



THE CIVITAS INITIATIVE  
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CIVITAS GUIDE:

# PROCURING SUSTAINABLE MOBILITY SOLUTIONS

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## IMPRINT

### About

CIVITAS CAPITAL is a 36-month project of the European Commission's Directorate-General for Mobility and Transport (DG-MOVE) funded as part of the CIVITAS Initiative under the Seventh Framework Programme for Transport. Launched in September 2013, CAPITAL will capitalise systematically on the results of CIVITAS and create an effective "value chain" for urban mobility innovation.

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## PURPOSE OF THIS GUIDE

This guidance will introduce readers to the potential of public procurement within the framework of a broader sustainable mobility strategy. Public authorities should rethink how they meet their mobility needs, and how their procurement strategies can have broader positive (or negative) impacts on sustainable urban mobility patterns. Sometimes it might be even wiser to procure a mobility service rather than vehicles.

Readers will understand that public procurement is a cross-cutting topic that clearly has relevance to the CIVITAS Themes of Clean Fuels and Vehicles, Collective Passenger Transport, and Urban Logistics, but also to a number of others.

The publication targets local and regional policy-makers and practitioners in transport and procurement, as well as other interested stakeholders.

The guide provides thought-provoking policy reflections and practical insight from European experts in the field. It builds upon existing initiatives and projects and offers some of the most inspiring good practice examples on sustainable mobility procurement in Europe.

Further information on relevant sources and initiatives at the end of the publication.

## ABOUT CIVITAS

The CIVITAS Initiative is the flagship EU initiative for cleaner, safer, and more sustainable urban mobility and transport. With a primary focus on testing and implementing measures in cities, evaluating their impact and sharing the knowledge and experiences generated from them, CIVITAS promotes a transition to a more sustainable mobility culture in cities. Adding to over 800 measures tested in CIVITAS cities over the past decade, CIVITAS has now expanded to include a growing community of practitioners, policy-makers and experts on different transport topics.

Sustainable public procurement is a topic that touches upon many, if not all, of the 10 CIVITAS themes. The most obvious example is purchasing new vehicles or infrastructure that is more sustainable than traditional alternatives. Procuring services such as public transport vehicles that clean or maintain roads and paths is also a relevant concern for cities and public transport operators. Finally, concepts such as more efficient distribution systems for urban freight and Total Cost of Ownership (TCO), which takes a holistic view of the environmental impact of a product, can be invaluable tools to cities seeking to reduce their carbon footprint.



# BEFORE PROCURING VEHICLES

## ASSESSING THE NEEDS FIRST

There is a risk that only purchasing clean vehicles to contribute to a city's sustainable mobility will have little impact. However, it is likely to be more successful if linked to a broader sustainable mobility strategy.

Few consider the additional costs of vehicles, such as the working hours used for parking, maintenance, and refuelling, and few consider replacing car ownership with transport that links with other mobility options, for example, combining train travel with car sharing or cycling.

What type of frontrunner does a city want to be? Depending on its size and strategy, it may also want to look beyond its borders and contribute to a market shift leading to new technologies and cleaner vehicles.

Sustainable mobility includes far more than just vehicles. It even extends beyond physical transport, when considering for instance remote working or teleconferences as a substitute for travelling to work or meetings.

Sustainable mobility is challenging and the positive impact of single measures – from launching a car-sharing service to introducing electric buses – depends very much on legislation, incentives and local and regional conditions such as the percentage of private car ownership in a city, the climate and how much carbon buses emit compared to cars.

To resolve the issues of traffic congestion and scarce parking, cities need comprehensive

sustainable urban mobility policies. These need to cover all the areas where a public administration can exercise an influence on urban transportation – from municipal fleets, to public transportation services, from the way in which goods and services purchased by the public sector are delivered, to incentive schemes for car-sharing or shifting to alternative fuel vehicles.

## WHAT ARE YOUR ACTUAL TRAVEL NEEDS?

### 1. Assessing your real travel needs

Many factors influence the need to travel and the transport mode used, such as central or peripheral locations and public transport connections. There is usually a potential for optimization through better fleet management. Evaluating travel needs can save money and time:

- Does a city actually need another car or to replace an existing one?
- How many days per year is the existing fleet actually used?
- What is the actual mileage per vehicle?
- How much of the fleet needs simultaneous use?

### 2. Evaluating alternatives

- Can some trips use alternative modes (public transport, cycling, walking, and ride-sharing)?
- When trips need to be done simultaneously, can groups of colleagues travel in smaller or shared vehicles – complemented with public transport, cycling, walking, rental cars and taxis?

### STRATEGY: “Cleaning the city transport by using procurement”

1. Sweep your own house by making your transport demand and related fleet green – for example purchasing electric or hybrid vehicles. This will set an example and provide hands-on experience of handling and maintaining alternative fuel vehicles, which is indispensable when requiring others to follow
2. Require contractors, delivering transport services to the city (e.g. school transports, food to schools etc) to use clean vehicles.
3. Urge front-running companies to follow this good example. If possible, introduce local incentives to strengthen the take-up, and invest in alternative refuelling infrastructure.
4. Raise general public awareness on the alternatives and which are the most appropriate under different usage patterns. Encourage your citizens to consider purchasing a clean car or other alternatives. Incentives will strengthen the take-up.

- How much flexibility is there? Can external carpooling/car-sharing schemes, and rental car or taxi services be contracted?
- Do contracts allow employees to use their own car for work? Can other options replace this to reduce the city's total mileage and influence the employee's choice of travel to work?
- Is car parking free to employees? Could employers consider this as a car travel subsidy? Could parking fees discourage using private cars?
- Are flexible working hours and remote working (e.g. online meetings) options to reduce the need for daily travel?

