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public procurement in cities
support circular economy and
sustainability transition?



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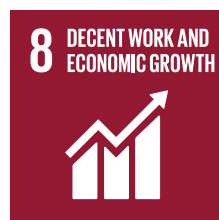
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Outlook 6

Circular economy in public procurement to enable a sustainability transition in cities.

*By Peter Defranceschi and Estela Grana,
ICLEI ¹*





INTRODUCTION

Cities are increasingly responsible for most of GDP production, energy use, CO₂ emissions and waste generation and should at the same time ensure a good quality of life for all their citizens. Despite the challenges of rapid urbanisation exacerbated by linear economy models of take-make-dispose industries and lifestyles based on depleting finite reserves to create products that largely end up in landfills or incinerators, cities can also provide the solutions to these challenges.

The 17 Sustainable Development Goals (SDGs), all relevant for cities, refer to these global challenges and provide a valid framework on how to tackle them. In particular SDG 12 on sustainable consumption and production calls for the promotion of sustainable public procurement practices in accordance with national policies and priorities.

This policy outlook draws on the following conclusions towards circular economy in public procurement:

- With their enormous purchasing power², cities have the potential to drive the market towards more eco-innovation and achieve solutions to these challenges and provide the framework for a transition from the current consumption and production patterns towards a more restorative and regenerative circular economy (see section 2.2)
- With the consensus for circular economy growing and resources shrinking, the urge to walk the talk and make it happen on the ground becomes imperative. Several national governments have started adopting enabling policies (see section 3.1)
- Taking into account drivers and barriers (see section 3.2), circular procurement policies can unleash the procurement power of public authorities to shift from traditional linear purchasing to support circular transitions. Despite the infant stage good practice is steadily spreading (see section 3.1)
- Success factors and lessons (see section 4.1) learned can and should be applied in the delivery of further public policies that can improve and further

support the procurement capabilities of cities. Success factors included:

- Analysis of other experiences and multi-stakeholder dialogue prior to tendering procedure.
- Strong market engagement prior to the tendering and throughout the process.
- Experimenting and sharing experiences.
- Accessible and/or alternative funding mechanisms for cities.
- Particularly “Green Deals”, i.e. partnerships between cities, business, research, universities and civil society (social economy) proved to be successful policy instruments.
- To make circular procurement happen a series of transformative actions are recommended (see section 4.2):
 - Awareness-raising and training events.
 - Sharing good practices on circular procurement in cities.
 - Tender models and tender criteria for circular procurement.
 - Circular procurement dashboard for public procurers and political decision makers.
 - Piloting and experimenting with circular procurement.

In conclusion, circular procurement offers not only the opportunity to increase nature protection and jobs and to reduce the cost of materials and energy used, but also to stimulate new technologies, new design patterns (e.g. Cradle2Cradle design) and socio-economic business models.

CIRCULAR ECONOMY AND THE URBAN TRANSITIONS CHALLENGES

Today, more than half of the world's population lives in cities and urban dwellers are expected to represent 70% of the world population by 2050. By 2050 latest, cities will generate 75% of global GDP production and will be responsible for 75% of global energy use, 75% of natural resource extraction, 75% of global CO₂ emissions and 75% of global waste generation (Ibrahim Thiaw, 2015).

As the number of urban dwellers increases, they rely increasingly on outside resources to meet their demand for energy, water and food among others, and are under enormous pressure to find these resources and accommodate waste and emissions. In addition, with the current linear production and consumption economic model spread across the globe since the industrial revolution, only a small share of the waste produced is reused, recycled or traded as secondary materials and the vast majority, including valuable and scarce materials, goes to landfill or is incinerated³.

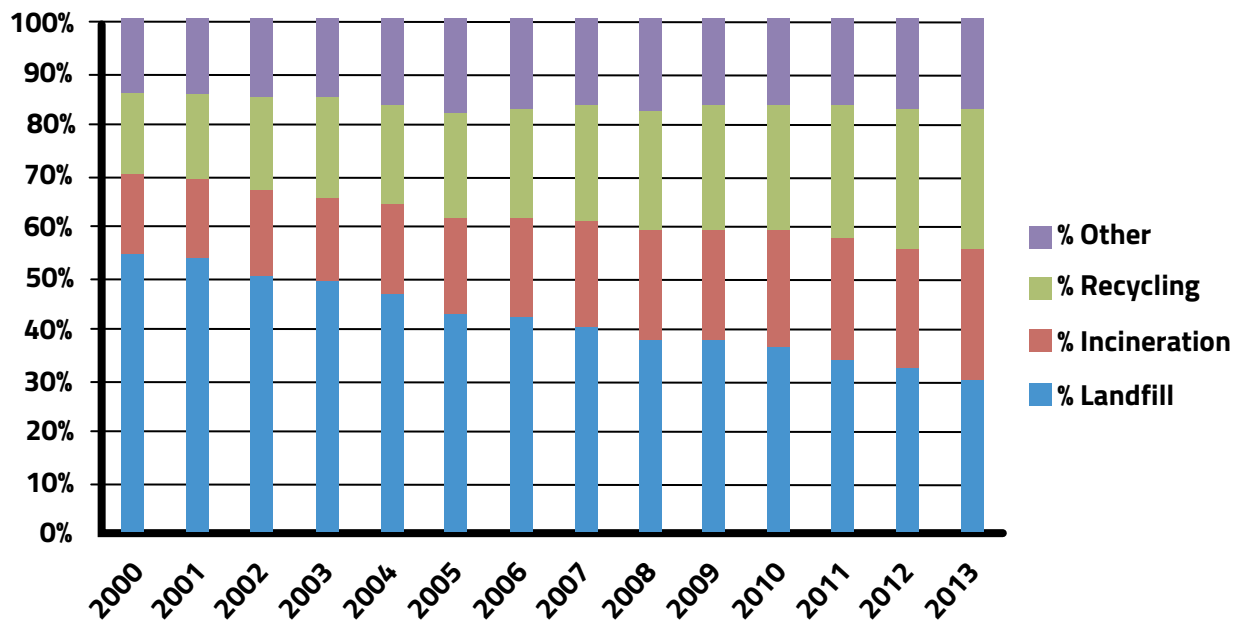
In light of finite resource flows, cities will no longer be able to rely on these linear production and consumption models, where resources come in from one side and waste is dumped on the other. A circular economy approach is an alternative to this model, which aims to keep products and materials in the value chain for a longer period and to recover raw materials after the lifetime of products for their next use.

