, healthy and just society, living within environmental limits, and promoting good governance*. Sustainable procurement can be defined as the pursuit of sustainable development objectives through the purchasing and supply process (Johnsen et al., 2012).

The first advantages of sustainable procurement is that enormous purchasing power can be used effectively to switch towards green economy and achieve the goals of sustainability by orienting production and consumption trends and encouraging the demand for environmentally friendly products and services. (Testa et al., 2014; Li and Geiser, 2005; Edler and Georghiou, 2007; Ambec and Lanoie, 2008). For example, in case of public procurement, spending represents 15 to 30 percent of the GDP of a given country on average, which used in a sustainable manner can drive markets towards innovation, sustainability and helps the transition to green economy. Sustainable Public Procurement (SPP) was identified in *Agenda 21* and in Chapter III of the *Johannesburg Plan of Implementation* as one of the key means to achieve sustainability (UNEP, 2012). It is now clear in policy making, that SPP can play a strategic role and specifically contribute to achieving sustainable development goals. *With SPP, governments can lead by example and deliver key policy objectives in the environmental, social and economic fields. With respect to environment, sustainable pro-*

curement can allow governments to reduce greenhouse gas emissions, improve energy and water efficiency and support recycling. Positive social results include poverty reduction, improved equity and respect for core labor standards. And from an economic perspective, SPP can generate income, reduce costs and support the transfer of skills and technology (UNEP, 2012).

Nowadays it is becoming more and more important for companies in the competing sector to stand out from the crowd of others. So in connection with CSR or simply environmental awareness it is worth taking actions for environmental protection. The products and services that meet the *green* criteria are usually top quality and represent the latest technical trends. This means that there is a major saving potential in their use. Together the positive public judgment and the financial savings can result better position in the market, a competitive edge. Green procurement is an obvious tool, because it is one the most active and most demonstrative ways of environmental protection. (Diófási and Valkó, 2012a)

Sustainable procurement is a burgeoning and current topic even though it is a relatively new research field. This is suggested by the fact that since 2000 the number of research articles has increased about tenfold (Johnsen et al., 2012).

Definitions and research limitations

In this part the relationship between green-, social- and sustainable procurement will be introduced shortly. As mentioned in the Introduction part there is quite a lot of literature on sustainable procurement, but each article has a slightly different conceptual approach and each lives with narrowing the subject's focal point probably due to the topic and the complexity of possible purchasing criteria.

According to Johnsen et al., (2012) in this field of research we have to face cultural relativism. Views of sustainability are relative, and differ from individual to individual, organization to organization, sector to sector, and country to country (Nygren, 1998).

The other fact is, that procurement in the public and private sector also differs a bit. The following figure (Figure 1) seeks to show the differences in procurement types. The categorization can be based on the organization type: private procurement, or more frequently used supply chain management and public procurement, which is the purchasing practice of public organizations guided by legal framework. At the same time categorization can be based on the type of joint effects that procurement is meant to

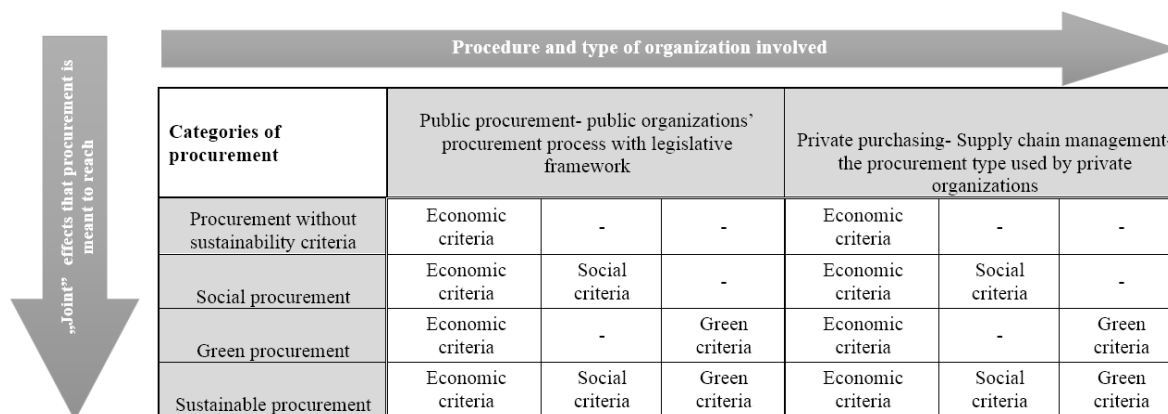


Figure 1. Categories of procurement, source: own compilation

reach besides the fact that the organization needs to buy a product or service. This joint effect can be described very simplistic with the followings:

