green in motion

LIFE Project number LIFE15 GIC /ES/000056

U·MOB | European University Network for Sustainable Mobility

Green Procurement in Universities related to sustainable mobility

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Objectives

What are the main goals sought?

- To present the strategic role of Green Procurement for Universities and the benefits it can bring.
- To provide several case studies to demonstrate that sustainable mobility-related Green Procurement is already being successfully implemented across the EU in universities and other public authorities (cities, etc.)
- The final goal within this UMOB project is to promote co-operation between universities in terms of the systematic implementation of mobility-related Green Procurement practices across Europe, and encourage universities to implement green criteria in their procurement processes related to mobility and transport.

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What does Green Procurement mean?

It refers to the **procurement of products and services** that have a lesser or reduced **effect on human health and the environment** when compared with competing products or services that serve the same purpose.

Some examples, to take into account in purchasing decisions considering a sustainable overview, may be:

- consider goods and services that can be manufactured, used and disposed of in an environmentally-responsible way;
- give preference, where items are of a similar cost, to those that are manufactured with a high recycled content or those that can be can be recycled or reused;
- consider the energy usage/cost of operating equipment before purchasing from favourite suppliers that are committed to environmental improvement;
- consider 'whole life' costs and impact when assessing equipment for purchase;
- green purchasing is not always about buying greener products. It may simply mean buying less.

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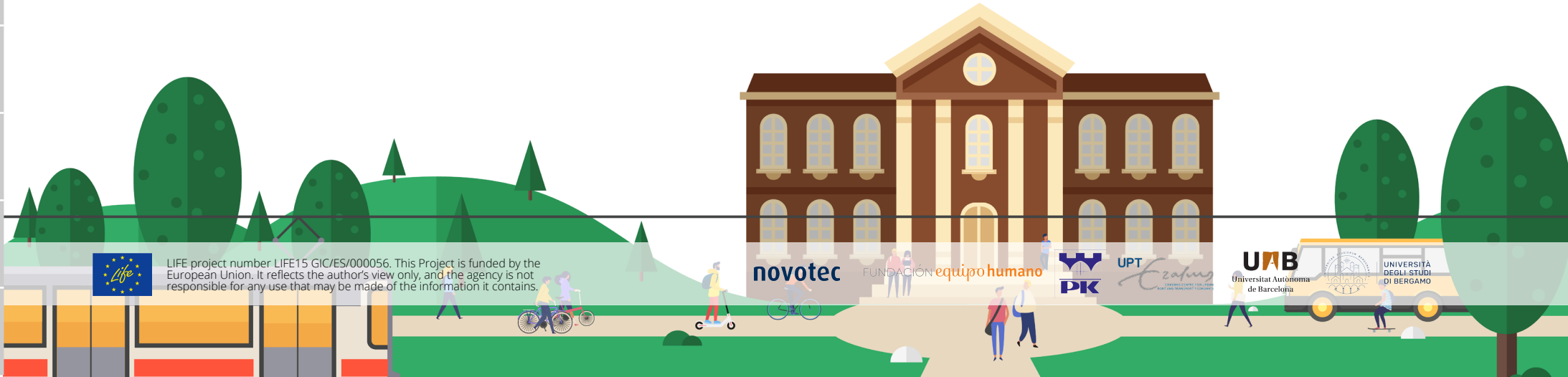
Green Purchasing and the Public Authorities

The authorities are major consumers of products and services. By using their **purchasing** power to choose environmentally-friendly goods, services and works, they can make an important contribution to sustainable consumption and production. This process is called **Green Public Procurement** (GPP).

> **GPP is...** ***"a process whereby public authorities seek to procure goods, services and works with a reduced environmental impact throughout their life cycle when compared to goods, services and works with the same primary function that would otherwise be procured".***

- GPP can be a tool for addressing different policy objectives. It can bring important benefits.
  - It sets an example to the general public and the private sector, and demonstrates the public sector's commitment to the environment.
  - It also raises awareness of environmental issues.
- GPP requires the inclusion of clear and verifiable environmental criteria for products and services in the public procurement process.
- There are several case studies to demonstrate that GPP is already being successfully implemented.



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Green Procurement and the Public Authorities: Regulatory background

Procurement is considered by the EU to be a key tool for promoting environmental and other societal goals.