This new paradigm of a circular economy offers opportunities to cities to improve their current status quo and create a more sustainable development path. Cities have an increasing responsibility and burden to ensure and improve the quality of life of their citizens, which is the essential aim of urban sustainability.

According to ICLEI's definition, a local government can be considered sustainable when it strives to reduce its per capita use of natural resources to a level that endangers neither local nor global ecosystems, and at the same time ensures that political, economic and social systems guarantee a high quality of life for everyone. Reducing and

managing waste is one of the biggest challenges faced by local authorities today. Cities have to deal with increasing amounts of solid waste, electronic waste, food waste and wastewater. Most of the waste is still land-filled and incinerated, leading to environmental damage with multiple impacts (e.g., water, tourism, agriculture). In Europe for example, only 43% of municipal solid waste was recycled in 2013, while 26% was incinerated and 31% landfilled (see Figure 1; Eurostat, 2015c).

Next page: Figure 1. Development of municipal waste management in the EU 27, 2000-2013



Source: Eurostat, 2015c

Recent international agreements acknowledge the crucial role of local and regional governments in tackling these challenges. Apart from the Paris Agreement of the UNFCCC Climate Change Conference (COP21) and Habitat III, it is the 2030 Agenda for Sustainable Development in particular, with one stand-alone goal on sustainable cities and communities, that indicates key measures to achieve this specific goal as part of the envisaged transformation of our world (see Goal 11 of Sustainable Development Goals or SDGs⁴).

Another important SDG addresses sustainable consumption and production (SDG 12), which is about promoting resource and energy efficiency, sustainable infrastructure, and providing access to basic services, green and decent jobs and a better quality of life for all. One of the targets, target 12.7, urges the promotion of public procurement practices that are sustainable and in accordance with national policies and priorities (see next chapter 2.1 on public procurement and circular economy).

Applying circular economy transcends the imperative of not endangering local or global ecosystems defined by the term “sustainability” to not producing a negative impact at all, but instead a positive impact – at least this would be the final goal in its most ambitious approach. To use the definition of the Ellen MacArthur Foundation:

“A circular economy is restorative and regenerative by design, and aims to keep products, components, and materials at their highest utility and value at all times, distinguishing between technical and biological cycles. [...] A circular economy is a continuous positive development cycle that preserves and enhances natural capital, optimises resource yields, and minimises system risks by managing finite stocks and renewable flows. It works effectively at every scale.”⁵

This connotation of a positive development cycle is widely promoted by other organisations such as the Cradle to Cradle™ Product Innovation Institute and its philosophy⁶, with co-founder William McDonough summarising it as *"it is not about being less bad, it's about being more good"*.

According to the 2016 EEA study "Circular economy in Europe", shifting from a linear to a circular economy will have the following benefits:

- Improved resource security and decreased import dependency thanks to reduced demand for primary raw materials.
- Reduced environmental impact: including a drastic reduction in green-house gas emissions.
- Economic benefits: including new opportunities for growth and innovation, as well as savings related to improved resource efficiency.
- Social benefits: ranging from new job creation across all skill levels to changes in consumer behaviour leading to better health and safety outcomes.

In light of these potential benefits and the above-mentioned striking urban impact figures, local governments across the globe are well placed to implement the transition towards a circular economy on the ground, as they have three major advantages: they provide millions of jobs, they are closest to citizens that can be encouraged to participate, and they can deliver swiftly at the local level.

The question remains how cities can transition towards a circular economy model through appropriate policy measures and actions at local level. Public procurement can be one of the measures contributing to this shift, as public authorities have an enormous purchasing power of goods, works and services and can influence and drive the market to deliver products and services that are aligned with the principles of a circular economy.