### 3. Encouraging greener mobility

- Are combined and integrated sustainable mobility passes for employees possible? (See Graph 1). This can include rail fares, car sharing, cycling, free or reduced season tickets and good bicycle parking facilities.
- Are ride-sharing schemes supported?

## WHAT ARE YOUR PRIORITIES?

### 4. Classifying sustainable mobility

- Sustainable mobility should follow principles that encourage a shift to sustainable modes (walking, cycling, public transport) and the use of cleaner fuels and propulsion technologies.

### 5. Choosing between owning and using a vehicle

Leasing instead of owning vehicles may involve lower costs and less time spent on maintenance and administration. Nevertheless, relevant questions include:

- Will you require full vehicle service and maintenance?<sup>1</sup>
- How long will the leasing/time of ownership last?

- What are your corporate tax rules regarding operating and financial leasing?<sup>2</sup>
- Do you have the capacity and the interest for financial leasing?

The concept of sharing transport is also growing. Car-sharing models or a combination of fleet parks with car-sharing models proved to reduce costs for cities (See Good Practice Example 1)

- Could the public fleet be combined or replaced by car-sharing models?
- Could employees use the city's vehicles during non-office hours or could an employer create an open car-sharing scheme whereby the public can use the vehicles in the evenings and weekends?
- Could this reduce costs of parking and ownership? Could it be a way of offering the public a way to test alternative, cleaner vehicles?

### 6. Special vehicles or gadgets

- Do you need a specialist vehicle (for example, for waste disposal), or a standard off-the-shelf vehicle?
- Special vehicles mean larger investments, fewer models to choose from (especially those using alternative fuels) and a small second-hand market; therefore cities should consider owning them for a long time. For standard vehicles, there are many more grades of freedom both in model choice and ownership form.
- Special technology e.g. Intelligent Speed Adaptation (ISA), anti-drunk driving devices, automatic gearboxes, anti-spin systems etc. – may limit your choice of models and reduce the second-hand market value.
- Very environmentally friendly (pre-serial) models can have an additional value as a marketing factor (e.g.: battery-powered lorries have given their operators considerable European attention.<sup>3</sup>)

1 Full service and maintenance means more or less everything that is additional to the basic service – this varies between model and year. Basic service is normally the guarantee service, then you may add almost everything can be added: changing winter decks, deck hotel, reparations, change of windshield wipers etc.

2 Refers to operating leasing versus financial leasing – i.e. whether the leasing firm takes the risk, decides the depreciation costs already from start and include them in the leasing cost – or if the city wants to sell the sell the vehicle after the leasing period. Financial leasing can be the better option of the person in charge knows the market well, as well as the value of the vehicle at the second-hand market, how to assess depreciation in the accounting etc. Operating leasing means higher costs but no unexpected expenses after the leasing period.

3 Heineken Netherlands' success with large electric HGVs for city centre distribution in Rotterdam and Amsterdam

## GOOD PRACTICE EXAMPLES

### Good Practice Example 1: Intelligent mobility management (replacing traditional car fleet)<sup>4</sup>

Managing fleets smartly can reduce CO<sub>2</sub> emissions, improve efficiency and reduce costs. To evaluate the efficiency of the existing fleet, a city should assess the use of all vehicles over an extended period of time. Modern reservation and access technologies allow the use of fleet cars by many different people. Peak demands can be more efficient by using taxis or car-sharing services.

#### Bremen (Germany) - 546,500 inhabitants

As part of a wider climate protection action plan, the city of Bremen's Senate Department for Environment, Construction and Transport wanted to reduce its CO<sub>2</sub> emissions related to business travel. Its car-sharing action plan, the first of its kind in Germany, addressed parking planning and collaborating with the city's public transport operator. It also conducted targeted group-oriented awareness and information campaigns.

The city analysed data from its existing fleet over a four-week period using vehicle logbooks and fleet software. Bremen found that the cars were not used very often (some were not used for a month) and most were used for less than three hours a day. This analysis showed that the city could reduce its number of cars and that a car-sharing service could meet peak-hour demand better, meaning fewer city-owned cars sitting idle. Based on the results of the month-long review, the department would have been able to operate just as effectively with six instead of ten cars.

Bremen decided to replace passenger cars with an external car-sharing service. A cost analysis carried out in 2013 showed that using the external car-sharing service was no more expensive than maintaining leased or owned cars. As well as fleet management, there are costs (often overlooked) related to the time it takes staff time to get cars maintained, washed etc. Vehicle servicing is included in the overall costs of the car sharing operator, so no additional staff time is required to take care of the cars.

Based on the successful three-year trial, the city decided to scrap the departmental fleet and rely fully on the car-sharing service. Since 2013, the department owns no cars, except specialist vehicles for disaster control and water protection. Over approximately ten years, the costs went down from 45.5 euro cents/km to 35.9 cents/km in 2015. By using newer and cleaner vehicles that are regularly renewed, the city has reduced its CO<sub>2</sub> emissions to 102 g CO<sub>2</sub>/km. The system is easy to use and municipal staff members have widely accepted it.



## Good Practice Example 2: Consolidation centres for distribution logistics<sup>5</sup>

### Växjö (Sweden) - 80,000 inhabitants

The municipality analysed how it distributed its goods and services and found that 1900 consignments were conducted by 73 distribution companies every week. It then assessed the viability of bundling deliveries of goods in the city through a report conducted by a logistics consultant.

One of the solutions was to establish a freight consolidation centre (FCC), serving the 450 public premises of the city, such as schools, social care centres, etc. To reduce the number of deliveries in the city and hence the environmental impact, Växjö negotiated a new agreement with just one distributor through a public procurement process. All freight deliveries to municipal units go through the FCC, from which vehicles deliver goods on predetermined routes.