This is the main **EU GPP Policy & Regulatory Framework:**

- ☐ Public Procurement Directives **(2014)**
  2014/23/EU, 2014/24/EU and 2014/25/EU: Procurement Directives must be implemented in national law but are binding as to the objectives they set out and can have direct effect even where they are not fully implemented in national law.

These introduced important new **provisions for GPP regarding environmental issues:**

- Ability to specify **production processes and methods.**
- Extension of **environmental management systems.**
- Greater ability to rely on **eco-labels**; New rules on **life-cycle costing**.
- Ability to reject tenders which do not comply with **environmental and social obligations**.
- Ability to reject **subcontractors** who do not comply with environmental and social obligations.

Other EC policies and recommendations include:

- ☐ **EC Communication (2017):** Making Public Procurement work in and for Europe – key priorities include:
  - Ensuring wider uptake of innovative, green, and social procurement.
  - Boosting the professionalism of public buyers.

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Green procurement in universities related to mobility and transport

Universities are public and private **authorities** that buy a significant range of goods and services with environmental impact.

- Green Procurement at universities is a **tool that can be used to address a wide variety of policy goals** (becoming a CO_2- neutral place, enhancing sustainable urban mobility, developing a local and circular economy, etc.)

Green Purchasing at universities can affect environmental impact:

- **Directly** – through improved environmental performance of goods, services and works bought.
- **Indirectly** – through using this market leverage to encourage companies to invest in cleaner products and services.

Some of the **products and services bought by universities** are directly **related to mobility and transport** issues, such as:

- Purchase, lease or rental of vehicles for the university community.
- Transport and mobility services at the university, including inter-campus university buses, bicycles, car sharing, etc.
- Other services for the university (i.e. vehicles used in facility maintenance services, cleaning services, goods delivery/suppliers, etc.).

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What is the negative impact on the environment?

These purchases may have **environmental impact** related to **non-sustainable transport**. The main impact includes:

- Pollution from university-owned vehicles, running university services or delivering products for the university.
  - Greenhouse emissions (CO_2) – GHE - related to road transport > Climate change.
  - Other toxic air emissions.
  - Noise.
- Non-renewable material consumption (resource depletion through fuel consumption by vehicles).

What are Green Procurement benefits for universities?

GP procedures can be applied in them in order to make the most of their benefits:

- Meeting green policy goals regarding the environment: climate change, air quality, energy efficiency, etc.
- Increasing financial efficiency.
- Enhancing organisational reputation.
- Reducing risk of non-compliance with legislation.
- Encouraging innovation and the development of competitive sustainable solutions in the region.

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In particular… How can Green Procurement help with this negative impact on the environment?

Reducing CO_2 emissions, noise and fuel consumption by:

- Shifting to **zero-emission vehicles** (or at least, to less polluting vehicles), such as electric vehicles, bicycles, etc.
  - Suppliers should be encouraged to do the same with their own vehicles / machinery.
- Reducing transportation distances by buying goods/services locally.

But… what are the main barriers at present to starting Green Public Procurement?

- Lack of political support in the public authorities such as universities.
- "Green" products and services are perceived as more expensive; however, while applying environmental criteria to procurement procedures can sometimes mean higher initial purchasing costs, the overall costs often actually decrease since the higher purchasing prices are offset by lower operating and maintenance costs.
- Lack of legal expertise in applying environmental criteria for purchasing particular products or services.
- Lack of practical tools and information / Lack of training of staff responsible for specific tasks regarding GPP.
- Limited established environmental criteria for products/services: For many products and service groups, the public authorities do not have access to clear and verifiable criteria that enables them to incorporate environmental considerations into their tenders.
- Lack of co-operation between authorities in terms of the systematic implementation of GPP across Europe.

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Green procurement process: Steps to follow

The aim of this section is to provide information on how to include environmental and sustainable considerations in the stages of the procurement process.