THE PUBLIC PROCUREMENT AND CIRCULAR ECONOMY

3.1. What is Circular Public Procurement (CPP)?

Public procurement refers to the process by which public authorities, such as government departments, regional and local authorities or bodies governed by public law, purchase work, goods or services from companies⁷. In Europe, public purchasing power makes up a significant share of the EU market, with a total value between 16-19% of European GDP⁸, and has the potential to be a strong driver for sustainability and innovation.

Looking at public procurement from those angles (sustainability and innovation), Sustainable Public Procurement (SPP) can be defined as a process by which public authorities seek to achieve the appropriate balance between the three pillars of sustainable development - economic, social and environmental - when procuring goods, services or works at all stages of the project⁹. To procure in a sustainable way involves looking beyond short-term needs and considering the longer term impacts of each purchase. Sustainable procurement is used by both public and private sector organisations to ensure that their purchasing reflects broader goals linked to climate change, social responsibility, human rights, resource efficiency, and economic resilience, for example (ICLEI 2016).

Public procurement of innovation (PPI), on the other hand, does not have an explicit focus on sustainability, but it has a potential to address sustainability challenges. There may be strong links between innovation and sustainable performance where, for example, new technologies extend the lifetime of a product therefore reducing the need of replacing it in the short term, or where better access to information translates into public services being provided more effectively and inclusively (ibid). Procuring innovation that leads to increased sustainability through the inclusion of environmental and social criteria provides an important contribution to ongoing sustainability commitments such as the SDGs that specifically mention sustainable public procurement¹⁰.

Circular Public Procurement (CPP) is proposed here as an integrated approach to public procurement that acknowledges the need to enable innovation through circular economy principles. CPP can be defined as **the process by which public authorities purchase work, goods or services that seek to achieve closed energy and material loops whilst minimising, and in the best case avoiding, negative environmental impacts and waste creation across their whole lifecycle**. This can be achieved through the promotion of products designed to last longer, with materials that can be upcycled, and by focussing on the use of the products and associated services rather than on their ownership (ICLEI, 2017).

3.2. Assessing the potential of Circular Public Procurement

CPP can play a significant role in the transition towards a circular economy in general and in cities in particular. It can bridge innovation and sustainability, thus leading to a more holistic approach, where innovation embeds all aspects of sustainability.

Public procurers have the ability to influence market development by ensuring a steady demand of products and services designed for a circular economy, especially when joining efforts with other public authorities through joint or cross-border procurements. In addition, the possibility of making savings within public budgets and improving overall environmental performance are powerful benefits in favour of CPP. Framing public procurement in a circular economy frame presents an opportunity to close energy and material loops whilst minimising negative environmental impacts and waste creation across their whole lifecycle as outlined in the earlier definition of CPP.

An EU Action Plan for the Circular Economy (EC 2015) released in 2015 by the European Commission, identified public procurement as one of the key drivers in facilitating the transition towards a circular economy. It announced the intention of the

European Commission to place special emphasis on aspects that could contribute to it, such as integrating circular principles in voluntary EU Green Public Procurement¹¹ criteria.

As is the case with SPP and PPI, implementing CPP would require public authorities to define more complicated and exhaustive criteria in public contracts than criteria based on the lowest price and make use of the most economically advantageous tender (MEAT) approach. The latter is not based solely on price but includes other aspects and externalities that bear de facto costs, such as the amount of greenhouse gas emissions generated during a product's lifetime or whether products are made in ways that create unnecessary pollution or environmental damage. Detelj, Markovic Hribernik and Pihir (2015) argue that including the MEAT criterion is often required if a more innovative solution would like to be purchased, as companies offering complex solutions can often not compete with the lowest prices and do not bother to submit a tender when the lowest price criterion is used. However, in many countries the use of MEAT is not standard practice and present as little as 3% of the total tenders published.

"By choosing products that are energy and material efficient, maximizing lifetime through repair and promoting their reuse before finally recycling, purchasers can both reduce costs and increase their contribution to sustainable development in a direct and practical way"

(Mervyn Jones, Sustainable Global Resources, 2016).

Apart from cost efficiency and environmental impacts, CPP can become a driver of new business models used to deliver goods and services.

"Circular procurement offers not only the opportunity to reduce the cost of materials and energy used, and the often-hidden cost of pollution, but also to stimulate new technologies and business models"

(Mark Hidson, ICLEI, Circular Procurement Conference, Amsterdam, 2016).

Examples for such approaches include the procurement of services related to the use of products, instead of the goods themselves, which are delivered through sharing or leasing models instead of product ownership. Allowing suppliers to retain the ownership of their products during their lifetime and encouraging them to offer services such as refurbishment or refitting of products once their lifetime is over, results in raw materials being retained in the value chain for a longer period and a reduction of the total amount of generated waste.

In tenders, this could be achieved by introducing functional rather than descriptive award criteria, such as specifying the overall performance and the quality of the light in a house rather than the quantity of light bulbs, which could potentially increase innovation in technological product development as well as longevity and reusability of products. This concept is aligned to that of a functional service economy or performance economy, which insists on the importance of selling services rather than products (Stahel and Reday, 1976). Eventually, waste should no longer be regarded as waste in conventional terms but as the harbourer of materials for future products.