- Deliveries within the municipality have been reduced by 82 percent, leading to:
- A cut of 74 percent in CO<sub>2</sub> emissions per ton of goods delivered
- Lower overall delivery costs
- Less heavy traffic
- Safer and less congested city streets

## Good Practice Example 3: Retrofitting trams for energy efficiency<sup>6</sup>

### Craiova (Romania) - 295,000 inhabitants

One of Craiova's main policy objectives is to increase the overall quality of life of its citizens by reducing pollution generated by transport. In this aim, the city decided to improve the energy efficiency of its existing tramline by upgrading its old trams, rather than replacing them with a new system.

When the project started in 2008, Craiova's tram fleet included 36 tramlines. Nine of these lines, however, were no longer in use due to the high-energy consumption of the driving systems of the trams. Craiova developed tender documents based on research on the modernisation of electrical drive systems and solutions adopted by other transport operators.

To put these trams back in operation, the city aimed to decrease the amount of electricity consumed by the trams (and the related costs) by installing an innovative electronic chopper system (electronic driving system on the trams that consumes less power).

The new driving systems use an onboard computer and software that stores data and processes the tram's energy consumption. The trams were able to reduce energy consumption by up to 40 percent, and provide more comfort for passengers thanks to a smoother start-stop phase.

4 [www.clean-fleets.eu/fileadmin/files/documents/Publications/case\\_studies/Clean\\_Fleets\\_case\\_study\\_-\\_Bremen\\_Car-Sharing\\_integration.pdf](http://www.clean-fleets.eu/fileadmin/files/documents/Publications/case_studies/Clean_Fleets_case_study_-_Bremen_Car-Sharing_integration.pdf)

5 [www.innovationseeds.eu/Policy-Library/Core-Articles/Procurement-Policy-On-Goods-Distribution-Services-For-The-Vaxjo-Region.kl](http://www.innovationseeds.eu/Policy-Library/Core-Articles/Procurement-Policy-On-Goods-Distribution-Services-For-The-Vaxjo-Region.kl)

6 [www.civitas.eu/sites/default/files/civitas-case-study-choppers-energy-saving-trams-craiova.pdf](http://www.civitas.eu/sites/default/files/civitas-case-study-choppers-energy-saving-trams-craiova.pdf)

# GREENING PUBLIC FLEETS

## STEP-BY-STEP: FROM DEFINING CLEAN/ GREEN TO MULTIPLIER EFFECT

Assessing a municipality's actual travel needs (see above) can help make transport and mobility more efficient by reducing the number of vehicles, emissions, costs and noise. This can improve the overall modal split (i.e. boost the share of sustainable modes of transport), air quality and ultimately the quality of life of citizens. However, carrying out public services, such as public transportation, waste disposal, road maintenance, social care etc. will always require the use of vehicles. Buses, for example, remain the backbone of collective transport, accounting for 80 percent of all public transport worldwide (Source: UITP).

In some cities transportation services are carried out by public employees with the administration owning the vehicles, whilst in others the service is fully contracted out – but in either case procurement can be used as a tool for ensuring sustainable transportation is addressed. A thorough needs assessment will equip municipalities with the means to embed public procurement of fleets or transportation services in a wider sustainable mobility strategy. However, to make a real impact, a strategy should give answers to questions such as: who is willing to make a change? Who are the influential buyers? Who are the ambassadors? What are the incentives? Who is willing to deliver fuels and set up the infrastructure?

The Clean Vehicles Directive (CVD) (2009/33/EC) obliges public authorities and certain public transport operators to take into account energy-efficiency, specific pollutant and CO<sub>2</sub> emissions. It entails several options to include this in either the technical specifications or the award criteria of a tender. A review has been announced for 2017 in the framework of the Energy Union.

## DEFINING CLEAN (OR GREEN) VEHICLES

### 1. Start with defining clean vehicles

Being able to define what constitutes a clean, green vehicle is a valuable tool which may be used in a number of ways:

- a) Sustainable procurement of:
  - Vehicles (also when leasing of certain number of clean vehicles)
  - Transport services (e.g. x % of the transport must be made up of clean vehicles)
  - Other goods and services (e.g. contractors may only use clean vehicles in the delivery of the goods and/or service to the public authority)
- b) Incentives towards companies and private users concerning
  - Tax reductions, grants
  - Parking measures
  - Access regulations
  - Taxi priority
  - Environmental zones
  - Congestion charges
- c) Private company fleet policies (influenced and inspired by the city fleet)
- d) Private purchase
  - Information on what kind of vehicle the city uses may encourage some citizens to change.
  - If the city (and/or national government) can make the costs equal to conventional vehicles, or offering compensating incentives/disincentives, the take-up will be large.

### 2. Important features of a definition

- a) Clear and undisputable: "this vehicle is clean, that one is not."
- b) Understandable (even to non-experts), and easy to apply and communicate.

### Examples of definitions

- The UK procurement guide for national public entities
- The Swedish former and current definitions of passenger cars and Light Duty Vehicles (LDVs)

### Good practice examples

- London (UK) congestion charges: electric and ultra-low emission vehicles get discounts
- Oslo (Norway): strong purchase incentives for electric vehicles that can drive in bus lanes, get free parking and receive free charging. There are also high taxes with NOx component on petrol and diesel, high taxes on cars with combustion engine.
- Sweden: Clean vehicles receive tax rebates, and company car tax discounts. Initially, they receive free parking and are exempt from congestion charges. They are increasingly a requirement in transport procurement.

## PROCURING CLEAN VEHICLES AND FUELS

### 3. Progressing gradually when procuring transport services

Start small scale to give the market time to adapt and to avoid reducing competition between tenderers. Start with low requirements and gradually increase demands, for instance by revising criteria every five years through stricter criteria, either within the very contract, or in next contract.