- Social procurement: good, product, good price with social benefits;
- Green procurement: good product, good price and environmental benefits.

The tradeoff between the three aspects of sustainability in procurement creates differentiations. It is obvious that procurement is strongly linked to the economic aspect, but it is relatively rare that social and environmental criteria both accompany it and results in truly sustainable procurement.

Sustainability in supply chains

Walker and Brammer (2009) found that there is a quite high research interest in sustainable supply chain management, with the overwhelming majority of studies focusing on environmental issues in private sector manufacturing supply chain contexts (Frota Neto et al., 2008; Piplani et al., 2008; Srivastava, 2007; Vachon and Klassen, 2008; Zhu et al., 2008).

This can be due to the complexity and interdisciplinary nature of green criteria, because nonetheless practice suggest that social aspect of sustainable procurement is focusing on labor rights, improving work conditions, avoiding child work especially in case of international companies who work with suppliers from less developed countries. From the contents of CSR reports it can be assumed that the social aspect of sustainability is more likely to appear in the private sector in form of, for example, employing disabled workers, gender equity programs and in funding different charity organizations.

Sustainability in public procurement

Walker and Brammer (2009) also found that relatively few articles have investigated sustainable procurement issues in a public sector context (Mitra and

Webster, 2008; McCrudden, 2004), but there are a number of national and international studies and guidelines on both social and green procurement.

This suggests that in practice, when governments seek to participate in the market as purchasers and at the same time seek to regulate it through the use of their enormous purchasing power (McCrudden, 2004), it is quite difficult to integrate both social and green criteria. While the impact of green criteria can be measured relatively easy, social criteria often ends up in the *socioeconomic* effect category such as the promotion of local industries, the creation of jobs, and the support to micro, small and medium-sized businesses etc.

Even though researches and scientific articles focus on these topics separately on the international level UNEP has made significant efforts to promote SPP and also give examples (UNEP, 2012).

On the European Union level, the two aspects (social and environmental) are separated in terms of guidelines and in terms of promotion too. The **Procurement Reform** might bring some changes in terms of providing legal framework for further integrating sustainability criteria in public procurement. In the beginning of 2014 Directive 2014/24/EU replacing directive 2004/18/EC and Directive 2014/25/EU replacing directive 2004/17/EC were adopted. *The aims of the new public procurement rules include contributing to the implementation of environmental, social inclusion and innovation policies* (PPR, Fact sheet No. 8, 2014). In the followings the possible inclusion of social criteria will be introduced and the actions done by the EU so far.

According to the above mentioned new directives the possibility to include social criteria in the public procurement procedures will be furthered. A selection will only be mentioned of the most important changes:

Social inclusion: It will now be possible to reserve procurement procedures. This means that for all types of work, services and supplies for specific structures ('sheltered workshops') or social enterprises working for the inclusion of disadvantaged

people. To participate in such reserved procurement procedures, 30 % of the employees at the company must be disadvantaged (PPR, Fact sheet No. 8, 2014).

Subcontracting: competent national authorities must also ensure compliance with environmental, social or labor law obligations under EU or national rules, collective agreements or international law (PPR, Fact sheet No. 8, 2014).

There are two very important changes which will not only effect the social criteria, but the environmental as well. The first one refers to legal obligations and the second one to production processes.

Legal obligations: Based on respecting applicable environmental, social or labor law obligations under EU and national rules, collective agreements or international law. Member States and public authorities must ensure compliance with the obligations in force at the place where the work is carried out or the service is provided and any company failing to comply with the relevant obligations may be excluded from public procurement procedures (PPR, Fact sheet No. 8, 2014).