These shifts would also encourage a transition from a resource-intensive to a labour-intensive economy, which focuses on keeping the raw materials and resources in the value chain, through a high level of remanufacture, reuse and recycling, rather than extracting more resources from the environment and turning them into waste. This increased economic activity as a result of increasing labour intensity would also be significant to local communities, as product refurbishing usually takes place at local level.



4

CIRCULAR PUBLIC PROCUREMENT (CCP) IN PRACTICE

4.1. Examples from CPP in practice

When it comes to local practice, there are a number of different approaches to CPP. Some of them include the purchase of new circular products, the use of business models that support the circular economy or investments in circular ecosystems (Alhola, Salmenperä, Ryding and Busch, 2017). Different approaches target either the production and consumption of circular products that remain in the value chain for a longer time without degrading or losing their properties or the minimisation of residual waste produced in local communities through increased recycling rates.

Several countries and regions across the globe have integrated circular procurement as a key aspect in their circular economy strategies, such as Scotland¹², the Netherlands¹³ and the United States of America¹⁴. Other countries in the South, such as South Africa, are considering including circular economy elements in their procurement practices and policies.

Approaches to circular procurement from public authorities can also differ across sectors. In the construction and renovation of buildings, there is potential in the introduction of safe materials that can be upcycled, reused or recycled after the building's lifespan, thus leading to a great reduction of generated waste, but also in the way the consumption of resources such as energy or water occurs during the building's lifetime.

In the case of Venlo's new city hall in the Netherlands, designers were involved in the procurement procedure from the beginning of the process and were asked to deliver an energy-neutral building that would use energy only from renewable sources and include a living green façade that would clean the indoor and outdoor air of the building. In addition, the use of appropriate materials which could be recycled after the building's lifespan was also a requirement. This approach led not only to a high quality and sustainable building, but it also meant savings to the municipality in the building maintenance. Public authorities can also exploit the

benefits of circular procurement in other product groups such as office IT equipment, textiles or furniture.

The municipality of Herning in Denmark decided to conduct a pilot initiative in their purchasing contracts for workwear. The municipality had a rental agreement with a company who provided the workwear, including a wash and repair service¹⁵. By defining a set of technical criteria for the recycling and disposal of work clothes and including an additional clause in their rental agreement, the municipality managed to make savings of over 20% of the total contract value and predicted savings of 1,011 tonnes of CO₂ over a four year period – only for approximately 100 employees. Rolling out the results of this procurement to other departments and municipalities in the region would lead to increased savings and further waste reductions.

Other approaches to circular procurement include bigger investments to improve overall waste management systems and performances and promote the consideration of "waste as a resource" through approaches such as industrial symbiosis and circular ecosystems. An interesting example of industrial symbiosis is the Western Cape Industrial Symbiosis Programme (WISP) in South Africa. WISP develops mutually beneficial links between companies from all industrial sectors, so that under-utilised resources such as materials, energy or water from one company can be recovered, reprocessed and re-used by others. WISP is part of GreenCape, a Sector Development Agency established by the Western Cape Provincial Government and the City of Cape Town, established in 2010 (see more details on local practices below).

City Hall Venlo: a building inspired by the principles of the circular economy

Location: Venlo, The Netherlands

Timeline: 2009 - 2016

Approach: The city of Venlo decided to demolish the old city hall and erect a new building that would satisfy the current needs of accessibility and functionality, while delivering at the same time a positive contribution to the town, the staff, the environment and the economy. The new building combines several municipal services in one complex with a total floor space of 13,500 m² including offices, a public hall, meeting rooms and an underground parking. The total investment was €46 million.

A design and build competition was launched in 2009, in which designers were asked to present their vision of a sustainable building, taking into consideration the following key aspects:

- Use of safe and healthy materials that can be recycled after their lifetime;
- Enhance air and climate quality;
- Produce and use only renewable energy;
- Enhance water quality

Throughout the procurement, C2C ExpoLAB provided technical advice in the call for tenders and was a member of the selection committee in several tenders for the selection of the construction company, key advisors and the interior design.

Key success factors:

Market engagement throughout the process, e.g. through market consultation, as suppliers need to understand the requirements before they are able to provide good proposals. Suppliers took also part in several trainings.

Further information:

Case study C2C centre; GPP Example – EU News Alerts

Herning's re-use of workwear

Location: Herning, Denmark

Timeline: 2014 - 2015

Approach: The department of Technical Operations at the municipality of Herning received new work clothes that were discarded once the person resigned or when the service contract for the washing and maintenance of the clothing expired. This led to the creation of unnecessary waste, and the municipality wished to find a new solution that would allow them to reuse staff's workwear.

With this purpose, Herning decided to launch a new procurement procedure that would support them in achieving the following goals:

- Define criteria for the reuse of the workwear, involving the market and the staff using the work clothing;
- Adjust the current textile service contract to increase the re-use and recycling rates of the clothing.

After defining the criteria, two suppliers were approached and presented their bids, including different business models to compare price and contract delivery conditions. The new contract included the possibility of transferring used clothing, which were still in good condition, to the next contract.

Key success factors:

Staff using the workwear and many other relevant stakeholders were consulted and engaged in the criteria development process. This led to many new ideas and ensured acceptance of the new contract.