### 4. Issues for discussion

Differentiate according to size? A large vehicle may be necessary for some applications, but may also be used instead of a smaller one. Size is often a decisive factor in how efficient a vehicle is. Ensure you do not oversize.

### Five milestones for cities wishing to progress with procuring clean fleets

1. Define what a clean (or green) vehicle should be.
2. Define a concrete policy for fleets including both final and intermediate objectives.
  - How many green vehicles should there be in one, three, five or 10 year(s)?
  - Divide among every municipal department.
3. Centralise the procuring of vehicles to getobtain expertise and economies of scale. Try procuring jointly with other procurers to reduce costs.
4. Highlight and promote departments that meet or surpass the targets.
5. Once 100 per cent of the vehicles procured are clean, every exception from purchasing a clean vehicle should go through a political board.



## 5. Choices for fuels and clean vehicles

- No single alternative propulsion technology can fully substitute the flexibility and energy density offered by fossil fuels. Cities must therefore work with several alternatives. For example, electric vehicles are good for smaller vehicles making a lot of short to medium length journeys, such as craftsmen and courier services, they are increasingly suitable for buses, taxis or pool cars, but they are less suitable currently for lorries.
- The fully renewable options commercially available are
- electric, biogas and E85, for Light Duty Vehicles (LDV):
- ED95, biogas (also as LNG), FAME<sup>7</sup> and HVO<sup>8</sup>, for Heavy Duty Vehicles (HDV):
- Hybrid-electrics and plug-in hybrid electrics can combine in principle with any fuel, but mainly work together with petrol/E85 for LDVs and diesel/HVO for HDVs.
- Hydrogen currently remains too expensive for large-scale use within public fleets, although this market may develop in the coming years.
- All these fuels and propulsion methods are variable in reducing climate impacts and local emissions, depending on the production method.
- Biofuels must reduce climate gas by 35 percent, a minimum limit that will increase to 50 percent by 2017<sup>9</sup>. It is relatively easy to reduce emissions by 60 per cent by using FAME and 80-90 per cent with HVO, ethanol or biogas, also when using conventional production methods, so requesting a high-climate standard will improve current production.
- Alternatives to fossil fuels are natural gas and LPG, which both offer limited climate gas savings, but some reduction of local pollutants.

## 6. Prioritising procurement requirements

- Procurers have little means to find out real-life emissions and should use certified values as the best figures available.
- There are already other very strict regulations on local emissions such as EURO 6/VI and the certified values differ only marginally between similar vehicles (except EVs).
- Local air quality problems are mainly due to old vehicles in use.

- For example, in Stockholm, 40 percent of the NO<sub>x</sub> emissions originate from less than 10 percent of the vehicles – the oldest ones. Even if new vehicles according to some studies are emitting up to seven times more than promised, they still emit less than older vehicles.
- Prioritising climate performance also prioritises energy efficiency, as the most low-emission vehicles are also the most energy efficient ones. Hence, including a second criteria on energy performance will complicate the definition and may even be counterproductive.<sup>10</sup>
- For heavy-duty vehicles: start simple (e.g. vehicles designated for renewable fuels/electricity/hybrid-electric), gradually making criteria stricter as data become available.

### Electrifying urban buses

Globally, buses are the backbone of collective transport, with bus systems accounting for 80 percent of all public transport passenger journeys worldwide. Electrifying one 18-metre bus has the same environmental impact as about 100 electric cars. Given this key role, urban buses – which run mainly on diesel – need to be a crucial element of sustainable urban transport planning.

Though city buses in most cities do not contribute substantially to the total amount of local and global emissions, changing propulsion method is still a low hanging fruit. Changing a relatively small number of vehicles can result in a relatively large reduction of emissions. Furthermore, using alternative fuels can inspire other companies using heavy duty vehicles to follow and help boost production and the expansion of the local fuelling infrastructure of alternative fuels.

Buses are of course ideally suited for electrification, as they run on fixed routes with known use of energy. As noise – especially at night – is also perceived as a large disturbance, electrification will give further advantages.

See also 'Clean Buses Report - First-hand experiences of fuel & technology options' (February 2014) online at: [www.clean-fleets.eu](http://www.clean-fleets.eu)

# STEPPING FURTHER AND BOLDER

## 1. Going beyond the local procurement/market

- Greening public fleets should be part of a larger strategy. Public fleets of cars and distribution vehicles are too small to influence the market by themselves. However, public bus fleets on alternative fuels will boost the production and may be a necessary customer to guarantee the investment in the local production of biogas.
- Electric buses and hydrogen cars are still in a pilot phase and cities cannot procure them other than in limited quantities. It is however important that some frontrunner cities test these vehicles to provide feedback to manufacturers on their behaviour in real conditions and to find out legal and administrative obstacles. This should take place during controlled projects with a relevant evaluation process. This calls for major investments and possibly legal changes related to who can sell electricity, how to manage the grid, and allowing competing bus companies using the same charging infrastructure.

## 2. Other procurement criteria

Whichever fuel a fleet uses - fossil or renewable - a city can require the contractor to show traceability (supply chain/origin), GHG performance, labour conditions in production, land use/environmental influence and to have an active environmental work.<sup>11</sup>

In Stockholm's case, oil companies in the city initially resisted these requirements. But once

accepted it kicked-off the internal environmental work within the companies.

In the event municipalities require a contractor to use renewable fuels for a designated vehicle<sup>12</sup>, an independent auditor can provide fuelling rates once a year. It is wise to start with low requirements and gradually increase the demand.

## 3. Joint public procurement

Procuring together with other cities can save money (5-10 percent), administration costs and free up resources for hiring a vehicle procurement specialist. However, this avoidance of administrative costs can sometimes lead to paying a different price in terms of flexibility. The potential drawback is the need to agree and possibly negotiate up-front with partner cities on aims and actions. This requires careful planning and removes the flexibility in choosing a model during the contract.