*Production process: public purchasers may now consider the process by which the goods, services and specific work they intend to purchase are **produced**. Therefore, they may decide to award the contract concerned to the company that intends to employ the greatest number of disadvantaged people, such as the long-term unemployed, to produce the goods or services concerned. They may also consider the specific working conditions of the employees concerned, which may extend beyond legal requirements. However, these criteria may apply only to staff involved in the construction, production or supply of goods or services covered specifically by the public procurement contract in question. The company cannot, therefore, be required to apply a general social or environmental responsibility policy, as such a requirement is not specific to the goods or services purchased* (PPR, Fact sheet No. 8, 2014).

We should note that these new rules should be implemented by Member States by 2016. The effect of regulation will depend on the national implementation levels. The promoting tools for social procurement in the EU, for example: **Buying Social**, A Guide to Taking Account of Social Considerations in Public Procurement (Buying Social, 2010) will be updated and probably further support given to projects helping procurers with the implementation of social criteria (e.g. Landmark project).

According to our research, the European Union had so far made more significant efforts to promote **green public procurement**, rather than the social criteria. In form of a website, toolkit and plenty of supporting material (GPP Europe) green procurement is given slightly more visibility (further description about European GPP will be in the next chapter). According to Testa et al. (2014), legislative interventions and the implementation of operational

tools have been developed to promote the adoption of green public procurement in United States (Swanson et al., 2005), Canada (Brammer and Walker, 2011), South Africa (Bolton, 2006), Asia (Ho et al., 2010), Australia (Chang and Kristiansen, 2006) and Japan (Brammer and Walker, 2011) too. So we can say that the separation of the two aspects in procurement is very common.

The right balance between social and environmental sustainability aspects in procurement seems to be a *next* development level and a further strategic goal.

This article in the followings will focus on the European state-of-the art of green public procurement, so the environmental aspect will be addressed, due to the above mentioned slightly asymmetrical situation in the selected European region.

Green Public Procurement in the EU

Researchers and experts agree, that public procurement can shape production and consumption trends and significant demand from public authorities for *greener* goods and is able to create or enlarge markets for environmentally friendly products and services (Testa et al., 2012; Li and Geiser, 2005) For this reason green public procurement (GPP) is becoming a cornerstone of environmental policies at the European Union level and at some Member State levels as well (Tukker et al., 2008). According to Testa et al., (2012) in the European Union there was a strong and convinced promotion of these instruments, so that green procurement is gradually turning into a legally binding instrument (COM (2008) 400).

The European Commission also had a number of studies (GPP Europe, Studies) focusing on the uptake of GPP in the EU. The most recent data is from 2012, which shows how the Member States implemented the concept. Figure 2. shows the implementation of National Action Plans based on the findings of the study titled *Strategic Use of Public Procurement in Europe* (Adelphi, 2011). In 2003 there was a communication on Integrated Product Policy which encouraged the Member States to develop their national GPP action plans by the end of 2006 (Diófási, 2012). As it can be seen from Figure 2. some of them are still missing. Germany has action plans on the federal level, implemented at different times, that is why no exact date is stated on the map. In November 2014. 22 of the 28 Member States had adopted a National Action Plan or an equivalent document (Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Finland, France, Germany, Ireland, Italy, Latvia, Lithuania, Malta, Netherlands, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, UK) (GPP Europe, NACs). 6 Member States still do not have accepted National Action Plans (Croatia, Estonia, Greece, Hungary, Luxembourg, and Romania) (GPP Europe, NACs). The reasons can be different, but another study titled: *The uptake of green public pro-*



Figure 2. National Green Public Procurement Action Plans in the European Union, 2011, source: Adelphi, 2011

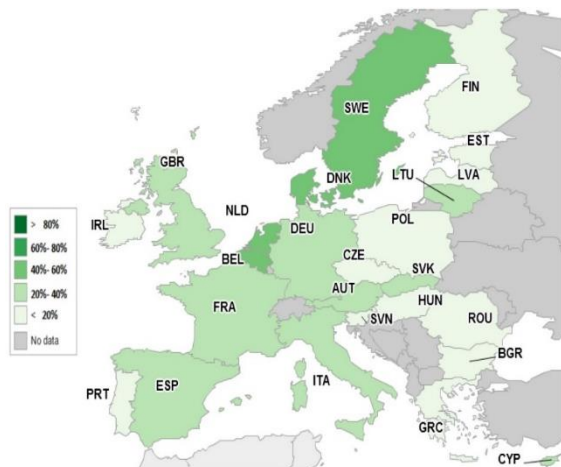


Figure 3. GPP in the European Union based on the number of green contracts compared to *non-green* contracts, 2012, source: CEPS, 2012.