Further information:

Reusing workwear in Herning – case study GPP News Alerts; Set of technical criteria for recycling and disposal of work clothes (in Danish).

Towards circular procurement in South Africa

Location: South Africa, Cape Town, Thswane

Approach: In South Africa, circular economy initiatives have been developed at local, regional and national level in recent years. At a national level, the Recycling and Economic Development Initiative of South Africa (REDISA) was created to deal with South Africa's tyre waste problem. REDISA receives revenue for every kilogramme of new tyre rubber placed on the South African market. With this money, REDISA can pay individuals and small businesses who register as collectors of old tyres from dealers or from dumps. For tyre dealers, the scheme offers a free-of-charge and convenient way of disposing of the stocks of waste tyres that they build up. Collectors deliver to REDISA recycling depots, where they receive payment for the waste tyres. The material is not suitable for the production of new tyres, but REDISA is currently financing research into different uses for rubber recycling, as well as into eco-design of more recyclable tyres. Prior to the launch of REDISA, an estimated 60 million old tyres were stockpiled or dumped around the country.

At the regional level, the free Western Cape Industrial Symbiosis Programme (WISP) is a free facilitation service, which develops mutually beneficial links between companies from all industrial sectors, so that underutilised or residual resources (materials, expertise, logistics, capacity, energy and water) from one company can be recovered, reprocessed and re-used by others. WISP's helped companies to increasingly value the sharing of resources, to divert waste from landfills, and to more cost savings and jobs.

At the local level, Cape Town is supporting WISP through GreenCape, a Sector Development Agency established by the city and the Province of Western Cape. The aim of GreenCape is to unlock the manufacturing and employment potential in the green economy in the Western Cape. South African cities, such as Cape Town and Thswane, both members of ICLEI's Global Lead City Network on Sustainable Procurement (GLCN), are frontrunners on sustainable public procurement. With the number of circular economy initiatives growing, it is just a matter of time until circular economy requirements will be progressively incorporated in public procurement. The informal economy represents a considerable potential when it comes to remanufacturing, recycling and upcycling.

Further information:

REDISA; GreenCape; WISP; GLCN;

Foster CPP through multi-stakeholder ‘Green Deals’

Location: The Netherlands; Flanders Region (Belgium)

Approach: The Dutch Government launched their Green Deal programme, to stimulate companies and public bodies in their path towards sustainable innovation, by supporting them in the implementation of sustainable initiatives in the field of energy, climate, water, raw materials, mobility, construction and food.

Green Deals are mutual agreements between a coalition of companies, civil society organisations and public bodies, which act as a public-private learning network.

In 2013 a Green Deal for Circular Procurement was launched in the Netherlands with the aim of encouraging the purchase of goods and services delivered in a more circular way. Participants from this Green Deal committed to:

- Participating in at least two circular procurement projects each;
- Exchanging knowledge and sharing the lessons learned in the projects;
- Demonstrating by 2016 that circular procurement had been integrated in their organisation's strategy, policy or procurement processes.

In the three years that it lasted, 45 participants delivered 80 circular procurement pilots and shared their barriers, insights and lessons learned during their implementation.

Following the success of the Dutch Green Deal on Circular Procurement and supported by Dutch partners, the region of Flanders in Belgium has launched in 2017 their own Green Deal on Circular Procurement, engaging over 80 companies and organisations. Participants have committed to jointly deliver over 150 circular procurement projects by June 2019, which will highly contribute to achieving the circular economy goals of the region.

Further information:

Dutch Green Deal Circular Procurement; Flanders Green Deal Circular Procurement; Report with the results of the Dutch Green Deal Circular Procurement (in Dutch).

4.2. Drivers and barriers of CPP

The main aims of public organisations are to deliver services to their citizens in a cost-effective, transparent way and ensure good living conditions for all. Public organisations working to progressively reduce their impact on the environment are in many cases driven by the pressure received from communities and other stakeholders, but also from their own employees or the need to comply with environmental laws and targets. Other drivers described in the UN Procurement Practitioner's handbook¹⁶ include effective organisation wide policies that ensure that everyone is aware of the current strategies and commitment to sustainable development as an organisational policy.

Public authorities are also driven by the need of reducing costs without compromising the quality of the services delivered. In this context, the

approach of CPP of promoting long-lasting design of upcyclable products and preferring business models that focus on the use of the products rather than on their ownership would also serve them to these purposes and it would support them in achieving other policy goals such as improving recyclability targets and reducing the total amount of produced waste. In the case of the market, the main drivers derive from the expectations of achieving benefits associated with CPP such as:

- The opportunity of having more stable demand from public bodies requiring not only the purchase of products but other services such as maintenance or refurbishment of old products;
- Enabling business to develop revenue models that generate value at all parts of the value chain (Van Eijk 2015);

- The opportunity of recovering valuable raw materials from old products that could lower production costs;
- The possibility of reducing production costs through the utilisation of other industries' waste (industrial symbiosis).