## 4. Innovation (pre-commercial) procurement

Innovation (pre-commercial) procurement (See Good Practice Example 5) can be a solution if a city is willing to follow up a successful pre-commercial solution with campaigns and requirements in procuring transport, and possibly offering incentives.

This is the case with biogas vehicles in Sweden. It can also be a way to give feedback to manufacturers, provided municipalities initiate cooperation with them.

- 
- 7 FAME stands for Fatty Acid Methyl Esters. The molecules in biodiesel are primarily FAMEs, usually obtained from vegetable oils by transesterification. They are used to produce detergents and biodiesel
  - 8 Hydrotreated Vegetable Oil (HVO) is a renewable diesel fuel
  - 9 According to the Renewable Energy Directive 2009/28/EC and Fuel quality Directive 2009/30/EC. New factories must reach 60 percent reduction.
  - 10 A diesel vehicle is more energy efficient than a biogas-fueled vehicle, but emits more GHG. An electric vehicle using lignite is more energy efficient than an ethanol vehicle but emits far more GHG.
  - 11 Provided there is a link to the subject matter and comparability of bids is ensured, this is about requiring an environment strategy going beyond legislation, followed up in an annual report (for SMEs). For larger companies, the requirement can be to be certified according to ISO 140001 or EMAS or equivalent.
  - 12 Designated vehicles are vehicles made for a single fuel such as a biogas vehicle adapted for gas that can normally not drive on diesel. This means no control is needed whether the vehicle uses biogas or diesel. However - with a vehicle made for fossil diesel one can use both fossil diesel and fuels like HVO, synthetic diesel, synthetic petrol, FAME and all mixes in between. As the renewable fuels sometimes are cheaper - provided the operator uses the renewable fuel - 6-month auditing by third party has been a good approach in Sweden.

## GOOD PRACTICE EXAMPLES

### Good Practice Example 4: Joint procurement of clean vehicles Swedish cities

For many years, Swedish cities have procured their vehicles through framework contracts, which gather 100-300 procuring entities and purchase 2,000-3,000 vehicles annually. This means less administration, large discounts and still a large variety of brands and models to choose from. Below is a description of one of these contracts:

A limited business company, Kommentus, owned by a national organisation of cities and regions, operates the procurement network. It currently comprises of 209 procuring cities, regions and city-owned companies. Almost all Swedish cities can enter the contract even after the date of the first signatory.

The network buys about 3,000 vehicles per year (85 percent are mainly passenger cars) and light duty transporters weighing up to 3.5 tonnes. It provides cities with a choice of 20 vehicle brands and over 700 models (including several versions of each model). Cities can also add some special features, such as a special lift for wheelchairs, Intelligent Speed Adaptation (ISA) and anti-drunk driving devices.

The discount for members of the network is an average of 14 percent from general agents. In addition, local distributors give a discount of about 5 percent. In some cases, the discount even reaches 22 percent compared to normal price. The discount is same, whatever fuel is used.

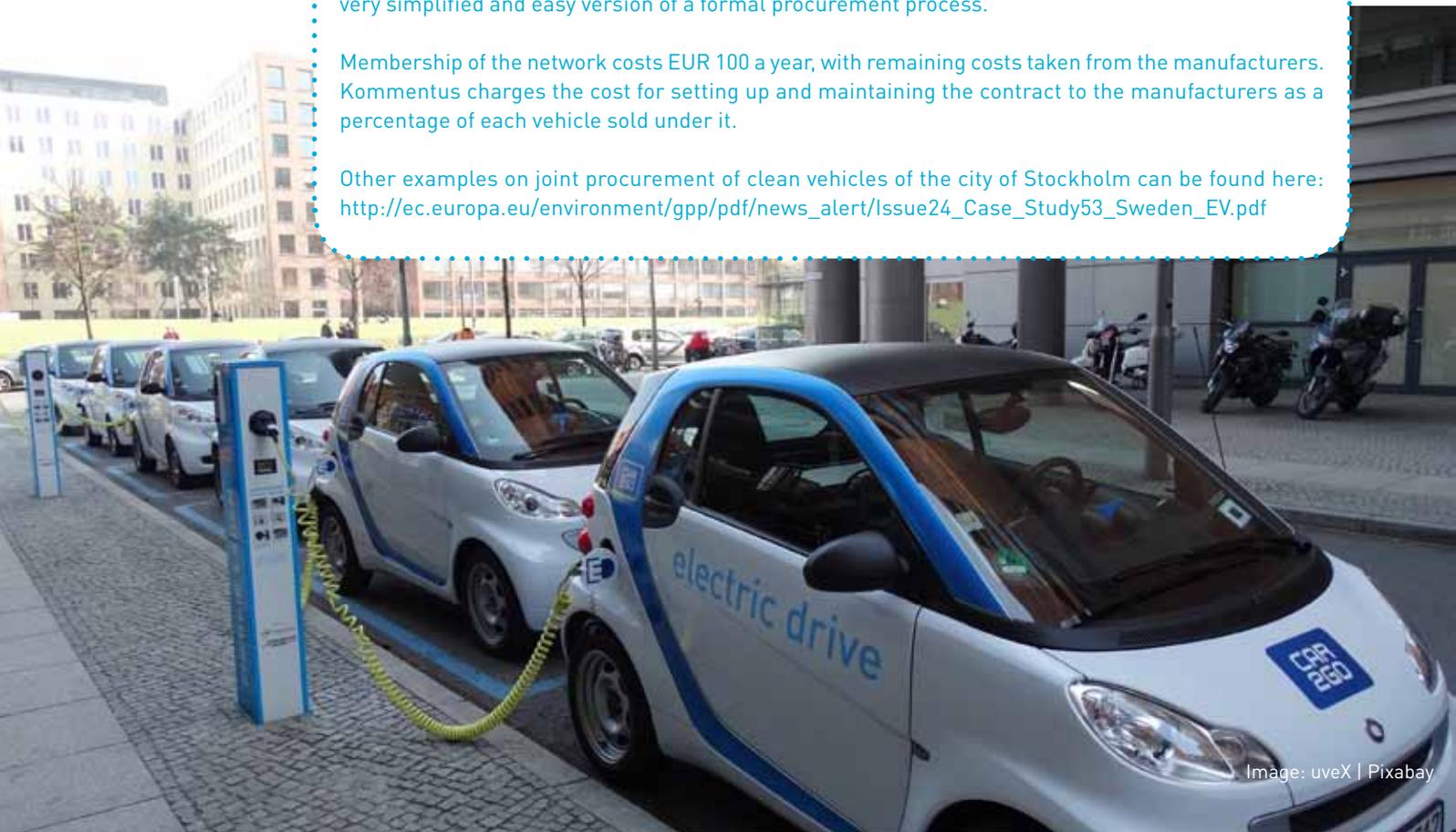
The framework contract negotiated by the procurement network includes both national general agents, and all their local distributors. The framework contract runs for 2+1+1 years.<sup>13</sup>