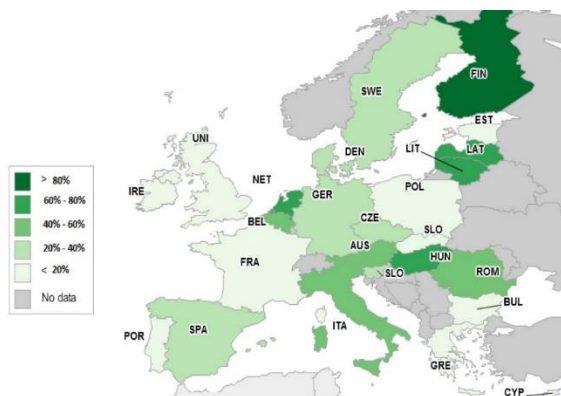


Figure 4. GPP in the European Union based on the monetary value of green contracts compared to *non-green* contracts, 2012, source: CEPS, 2012

urement in the EU 27 (CEPS, 2012) highlighted the assumption that there is a correlation between the existence and adoption of national action plans and the uptake of GPP: *Many of the countries that lead in*

GPP uptake are also those where a NAP was adopted early on (CEPS, 2012).

Figure 3. shows the level of implementation of GPP in the different Member States based on the number of green contracts compared to *non-green* contracts (from the years 2009-2010). The top four performers are Denmark, Sweden, Belgium and the Netherlands. 12 of the Member states perform a level of GPP uptake under the level of 20%.

Figure 4. shows the value of green contracts compared to non-green contracts signed by the respondents of the survey in 2009 and 2010. This figure draws a slightly different image, but we can say that *overall, the level of EU GPP uptake in the EU27 appears lower than the 50% target set by the European Commission in 2008 (CEPS, 2012).*

Table 1 shows the data from the Central and Eastern European countries separately. This data is based on surveying public authorities and because of small numbers of respondents all indications should be read with caution. A number of EU funded projects reached this region and all of the countries were already involved in at least one of these projects. The most recent ones were BuySmart+ (BuySmart+, 2014) and the Effect project (Effect, 2014) which both ended in 2014. The main objectives of these were to consolidate and mainstream green procurement in the member states, that are more developed in terms of green procurement and to transfer the know-how to the other member states where green procurement is still at an early stage. Both of the projects use toolkits and trainings as methodology, but in reality, based on Hungarian experiences, these only offer awareness raising and sensitization, not effective information for the implementation of green procurement in practice.

Table 1. Green Public Procurement in the CEE countries, Source: own compilation based on the data from CEPS, 2012

Country	% of some green criteria used	% of some green criteria in monetary value
Bulgaria	41	19
Czech Republic	29	21
Estonia	28	10
Hungary	58	68
Lithuania	44	63
Latvia	17	70
Poland	27	18
Romania	26	41
Slovak Republic	63	14
Slovenia	32	37

Problems, barriers

Even though the EU makes significant efforts to implement GPP, had even developed a toolkit (GPP Toolkit), funded many sensitization projects (Green Labels Purchase, BuySmart, BuySmart+, 2014; Ef-

fect, 2014) there are still barriers and obstacles that some of the Member States could not jump over. This part will summarize the drawbacks that negatively affect the uptake of GPP.

There are mainly three fields identified by Testa et al., (2012) that pull back GPP implementation:

1. economic,
2. political,
3. cognitive.

This type of categorization of barriers are based on the research done by Bouwer et al., (2006), which will be described in detail in the followings.