Regarding barriers, a number of **cross-cutting barriers** have been identified in several areas concerning the performance of the market, general capacity and awareness to apply the principles of circular procurement in practice and the need of further knowledge exchange. Some of these barriers include (ICLEI 2016):

Market

- The lack (or perceived lack) of circular alternatives on the market. Need to know the market, what's available, what's possible;
- Lack of buyer–supplier interaction (and understanding of how it works) and potential for early market engagement in procurement activities;
- Lack of understanding of alternative business models that can be used as substitution of product ownership;
- Lack of organisational corporation among public procurers as well as SMEs, where close collaboration is needed to promote and accelerate circular public procurement and the development and design of circular products and services;
- Lack of understanding from the market of how public authorities set targets for public procurement.

Regulations

- Insufficient definitions of quality standards for secondary materials;
- Complexity of state aid e.g. when building capacity for suppliers on re-gard to circular procurement.

Capacity and awareness

- Lack of understanding of the potential to include circular economy in the development of products and solutions at companies;
- Lack of understanding of the principles of circular economy at political / senior management / budget holder level;
- Difficulty in the preparation of calls for tenders and purchasing procedures, when including the principles of circular economy.

Communication and information

- Need for exchange of best practices and lessons learned by all levels of government and stakeholders.

Different sectors, product and service groups present different potentials and opportunities to be exploited, but are also associated with specific risks and constraints by specific barriers. In the case of the construction sector, the main identified barriers concentrate on areas such as: insufficient quality and quantity of secondary materials, a fragmented demand for circular buildings and therefore circular products and services, lack of proof of circular concepts and verification methods or insufficient drivers and little urgency to improve resource efficiency (Mul, Roos, Jutte, 2016). Other areas such as ICT equipment present different specific issues to several aspects of circular procurement, e.g. regarding data protection issues in second-hand equipment or technological limitations for the re-use of critical raw materials.

Although some of the barriers require institutional changes, bigger upfront investments or higher political commitment in order to be overcome, many are associated with the field of knowledge development and exchange. For instance, diverting construction and demolition waste from being deposited in landfills and increasing their use as secondary materials is currently a big challenge and could take several years in countries with low

landfill taxes and conflicting national regulations regarding the quality of the construction materials to be used in construction works. However, in countries with high landfill taxes and the appropriate geographical distribution, it can be just a matter of overcoming public procurer's prejudices towards the quality of secondary materials, which can be addressed through awareness-raising campaigns and knowledge exchange.

4.3. Circular economy in procurement – the policy gap

The circular economy model is politically widely acknowledged as a means of achieving an economy that is more in line with the way nature itself works, increases resource-effectiveness and produces a positive impact. In the EU, for example, many EU Directives¹⁷ have included ambitious targets related to the transition to a circular economy, including waste management and preparation for re-use, recycling and re-manufacture. In addition, the 2014 Public Procurement Directives have introduced a range of benefits for public procurers in order to achieve best value for money and integrate environment aspects into tenders, although the new features and opportunities are not yet being applied fully. Despite these directives and numerous events on circular economy, public procurers have been slow in changing their practices.

It is widely recognised that public procurers tend to be risk averse as they need to comply with complex public contract regulations that dictate all steps of the procurement process and are exposed to constant challenges from the market (Uyarra et al 2014). Technical support and advice can help in many cases to reduce this risk-averse attitude, but in others appropriate environments where risks are properly identified and managed would be necessary.

Recently developed policy instruments on circular economy have yet to show the results and calculated benefits on a larger scale (McKinsey&Company 2015), also concerning the development

and implementation of CPP strategies. There is a risk however, that these policies and strategies do not succeed in actually encouraging practitioners to make use of them and apply them on the ground. This is the case with Sustainable Public Procurement (SPP) as it is currently understood, which is far from being applied by all public authorities, even though numerous policies have been developed in the last years. For instance in Europe, despite the encouragement to favour the Most Economically Advantageous Tender (MEAT) instead of the offer with the cheapest price¹⁸, the latter is still being widely applied and MEAT criteria used are often quite conservative. This could be due to the fact that SPP is a voluntary instrument in the vast majority of the countries and its implementation is closely linked to the will of the practitioners and the political agendas of cities and countries.

It has also been noted by ICLEI in the delivery of the EU GPP Helpdesk¹⁹ on behalf of the European Commission from 2010 to 2017 that despite numerous tools, developed guidance and awareness-raising workshops, many public procurers are not yet aware of these tools and the possibilities given by SPP. A stronger focus should be made on calculating the benefits of a circular economy at local level and communicating the practical implications of CPP to practitioners working in the field.

It is too early to say whether circular procurement will follow the same path given by SPP, as even though it seems to be following a similar approach as the one used for the implementation of sustainable procurement in its early days, it also seems that both the private and the public sector as well as civil society identify with circular economy goals and are eager to engage with this philosophy.

CPP can be a powerful contribution towards a transition to a circular economy model and future policy work should aim to address the day to day problems of practitioners and reach all relevant stakeholders in the value chain. However, with few practical examples to refer to so far, most of the policies have yet to bear evidence whether and to

what extent they provide the enabling system for circular procurement acceleration. Many more good practices of circular economy in public procurement need to take place on the ground and cities are best placed to make the change happen as they can act swiftly, provide thousands of jobs in the field and are closest to the people, who can engage themselves in the circular economy.