Cities are free to choose from every offer within the contract and participate in every purchase made by any of the 209 procuring entities.

A city can join the contract as one entity and then every single department can buy individually – there is no central administration needed for purchase. All that is required is a “renewed completion” – a very simplified and easy version of a formal procurement process.

Membership of the network costs EUR 100 a year, with remaining costs taken from the manufacturers. Kommentus charges the cost for setting up and maintaining the contract to the manufacturers as a percentage of each vehicle sold under it.

Other examples on joint procurement of clean vehicles of the city of Stockholm can be found here: [http://ec.europa.eu/environment/gpp/pdf/news\\_alert/Issue24\\_Case\\_Study53\\_Sweden\\_EV.pdf](http://ec.europa.eu/environment/gpp/pdf/news_alert/Issue24_Case_Study53_Sweden_EV.pdf)



### Good Practice Example 5: Pre-Commercial Procurement for Smart Energy and Intelligent Mobility Solutions<sup>14</sup>

#### Cross-border cooperation project between Italy and France

Alcotra, a cooperation project between Italy and France, encompasses the cross-border territory of Regions Rhône-Alpes and Provence-Alpes Côte d'Azur in France and the Regions Piemonte, Liguria and Valle d'Aosta in Italy. One key aim of this cooperation project was to come up with new ways of overcoming technological challenges related to the multiform and decentralised production of electrical energy systems.

The overarching objective was to explore new solutions to currently unsustainable local and renewable energy systems and traffic congestion by testing prototypes in real life situations. Specific aims included finding ways to monitor poor road conditions which can lead to collisions and congestion, along with facilitating the use of cleaner modes of transport such as buses or bicycles.

The regions undertook a pre-commercial public procurement (PCP) to meet the objectives and stimulate innovation. The idea was to combine intelligent mobility and smart energy, and to monitor road networks and innovative parking payment systems integrated with local public transport information systems and vehicle-sharing management systems. The contracting authority emphasised the importance of a sound and consistent open dialogue with the market, citizens and end-users.

- 13 This is the common way to abbreviate when a contract runs for two years, with the opportunity for the cities to prolong it two times, each time one year. A way to not get stuck in suboptimal contracts but keep the opportunity to stay in good contracts.
- 14 Find more information online at: [http://ec.europa.eu/environment/gpp/case\\_group\\_en.htm](http://ec.europa.eu/environment/gpp/case_group_en.htm) and: [www.alcotra-innovazione.eu](http://www.alcotra-innovazione.eu) (Pre-Commercial Procurement for Smart Energy and Intelligent Mobility Solutions)



# GREENING THE TRANSPORT OF GOODS AND SERVICES

## GOING BEYOND GREENING THE PUBLIC FLEET

The number of vehicles purchased directly by public authorities is decreasing as they outsource an increasing number of services to private companies. The Clean Vehicles Directive (CVD) (2009/33/EC) currently only applies to public entities and private operators of public transport services' direct vehicle purchases. However, it does often not apply to private operators contracted by public authorities to provide various services, which involve a significant element of transport – such as road maintenance, school transport, waste disposal, elderly/disabled transport services, and taxi and courier services.

### 1. Assessing your real travel needs

Many factors influence the need to travel and the transport mode used, such as central or peripheral locations and public transport connections. There is usually a potential for optimization through better fleet management. Evaluating travel needs can save money and time:

### 2. Impacting on the overall fleet of the service provider

Furthermore the obligation on public transport operators within the current CVD is restricted to their purchases of new vehicles (i.e. only those vehicles purchased during the contract period), and does not affect the overall make up of the fleet of vehicles delivering the service.

### 3. Replacing or retrofitting older, highly polluting vehicles

In most European cities, a small number of relatively old vehicles – particularly those manufactured before the introduction of the Euro IV standard – cause the biggest problems with regard to air pollution. Public authority measures to replace or retrofit older, highly polluting vehicles could have a substantial impact on the local air quality and ultimately the quality of life in a city.

### 4. Impacting in other ways

Depending on national or regional legislation, cities may have authority over parking regulations and access restrictions regulations and can, for instance, allow longer delivery windows for clean (or silent) distribution vehicles or reserve the closest lane outside railway stations for clean taxis, which is complementary to the procurement contract.