In 2005 the European Commission, the Directorate-General for the Environment (DGENV), commissioned a service contract to a consortium of five European organizations to *develop a measurement tool and measure the current level of green public procurement across the European Union (EU) and make available examples of environmental technical specifications for a series of product and service groups identified as most suitable for 'greening'. The status of GPP in Europe was measured by analyzing the answers on 860 questionnaires from public bodies from all 25 member states* (Bouwer et al., 2006). The consortium developed a web based questionnaire, which was translated to 19 languages of the EU and distributed to over 8000 public purchasing bodies in the Member States. These were local authorities (e.g. municipality), regional governments (e.g. county, region, province), central government bodies, other (semi-) public bodies governed by public law and water, energy, transport and telecommunications sector. The response rates are shown in Figure 5, but the average was 11 percent (the exact numbers per country can be found in Bouwer et al., 2005, page 85).

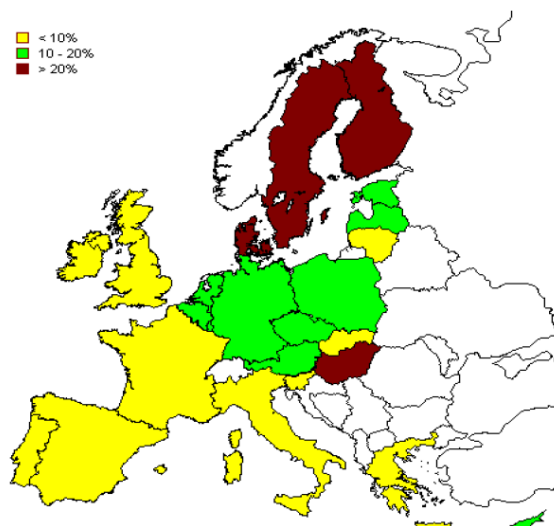


Figure 5. Response rates for GPP Questionnaire, Source: Bouwer et al., 2006

The questionnaire on green public procurement included product group related issues and management, procurement practice related issues as well.

For identifying the barriers *purchasers were requested to give their view on 10 possible obstacles preventing GPP. These possible obstacles were:*

1. *Lack of management support (including money and time), strategic focus and organizational policy strongly promoting GPP.*
2. *Lack of general political support in the country, province or municipality.*
3. *Lack of interest from procurement department/teams.*
4. *Lack of knowledge about the environment and how to develop environmental criteria.*
5. *Lack of training for public procurement officers.*
6. *Lack of practical tools and information (e.g. handbooks, internet-tools).*
7. *Perception that environmentally friendlier products would be more expensive.*
8. *Perception that environmentally friendlier products would not be readily available.*
9. *Perception that European directives are not clear about taking into account environmental criteria.*
10. *Concerns about legality of green public procurement.*

Respondents could select the three obstacles they experienced the most (Bouwer et al, 2006).

Table 2. shows the 5 mostly identified *leading-obstacles* of green public procurement.

Table 2. The 5 leading-obstacles of GPP according to, Source: own compilation based on Bouwer et al., 2006

	Obstacle	Responses from all member states
a	Perception that environmentally friendlier products would be more expensive	44%
b	Lack of knowledge about the environment and how to develop environmental criteria	35%
c	Lack of management support (including money and time), strategic focus and organizational policy strongly promoting GPP	33%
d	Lack of practical tools and information (e.g. handbooks, internet tools)	25%
e	Lack of training for procurement officers	25%

These can be categorized, as mentioned above, as economic (a), political (c) and cognitive (b, d, e) barriers as done by Testa et al., (2012).

1. Economic: 44 percent of the surveyed public authorities stated, that their main barrier is the perception of financial burden, the assumed higher cost of green products and services.
2. Political: 33 percent of the public authorities indicated that there is a lack of management and political support of GPP and that significantly draws back any implementation efforts. The au-

thors had examined this barrier in one of their previous article (Diófási, 2012) which found that senior public sector officials often demonstrate low awareness of the importance of GPP. Without a dedicated strategic focus and an organizational policy strongly promoting GPP – in terms of time and money – the integration of environmental aspects will remain inadequate. Although a high level of commitment to national targets is not always a guarantee of successful implementation. Often there is a low level of understanding of the exact requirements, therefore creating an *implementation gap* – the conflict between policy and practice.