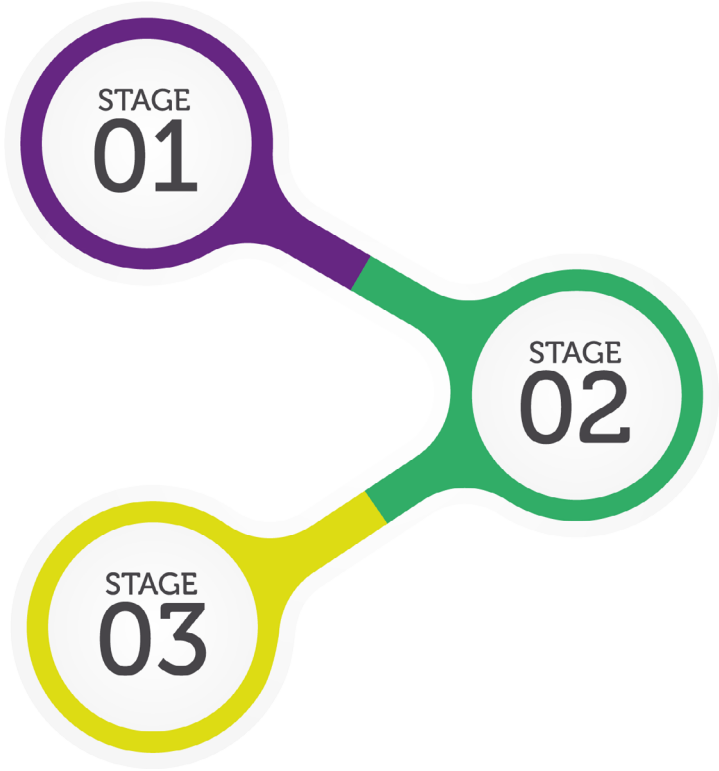
Define principles and a GP strategy

Main principles to take into account to implement successful green procurement procedures in universities related to transport and mobility purchases are mostly the same as those applicable to any Green Public Procurement (GPP) process.

A procurement strategy in Green Procurement will help universities integrate sustainability into procurement activities over the longer term, providing:

- Clear targets.
- Responsibilities.
- Continuous improvement.

Using the strategic approach proposed by the *EC* in its *GPP training toolkit* (https://ec.europa.eu/environment/gpp/toolkit_en.htm) as a reference, the main stages to implementing a green procurement process in a university may include:



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STAGE 1 | Preliminary activities

STEP 1 | Identify the need and carry out a need assessment

Consider whether a product/service is needed before purchasing it or not.

Need assessment helps choose the most appropriate specification for meeting the defined "green requirements" to be taken into account in the procurement.

STEP 2 | Identify possible good practices in GPP and explore current practices at the university and existing procurement requirements and practices > Present decision-makers with real-life examples of these successful GPP.

STEP 3 | Identify the procurement structures within the organisation and the best opportunities for implementing Green Procurement.

STEP 4 | Gather support for GP > It is important to remain in permanent contact with all those involved in and/or influenced by the GPP procedure.

STAGE 2 | Management

STEP 5 | Define the GP strategy

1st Set scope and targets

- Identify the SCOPE of the GPP strategy and define priority categories for GPP by considering:
  - Environmental, social and economic priorities.
  - Budgetary importance of product/service groups.
  - Level of skills and resources available.
  - Existing experience in procuring sustainably.
  - Significant contract renewals.
  - Market availability of sustainable options.
  - Political or legal drivers (e.g. national legislation).
- Determine TARGETS and the key performance indicators (KPIs) you will need for assessment.

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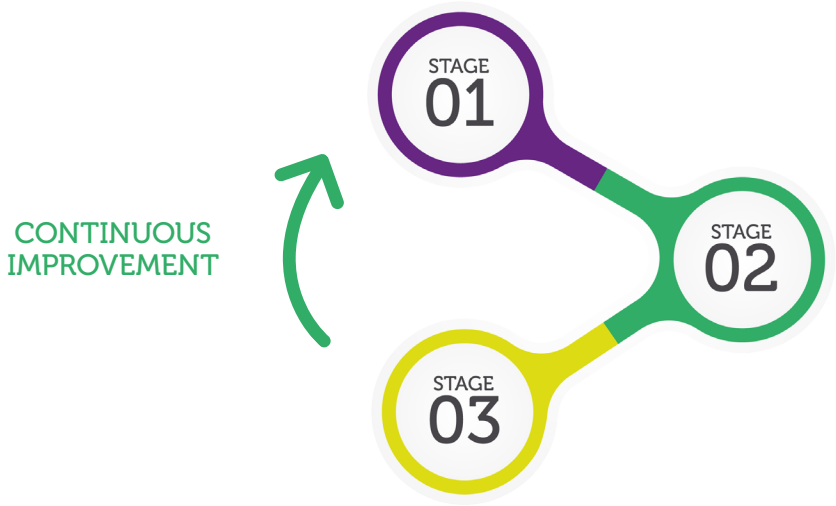
2nd Develop and launch a strategy > Create an Action Plan to provide clear, practical details on how the targets will be met.