## Introducing clean heavy duty vehicles - Stockholm (Sweden)<sup>15</sup>

### The challenge

Delivery of food to schools with clean vehicles would require companies to change to lorries operating on renewable fuels. These vehicles are still rare and fuelling facilities few. Requesting only renewable fuelled lorries would require a total renewal of most companies fleet and hence reduce competition unfairly. Smaller clean vehicles are available but reloading one lorry to 10 smaller vehicles would be costly and would require school personnel to handle 10 times as many deliveries per day and would also increase the congestion and thus emissions from other vehicles.

In addition, the city is not the only customer to these companies. Requiring only “clean vehicles” according to the city definition would call for a total renewal of any contractor’s fleet, and the city would have to pay also the extra cost for transports for other customers. This was deemed being unreasonable costs and not in line with the procurement legislation.

### The solution

The city’s solution was to require that any contractor using more than five vehicles for transporting city goods (for example, for delivering food) had to use at least one clean heavy-duty vehicle. The result was twofold. Some providers found ways to make their transport more efficient and reduced their fleet used in the contract from six to five vehicles. Others bought a clean heavy-duty vehicle (which, according to Stockholm’s definition was a ED95, biogas or hybrid electric vehicle), thus contributing to a developing market. A third party evaluation showed that this practice did not increase the costs for the city.

## Multiplier effect of gradual green procurement of taxis

Stockholm’s initial green procurement of taxi services required that 10 percent of city trips be with clean vehicles. During the procurement, it announced that next contract would require 25 percent clean vehicles. This progressively increased to 50, 75 and now 100 percent. This soon became a standard and requested by private companies in their use of taxi services. Today almost all taxis operating in Stockholm are clean vehicles, whether they have a contract with the city or not.

<sup>15</sup> Together with Stockholm, Gothenburg developed a Clean Vehicle definition for heavy-duty vehicles, which will increasingly apply to all transport procurements. The definition includes electric, hybrid electric, biogas and ED95-vehicles. In a procurement contract, diesel vehicles using neat FAME or HVO are acceptable, but these vehicles are not included in the definition.

## GOOD PRACTICE EXAMPLES

### Good Practice Example 6: Low-carbon waste collection services<sup>16</sup>

#### Bristol (United Kingdom) - 428,000 inhabitants

In 2009 Bristol City adopted a sustainable procurement strategy, according to which every new purchase that requires a contract undergoes a sustainability assessment and input from the environment team, including recommended GPP criteria. In 2011 the Council adopted a new emissions reduction target for the whole city to reduce CO<sub>2</sub> emissions by 40 percent by 2020, from the baseline year 2005.

For the service contract on waste collection, pre-qualified service providers took part in a competitive dialogue procedure to explore the diverse approaches available within the waste industry. This was also considered the optimum way of achieving high recycling rates, a reduction in emissions and good value for money.

Bristol's waste team set separation requirements for the contract, whilst the environment team set CO<sub>2</sub> reduction targets (aim: 720 tons per annum). The contract began in November 2011 and included the provision of vehicles, staff and depots for waste collection, road gritting, snow ploughing and relevant communication with the public. The city conducted a pre-qualification phase during which it selected candidates according to suitability of their Environmental Management System (EMS).

Six companies expressed an interest in taking part and three were pre-qualified to take part. The bidders' plans to reduce emissions offered similar strategies, with new fleets and altered collection regimes. The winning bid offered a 32 percent reduction in CO<sub>2</sub>, exceeding the council's target of 25 percent. The best estimates for carbon savings stand at 12 percent for the first year of the contract.

In their carbon management plan, the successful bidder committed to replacing the fleet with new multi-compartment vehicles, reducing the number of necessary journeys. They also committed to using telematics equipment within the new fleet to aid monitoring of carbon impacts such as; driver behaviour and associated efficiency; the vehicle's movements in real time to identify delays, reasons for missed collections and better routing possibilities; and load weights, ensuring that vehicles are not overfilled.



### Good Practice Example 7: Procuring eco-innovative catering and food delivery<sup>17</sup>

#### Ghent (Belgium) - 242,000 inhabitants

In 2008 Ghent introduced Ghent 2020, an action plan for sustainability that included more than 105 actions and projects to make it a more sustainable city and set an example within Belgium and Europe. In 2013 Ghent launched a food strategy aimed at making the food system more sustainable.

Part of this was a project on eco-innovative catering, aimed at structuring and coordinating networking, building capacity, disseminating and procuring eco-innovative products/services in the catering sector by establishing a trans-national network of green public and private procurers. The overall objective was to bring together a group of public and private buyers to publish a series of tenders for eco-innovative catering products, services and solutions.

To achieve a more sustainable food production, distribution, consumption and waste treatment by using smart and minimal city transport, the following requirements have been addressed:

- Insertion of sustainable vehicles (HEV, PHEV, BEV, CNG)
- Creation of vehicle pools to optimize the use of cars
- Installation of all-integrated car-management software system

Ghent specified in its last catering tender that energy efficient, hybrid vehicles should be used in the transportation of food. This sent a clear message that energy efficiency and emissions reduction is important to the city.



Image: shnomoe | Pixabay

<sup>16</sup> See online at: [http://ec.europa.eu/environment/gpp/case\\_group\\_en.htm](http://ec.europa.eu/environment/gpp/case_group_en.htm)

<sup>17</sup> INNOCAT Procurement of eco-innovative catering, "A good practice report", August 2015, online at: [www.sustainable-catering.eu/fileadmin/user\\_upload/InnocatReportFINAL\\_interactive.pdf](http://www.sustainable-catering.eu/fileadmin/user_upload/InnocatReportFINAL_interactive.pdf)

## RELEVANT INITIATIVES & SOURCES

### **The CIVITAS Initiative**

[www.civitas.eu](http://www.civitas.eu)

The CIVITAS Initiative helps cities across Europe to implement and test innovative and integrated strategies, which address energy, transport and environmental objectives. So far, projects in 59 cities have been or are being supported. The annual CIVITAS Forum brings together practitioners and politicians from the CIVITAS cities. Dedicated actions help the wider take up of the CIVITAS results.