3. Cognitive: 25 percent of the surveyed public authorities identified the lack of training and available supporting tools and 35 percent mentioned technical expertise and know-how as a main barrier of GPP.

According to Testa et al., (2014) usually, the absence of complete information and knowledge is a typical hurdle in any decision making process and also applies to the GPP process (Günther and Scheibe, 2006): information on the real environmental impact of the products, the difficulties in finding suppliers or in preparing calls for tenders and purchasing, the lack of guidelines from higher order authorities and of co-operation between authorities (Bouwer et al., 2006; Thomson and Jackson, 2007; Walker and Brammer, 2009) causes this cognitive burden.

We should highlight the interdisciplinary nature of green criteria setting: the lack of knowledge to formulate specific, measurable and verifiable environmental preferences (Varnas et al., 2009) can be a personal barrier too. According to the aforementioned study of the authors (Diófási, 2012) the lack of employees' awareness of environmental problems, the lack of trainings calls for self-assessment within the organization and for attitudinal changes. Public administrations in general and the relevant purchasing officers in particular often lack the technical and legal expertise to apply sustainable procurement standards. Cooperation across departments and the consultation of external experts from research institutions and NGOs is therefore a crucial success factor. These barriers should be avoided so that the implementation and the theoretical advantages of green procurement can be fulfilled.

Case study from Hungary

Even though Hungary does not have a leading role in implementing green procurement, according to the before mentioned studies, efforts had been done to promote the concept. The Green Procurement Hungary Project (GPH Project) had been launched in 2010 by the authors and engaged eight public organizations, and 27 private companies. 120 people were trained and 19 pilot projects completed within the GPH project so far until the end of 2014. The

project has a bottom up approach, which means that no governmental or EU level support was given for its development. The aim of the project is twofold:

1. To develop a useful and suitable aid, a toolkit for Hungarian organizations willing to implement green procurement.
2. Another goal was to raise awareness about green procurement and collect best practices from Hungary, to prove that the concept of green purchasing is feasible in this country too.

Throughout the project the goal was to get a varied sample to be representative for Hungary in terms of possible procurement procedures, but volunteers were always welcomed, since it is a great achievement, that more and more organizations became interested in implementing green procurement within this project. This is the reason for the higher number of private organizations taking part.

In the next part we make a few assumptions about why the interest in the project rose year by year. These assumptions are not only valid for Hungary. These phenomena are quite common all through Europe and can be used effectively in other countries where green procurement needs further support.

Assumptions for growing interest in green procurement

There could be different reasons for positive interest in green procurement from 2010 and later.

1. Sensitization by EU funded projects, raising awareness about sustainability issues;
2. Personal commitment of the management and employees;
3. Existing certified environmental management systems.

On the European level there was a strong support for promoting sustainability and energy efficiency, so a number of information campaigns, conferences and sensitization projects reached Hungary and CEE as well. These campaigns mainly raised awareness and brought together people personally interested in giving a sustainable aspect into their work. This is important, because we can assume that organizations with high awareness on the benefits of green procurement are more likely to include environmental criteria in their call for tenders (Testa et al., 2014). This statement is proven to be valid for our case studies too since part of the consultations completed were concluded with connection to the BuySmart+ project in Hungary (BuySmart+,2014).

This leads us to the question of personal commitment. According to the Italian research done by Testa et al. (2014), GPP practices are not dependent on the administrative solutions and the organization, *but they are primarily determined by the actions and beliefs of individuals within the organizational structure* (Testa et al., 2014). This is a remarkable result and the same experience is valid for Hungary, complemented by the fact that supporting organiza-

tional structure, procurement culture is a key to successful implementation of green procurement and in general any change in management activity. The statement is confirmed by Douglas, saying that *behavior in organizations is induced by norms, routine and in particular culture* (Douglas, 1987). In Hungary research is done yearly to discover the current trends in public procurement. *The Public Procurement and Development 2013* study also shows, that respondents considered procurement culture and organizational culture to be the key to overall quality development of public procurement (Tátrai, 2013). Existing certified environmental management systems (ISO14001, EMAS) also helped our work in implementing green procurement, since organizations already knowing EMSs were more open for new and additional solutions to improve their environmental performance. Testa et al.'s (2014) research suggests that there is no clear correlation between EMSs and GPP performance on the long run, which was our experience too, but the existence of the EMS within the organization definitely means at least some kind of commitment to environmental issues.