POLICY RECOMMENDATIONS FOR CPP IMPLEMENTATION

Public procurement refers to all public authorities that need to purchase goods and services, such as local authorities, public institutions and organisations and national or regional governments. The following recommendations address cities as well as other relevant governance levels. The extent to which the policy recommendations can be applied depend among others on the resources and capacities of each organisation, the type and value of procurement procedures carried out, local and regional strategies, etc. As far as the policy making level addressed is concerned, this varies as well – from a city council adopting a circular economy strategy with CPP reference to regional procurement policies to national or supra-national regulations (e.g. at EU level). Funding mechanisms, practice exchange opportunities or tender models with CPP criteria, for example, can be provided by various policy making levels and address different governance levels (local, regional or national procurers).

5.1. Success factors

Analysis of other experiences and multi-stakeholder dialogue prior to tendering

In the City of Herning's example on reused workwear, factors that led to innovative procurement ideas included the analysis of experiences from other cities, and also in other areas, as well as targeted dialogue with important stakeholders from different areas before launching the tender. This recommendation can address stakeholders ranging from technical experts in the field to NGOs, whereas the following success factor is about supplier organisations, manufacturers and other market players.

Strong market engagement prior to the tendering and throughout the process

The City of Venlo, who successfully accomplished a circular procurement of furniture, engaged in a market consultation to inform potential suppliers on the envisaged requirements. The market engagement included training sessions with archi-

tects, buildings contractors, public procurers, technical advisors and product suppliers throughout the lifetime of the project, to ensure that requirements were fully understood and applied. It was especially important to involve the design team at the beginning of the design process.

Experimenting and sharing experiences

As seen in the practice cases included in the document, piloting and stimulating practical implementation is essential in order to manage the implementation of a circular procurement strategy. For instance the "Green Deal"²⁰ model, co-launched by the Dutch Ministry for Infrastructure and the Environment, showed good results with regards to the implementation of circular economy in public procurement and inspired many organisations to experiment with their purchases practices and deliver pilots. In addition, the Green Deal requires organisations to report actively on how they engage in more circular procurement and how they overcome the barriers along the way, which has been highly valued from all participant organisations.

Accessible and/or alternative funding mechanisms for cities

Allocate financial support for circular procurement, represents another enabler for the transition to circular systems, in particular at the stage where cities consider piloting such activities for future uptake. At the EU, several funding instruments are being developed around circular economy, and have the potential to support circular procurement approaches: The Circular Economy Finance Support Platform²¹ was launched in January 2017 by the European Commission and the European Investment Bank (EIB). The Platform aims to bring investors and innovators together and keep up momentum in the transition to a circular economy in Europe. Another major source of funding is European Structural and Investment Funds (ESIF) mobilised through Smart Specialisation strategies.

5.2. Steps towards transformative actions

Awareness-raising and training events

Many recent events and conferences related to sustainable public procurement provided support to practitioners by sharing good practices and lessons learned²². To gain knowledge on circular economy in procurement and learn from others, further awareness raising and training events at European, national, regional and local level can contribute to the further uptake of circular procurement practices. Such events could be linked to existing conference series on procurement or circular economy-relevant market fairs. Improvements in the field of knowledge alone will not address all existing bottlenecks, but could be the way forward to inspire a shift in mind-set among politicians, budget holders and practitioners.

Sharing good practices on circular procurement in cities

In spite of the growing number of public authorities worldwide that have committed to adopting CPP practices and the existing examples, most of the good practices are still unknown to the broader community. In addition, common guidelines and databases compiling relevant resources need to be developed. The good practice of the Danish city of Herning showed the importance of learning from other examples. For an institution such as the European Commission, this could mean setting up a database where case studies are collected. For cities, whether small or large, this could mean peer to peer exchange for circular procurement pilots and initiatives.

Tender models and tender criteria for circular procurement

Public procurers usually do not have the resources to engage in new or innovative tendering procedures. Sometimes they also lack the content-knowledge. Hence, developing circular

procurement tenders and 'circular criteria' (tender requirements and evaluation criteria) for several product and service groups could be very useful for public procurers.

Circular procurement dashboard for public procurers and policy makers

A further step to the previous point would be the development of a circular procurement dashboard, which would equip politicians and/or public procurers with the necessary (technical) information to implement circular procurement. Depending on the size of the public authority, the governance level and the volume of procurements, this could include tools such as: a circular procurement manual for practitioners in one/several fields; case studies (documents or videos); policy briefings for public authorities (benefits, facts & figures); guidance on how to finance circular procurement; e-learning programmes on circular procurement; manuals for market engagement activities; etc.

Piloting and experimenting with circular procurement

One of the main drivers of circular procurement can be successful demonstrations that circular procurement is feasible and can deliver benefits. Piloting and experimentation in circular procurement needs to be conducted and supported at the local, national and European levels.

¹ ICLEI - Local Governments for Sustainability is the leading global network of over 1,500 cities, towns and regions committed to building a sustainable future. By helping the ICLEI Network to become sustainable, low-carbon, ecomobile, resilient, biodiverse, resource-efficient, healthy and happy, with a green economy and smart infrastructure, the organisation impacts over 25% of the global urban population.