### **The Clean Fleets project**

[www.clean-fleets.eu](http://www.clean-fleets.eu)

The Clean Fleets project assists public authorities and fleet operators to implement the Clean Vehicles Directive (2009/33/EC) and procure or lease clean and energy-efficient vehicles. It does this by developing guidance and training material on CVD implementation, offering direct support in preparing vehicle tenders, organising European and national workshops and study visits and establishing working groups, an online exchange platform and a helpdesk.

### **Eltis - The urban mobility observatory**

[www.eltis.org](http://www.eltis.org)

Eltis is Europe's main observatory on sustainable urban mobility. Eltis provides and facilitates the exchange of the information, good practices, tools, knowledge and experiences in transport as well as in related disciplines, including urban and regional development, health, energy and environmental sciences. It is financed by the European Commission's Directorate General for Mobility and Transport.

### **Good practice examples on clean transport procurement**

[http://ec.europa.eu/environment/gpp/case\\_group\\_en.htm](http://ec.europa.eu/environment/gpp/case_group_en.htm)

Since January 2010, the European Commission (DG Environment) has collected examples of green public procurement (GPP) in practice to illustrate how European public authorities have successfully launched 'green' tenders, and provide guidance for others who wish to do the same. One section shows good practice examples on GPP in the field of transport and mobility.

### **Sustainable Procurement Platform**

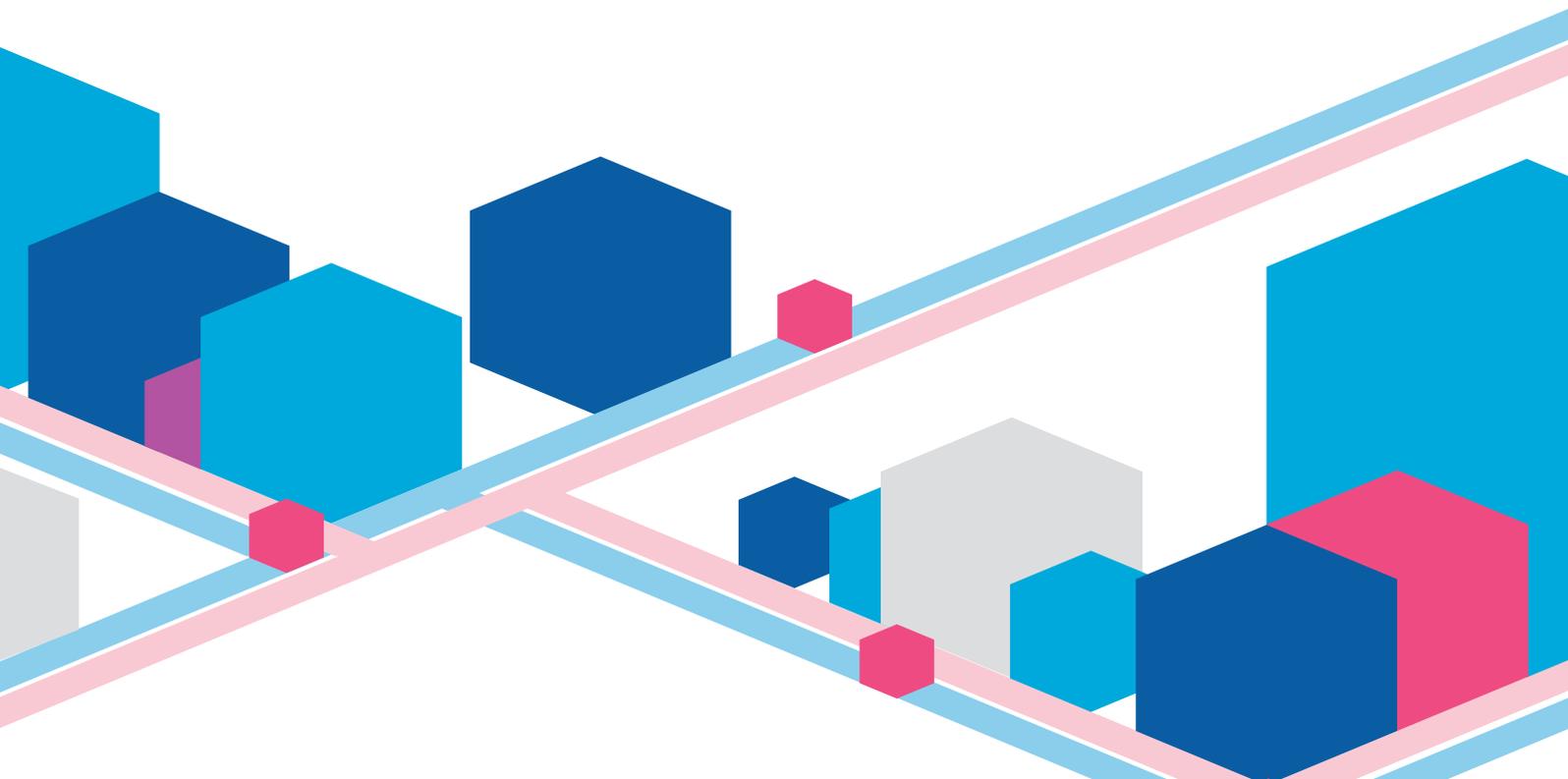
[www.sustainable-procurement.org](http://www.sustainable-procurement.org)

The online hub for sustainable procurement, where you find everything from projects, resources, guidance, case studies, tender criteria, events, etc.

### **Sustainable Procurement Forum**

[www.procurement-forum.eu](http://www.procurement-forum.eu)

A professional social network for procurement professionals to share information and discuss experiences, problems and solutions.





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Cleaner and better transport in cities



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