Categorization of participants

The most important and slightly unexpected result of the GPH project so far is, that a new method was found for the categorization of procurement tools. Usually the toolkits and literature (articles, guidelines) are based on organization types (public or private), but in our opinion it is more effective to separate the tools according to the type of procurement process. Different types of processes usually have different resources, personnel and need a completely different approach in order to have successful implementation of environmental aspects or any other aspect (e.g. social), that brings changes to the daily routine of procurement. This was one of our most evident, but not yet discovered conclusions. *It is more effective to differentiate between the processes than between organization types.* For example it makes no difference in terms of training and supporting toolkit if public or private organization is going to conduct below threshold/normal tendering.

Toolkit introduction

From the initial version over the years' of the GPH project finally three types of toolkits emerged. Modifications, developments were made on the toolkit (altogether 3 times) upon demand of the project participants. This way the final versions reflect the needs of practitioners and contain truly useful information for the implementation of green procurement in practice.

The introduction of the toolkit will only focus on the aspects that:

1. differ from other toolkits designed for green procurement,
2. are new findings,
3. can be used in other countries and environments too (e.g. could be used for implementing social criteria).

According to the experiences of the authors separating procurement types and modifying the support strategy accordingly is the most successful method for implementing green procurement. This is why the final a, b, c versions of the toolkit are for the following three types of procurement processes: (a) public procurement, (b) under the threshold procurement or private tendering, (c) ad-hoc purchases.

In this context public procurement process (a) means the purchasing process of a public organization under the scope of public procurement act (a process guided by legal framework). The (b) type of process can be defined as a procurement process with standard tendering (call for tenders: subject, technical specifications, award criteria, selection criteria and performance clauses), but not falling under the scope of any legal framework. This can be due to under the threshold procurement done by a public organization or simply by the procurement process of a private organization. Usually private organizations (SMEs and large enterprises) use this process by bigger value purchases and in case of developed management practices. Ad-hoc purchases (c) in this context mean small scale purchases, usually done by micro enterprises, SMEs and small public authorities. The term here is used for not planned, made-on-demand purchasing of daily, small value products which have significant environmental impact.

Each type of process needs different supporting toolkit. All versions of the toolkit have four parts: training, performance sheets, calculation tool and a collection of evaluation methods. This elements are present in most of the green procurement toolkits (GPP Europe, Toolkit; BuySmart), the differences are minor, but very important. Each addresses one of the barriers listed in the Problems, barriers part. The **training** is very important, since this is the way to give explanations, knowledge and attitude to the participants with methods used in adult education. The trainings always have to be carried out by experts of the topic and is always a person-to-person experience. Every other kind of support and consultations can be managed online, but for trainings this was found to be the most effective way. The authors had previously worked on the training methodology, further information can be found in a previous article (Diófási and Valkó, 2012a). With the training the economic natured barriers can be resolved, by teaching the participants life cycle costing and giving example calculations for each product group. The **calculation tool** is very useful for demonstration. The **performance sheets and evaluation methods** are supposed to make green procurement easy by offering ready to use basic (core) and comprehensive

Table 3. Green Procurement Toolkit of the GPH project, Source: own compilation

Version	Target group	Product Groups	Description	Parts of the toolkit			
				Training	Performance sheets	Calculation tool	Evaluation methods
a	Public organizations	Smart phones, taxi/courier services, long term car rental services, paper and printing service, notebooks, PCs, street lighting, facility management, cleaning services	Procurement process based separation, not the type of organization matters: public procurement	GPP management, legal framework, comprehensive explanation of environmental criteria	Text, recommendations for all 5 stages of call for tenders / core and comprehensive criteria/ e.g.: <i>recycled paper</i>	For demonstration of LCC	Ecolabel or if ecolabel criteria used external help / e.g.: <i>EU Ecolabel or equivalent proof</i>
b	Public and private organizations	Smart phones, taxi/courier services, long term car rental services, paper and printing service, notebooks, PCs, street lighting, facility management, cleaning products/services, sanitary paper products, in-door lighting	Procurement process based separation, not the type of organization matters: below threshold or private tendering	Green procurement management, ecolabels	Text, recommendations for all 5 stages of call for tenders/ core and comprehensive criteria+ available ecolabels/ e.g.: <i>EU Ecolabel certified paper</i>	For demonstration of LCC	Ecolabels or exact evaluation method if the product group does not have ecolabel criteria