² In the EU, the public purchasing power accounts for 16-19% of European GDP.

³ Waste potential! Towards circular economy in cities, 16th European Forum on Eco-innovation, 2014. http://ec.europa.eu/environment/archives/ecoinnovation2014/1st_forum/pdf/ecoap-16th-report.pdf

⁴ For the UN SDGs see <http://www.un.org/sustainabledevelopment/sustainable-development-goals/>

⁵ See ellenmacarthurfoundation.org

⁶ See Braungart(2002) and McDonough and Braungart (2013).

⁷ European Commission, DG Growth website [June 2017]

⁸ European Commission (2015) Public Procurement Indicators 2013. These figures exclude spending by utility companies; earlier estimates (2011) including utility procurement were of around 19% of EU GDP, accounting for more than EUR 2,3 trillion.

⁹ European Commission, Green and Sustainable Public Procurement

¹⁰ See www.un.org/sustainabledevelopment/sustainable-development-goals/

¹¹ For more information see ec.europa.eu/environment/gpp/eu_gpp_criteria_en.htm

¹² Making things last – A circular economy Strategy for Scotland (2016)

¹³ A circular economy in the Netherlands by 2050

¹⁴ USDA Biopreferred Program

¹⁵ Reusing workwear in Herning – EU GPP Example: http://ec.europa.eu/environment/gpp/pdf/news_alert/Issue65_Case_Study_131_Herning.pdf

¹⁶ See ungm.org/Areas/Public/pph/ch04s05.html

¹⁷ See for instance: Directives 2014/24/EU on public procurement; Proposed Waste Directive - COM/2015/0595 final - 2015/0275 (COD); Proposal for a Directive on packaging and packaging waste - COM/2015/0596 final - 2015/0276 (COD); Proposal for a Directive - COM(2015) 593 final 2015/0272(COD) (amending Directives 2000/53/EC on end-of-life vehicles, 2006/66/EC on batteries and accumulators and waste batteries and accumulators, and 2012/19/EU on waste electrical and electronic equipment); Proposal for a Directive on the landfill of waste - COM(2015) 594 final 2015/0274(COD); Proposal for a Directive on the restriction of hazardous substances in electrical equipment - COM(2017) 38 final 2017/0013 (COD); Legislative proposal on online sales of goods - COM/2015/0635 final -2015/0288 (COD); Legislative proposal on fertilisers – COM(2016) 157 final 2016/0084 (COD).

¹⁸ See the EU Public Procurement Directives of 2014.

¹⁹ See europa.eu/environment/gpp/index_en.htm (Note: Despite the 2014 EU Public Procurement Directives encouraging Sustainable Public Procurement (i.e. SPP), the term "Green Public Procurement i.e. GPP" is still more widely used, particularly in EC communications.)

²⁰ See circle-economy.com/green-deal-circular-procurement

²¹ European Commission: Circular Economy Finance Support Platform

²² For example Ecoprocure conference series (ecoprocure.eu), Procura+ Seminar (procuraplus.org), Circular Procurement Congress.

Further reading

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- City of Cape Town: GreenCape.
- City of Herning: Reusing workwear in Herning.
- City of Venlo: Circular Procurement of Furniture in the City Hall of Venlo.
- EU GPP criteria - ec.europa.eu/environment/gpp/eu_gpp_criteria_en.htm
- European Commission – The Circular Economy Package/Action Plan.
- European Environment Agency: Circular economy in Europe — Developing the knowledge base.
- Global Lead City Network on Sustainable Procurement (GLCN).
- Green Deal: Circular Procurement.
- Procura+ European Sustainable Procurement Network - ICLEI's European Sustainable Procurement Network.
- Recycling and Economic Development Initiative of South Africa (REDISA).
- Sustainable Procurement Platform – The online hub for sustainable procurement.
- Western Cape Industrial Symbiosis Programme (WISP).

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ABOUT

The Inno4SD Policy Outlooks series focuses on the horizontal policy issues or transversal topics relevant for public policy supporting innovation for sustainable development. The selected topics are based on questions and issues raised by policy makers and stakeholders active in the Innovation for Sustainable Development (Inno4SD) network.

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- 5. Can eco- innovation respond to NEXUS challenges?**
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The content of each document has been peer- reviewed by experts and by the editorial team of the inno4sd network. The views expressed in each Outlook are those of the authors and not necessarily reflect the views of inno4sd or its strategic partners.

Expressions of interest to contribute to the series are welcomed; please send us your proposals at the email/ contact details indicated at in the back cover of this document.



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The Innovation for Sustainable Development Network (inno4sd.net®) brings together networks dedicated to innovation for sustainable development with the aim of reducing fragmentation and supporting collaboration, whilst engaging policy-makers, research & development, and businesses to achieve the sustainable development goals.

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Contact details



Innovation for Sustainable Development Network - inno4sd

The inno4sd steering board is hosted by the Netherlands Organisation for Applied Scientific Research TNO

Postal Address: PO Box 96800, 2509 JE, The Hague, The Netherlands

Visiting Address: Anna van Buerenplein 1, 2595 DA, The Hague, the Netherlands.

Web: www.inno4sd.net

General enquiries: inno4sd@tno.nl