- Identify appropriate environmental/social purchasing demands (user consultation to obtain valuable information).
- ***Procurement actions***: Incorporate these demands into actual tender documents as ***green criteria*** or green requirements.
  - Strategy communication and awareness are essential, both internal and to external stakeholders, especially **suppliers**.
  - ***Market engagement* is required** > Identify potential bidders and/or solutions, build capacity in the market to meet the requirement(s), and inform of the design of the procurement and contract.

STAGE 3 | Monitoring and assessment > Regular *performance* monitoring of the process.



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Green procurement process: Green criteria to be included

GP criteria are environmental criteria that address environmental impact and are designed to be used in procurement procedures.

How to define and include criteria in Green Procurement processes (tenders)?

- Tender documents and all criteria applied must be clear.
- Integrate minimum GP criteria into the system. These must be continually improved on and updated based on procurer capacity and market evolution.
- Procurement criteria and decisions must:
  - be appropriate to meet the objectives they pursue;
  - not go beyond what is needed to attain those objectives.

Environmental criteria to be included in a tender through:

- Selection criteria:
  - Technical specifications.
  - Award criteria.
- Contract performance.

All criteria must be linked to the subject-matter of the contract.

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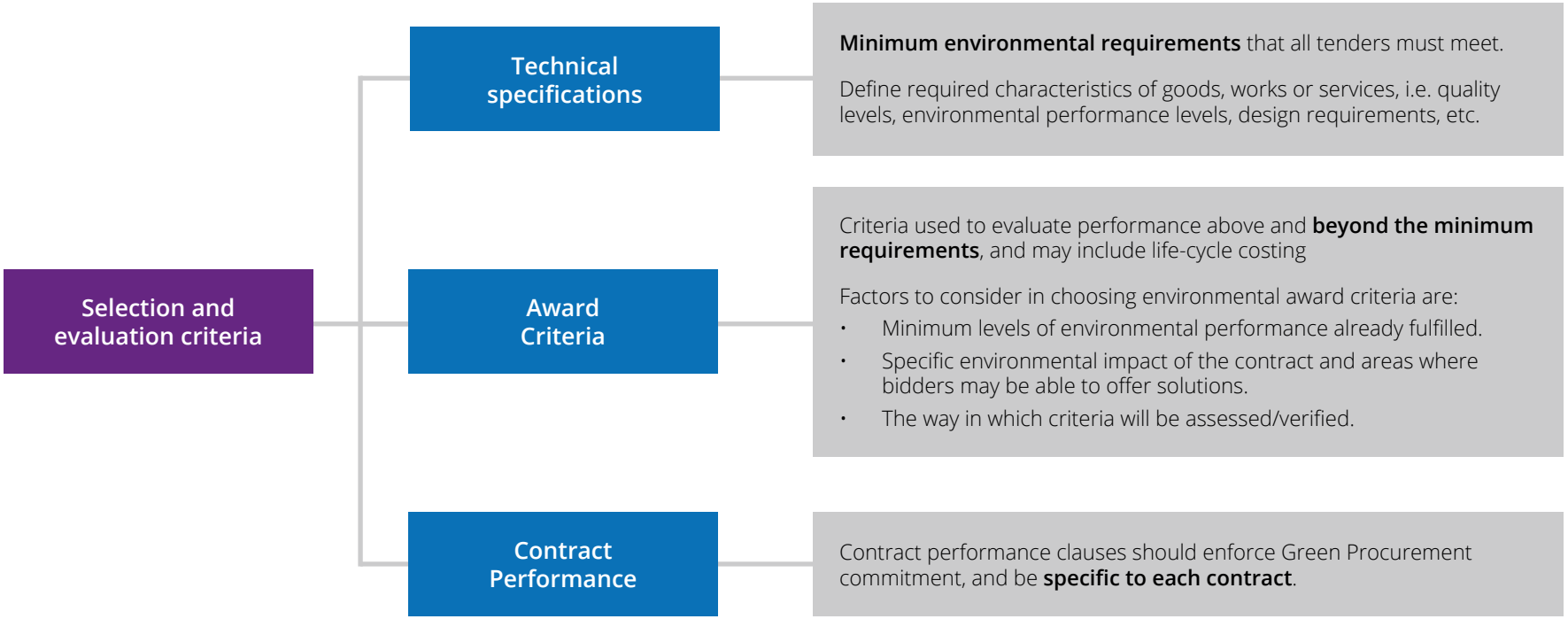
There are several options for including green criteria in the procurement process:



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Good practices in green procurement for mobility and transport

Some examples of measures to be considered in a green procurement process associated with acquisition of transport and mobility products and services for universities are:

- **Acquisition of vehicles:**
  - Increase the percentage of low-emissions vehicles (electric, hybrid or gas-powered cars and vans) or zero-emission vehicles (ZEV) (including both battery electric vehicles (BEV) and hydrogen fuel cell battery electric vehicle (HFCBEV)).
  - Take into account the preferences for vehicles to be acquired in the requirements defined in the preliminary phase of all tenders for suppliers.
  - Develop a Vehicle Purchase Plan that excludes the acquisition of diesel-powered cars and vans as one of its main objectives.

Consider Directive 2009/33/EC for CLEAN VEHICLES (2009)

This requires that energy and environmental impacts linked to the operation of vehicles over their entire lifetime be taken into account in all purchases of road transport vehicles.

For more information: Clean Vehicles Directive website.

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Some good practices to be taken into consideration in green purchasing related to procurement of transport and mobility products and services for universities are:

- **Reducing itineraries:**
  - Purchasing from local suppliers/contractors.
  - Optimise the transport/delivery itinerary so the total distance travelled is minimised.
  - Use logistics companies with fuel-efficient vehicles and drivers with eco-driving training.
  - Switch to holding a certain proportion of meetings via tele/ video conferencing with service providers rather than face to face, avoiding travel.

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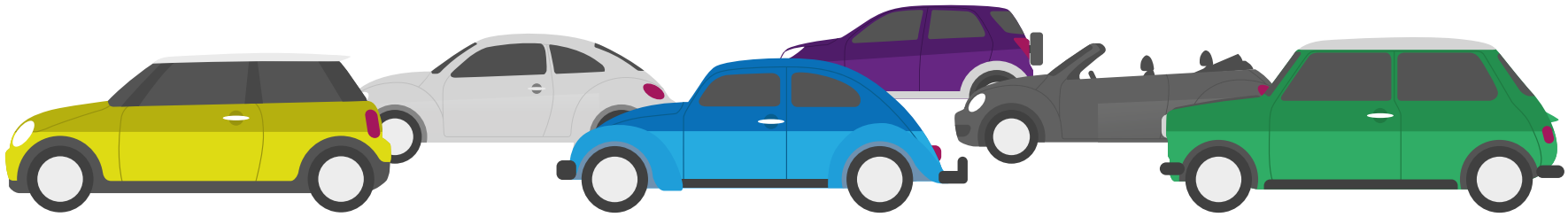
Green Procurement Criteria on sustainable mobility

Some **environmental criteria** to be considered in green procurement related to mobility are those associated with:

1. **VEHICLES:**
    - Type-approval CO_2 emissions (CO_2 g/km) for cars and LCVs, and specific technologies for heavy-duty vehicles and L-category vehicles – i.e. Set a minimum or/and a decreasing rate of g CO_2/km during the contract.
    - Air pollutant emission performance for cars and LCVs; specific technologies for heavy-duty and L-category vehicles.
    - Energy efficiency for electric cars and LCVs; battery warranties.
    - Vehicle and tyre noise emissions.
    - Types of tyre (i.e. tread resistance) and lubricants for maintenance activities.
2. **Environmental MANAGEMENT also helps reduce existing vehicle CO_2 and other polluting emissions:**
    - Fleet management efficiency: Regular vehicle maintenance.
    - Application of key environmental management measures and practices from service providers.
    - Adequate and frequent training of the service providers' staff, i.e. training in eco-driving.
    - Route management for goods delivery (reducing distances) – Enhancing local purchases.