green criteria and exact ways of evaluation. This is where version (a) and (b) differs. In case of public procurement the use of ecolabels is limited in terms of allowing different, but equal kind of proof for compliance. So in public procurement cases the criteria from Type I and Type I-like ecolabels (UNEP web) can be used. This raises the question of involving experts who can confirm the compliance based on the data provided by the bidder. In case (b) by under the threshold or private tendering ecolabels can be used without restrictions, which makes criteria setting and evaluation much easier. The third version (c) is due to the nature of ad-hoc purchasing is totally based on ecolabels. In this case too, only Type I and Type I like labels can be used, since these provide third party certified proof for environmental compliance and direct information to the shoppers. These ecolabelled products are available in most countries thanks to the European market- though the level of availability is different for example in Scandinavia and CEE. The availability of ecolabels is a further research topic, more information can be found on them in Diófási and Valkó, 2012b, Baranyi, 2*011 and in many other international articles. The following product groups had been offered and requested over the GPH project: taxi/courier services, long term car rental services, paper and printing services, notebooks, PCs, street lighting, cleaning products/services, sanitary paper products, in-door lighting. These are the most commonly used product groups in green procurement, and are the

most suitable for greening, although the list can be broadened and hopefully will be.

With the use of the three toolkit versions 19 successful pilot projects were concluded so far. Altogether the fact that over the years more and more interested parties joined green procurement implementation within the GPH project means two things:

1. That the work done with the development of the toolkit and support was successful and
2. that if bottom-up approaches tend to work effectively, the organizations in Hungary are ready for more comprehensive governmental support, policy, and goal setting.

With the already mentioned European Public Procurement Reform further support is expected for sustainability criteria. Not only on the environmental side, but among social aspects too. As we had seen from the above mentioned examples, the inclusion of green criteria might be difficult, but not impossible. The same statement can be made for social criteria inclusion as well. Even though in Hungary only a few steps had so far happened in terms of social procurement: the Hungarian version of the *EU Social Procurement Guide* (Buying Social, 2010) is available and a database (Sheltered workshops database, 2015) had been created for *sheltered workshops* which means that 50% of the employees should be disabled people. The new directives stepping into force might give more field for sustainability criteria in the national legislation as well. The latest available official data shows this slowly moving positive

trend in the increase of green and social criteria in the public procurement procedures – see table 4.

Table 4. Type of sustainability criteria in Hungarian public procurement procedures 2012-2013, Source: own compilation based on the data from Hungarian Public Procurement Authority (HPPA 2012-2013)

Type of sustainability criteria in public procurement	2012	2013	2012	2013
	number (pcs)		value (million Euro)	
Green public procurement	465	971	141	320,6
Social public procurement	115	144	45,6	105

We must add that, in spite of the positive trend, there is no available data about the inclusion of green and social criteria together, resulting in truly sustainable procurement so far.

Conclusions

We can say that, the integration of green and social criteria into the procurement cases in the CEE countries need further support and development. With this new, and carefully tested methodology there is a great chance to implement green procurement more successfully than before and we believe that with intensified attention the toolkit of the GPH project can be used in any of the CEE countries that have similar level of GPP and need further assistance for development. Further task and research area is to integrate social aspects into the toolkit and create a complete methodology for sustainable procurement. Even until then, the results of the GPH project can be used by governments and policy makers, by choosing projects for funding and creating national strategies and targets. Practitioners and experts can also benefit from the findings and we hope that with these actions the transition towards sustainable consumption can be accelerated and the goals of sustainable development can be reached.

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