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Some examples **for incorporating green criteria into the procurement documents**:

- **Selection criteria (SC)** *[to assess the ability of an operator to perform a contract]* – examples for services:

  The tenderer must have relevant experience in: identifying, evaluating and implementing the available technologies and measures to reduce GHG emissions and air pollutant emissions; and monitoring and reporting procedures for the GHG emissions.

- **Technical specifications (TS)** *[used to set minimum requirements that must be met by all tenders]* – example for electric vehicles:

  It must provide a minimum battery warranty of 150,000 km or 8 years against capacity loss below 70% of its original value at delivery.

- **Award criteria (AC)** *[used to stimulate additional environmental performance, but not mandatory]* – examples for cars, LCVs, or L-type vehicles:

  Points awarded according to the range the car can travel without any exhaust emissions, in proportion to the capability of the vehicles.

- **Contract performance clauses** *[specify how a contract must be implemented]* – These may include GPP elements, i.e. in a maintenance service agreement, responsibility of the main contractor and subcontractors regarding environmental protection.

  Examples for:

  - ***Service agreement***:
    - Drivers involved in providing the service for the duration of the agreement must be trained in increased fuel efficiency (i.e. training in eco-driving).
    - Staff training in environmental aspects of the agreement; monitoring and reporting environmental impact; applying an Environmental Management System.
  - ***Supply contract***: Requirements on frequency / distance of deliveries; type of vehicle used for delivery.

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Some of the previous examples are based on information provided in Module 7.9: Road Transport of the European Commission GPP Training toolkit, which Includes GPP criteria, environmental impact, and green alternatives.

More information can be found on the European Commission's GPP website: https://ec.europa.eu/environment/gpp/pdf/toolkit/presentations/7_9_Road_Transport.pptx

'The EU GPP criteria are developed to facilitate the inclusion of green requirements in public tender documents.

While the adopted EU GPP criteria aim to reach a good balance between environmental performance, cost considerations, market availability and ease of verification, procuring authorities may choose, according to their needs and ambition level, to include all or only certain requirements in their tender documents' (EC)

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CASE STUDIES (I)

UNIVERSITIES: Acquisition of more environment-friendly vehicles (electric, hybrid, hydrogen fuel, bikes, etc.)

UNIVERSITY	CASE STUDY: Green procurement related to sustainable mobility
University of Salamanca – USAL - (Spain)	USALe Project
LUISS "Guido Carli" University – Rome (Italy)	Integrated services (ebike, ecars, emotorbikes) for sustainable mobility projects with ICT platform
University of Birmingham (United Kingdom)	Sustainable fleet
Pompeu Fabra University – Barcelona (Spain)	eFurgo
Oxford University (United Kingdom)	Fleet management (Ultra Low Emission Vehicles)
Utrecht University of Applied Sciences (The Netherlands)	E-cars and e-bikes for business-related travel
University of Valladolid (Spain)	Promotion of Free bicycle sharing and electric vehicles

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Case study 1 – University of Salamanca (USAL): USALe Project

WHO?

COUNTRY	LOCATION	SIZE
SPAIN	URBAN UNI - Salamanca city	39,735 people

WHAT?

Acquisition of a fleet of 5 electric vans for **Internal Mail services** (General Secretariat) and Maintenance (Technical Infrastructure Unit), for transporting goods and people between university campuses.

Implementation of a Network for topping up **institutional electric vehicles** on different university campuses.

WHEN?

- 2010: Financial and environmental feasibility analysis for the implementation of electric vehicles => Study of initial brands involved in the development of 100% electric models, vehicle autonomy, charging infrastructure needed, cost, etc.
- 2012: Acquisition of 5 electric vans (Renault Kangoo Z.E.) and commissioning of USAL electric vehicles (training of the staff involved - drivers, managers, mechanics, etc.).
- 2014: Inauguration and opening of the USALe Network. Previously, design and installation of the electric vehicle charging network at USAL.

Agreements...

- For purchasing the electric vans: grant from the Institute for Diversification and Energy Saving, IDEA (Spain).
- For the implementation of the electric vehicle charging network: agreement with the electricity company IBERDROLA.

More information
http://u-mob.eu/wp-content/uploads/2018/04/BP.33-EN.pdf

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Case study 2 – Case study 2 LUISS "Guido Carli" University: Integrated services for sustainable mobility projects with ICT platform

WHO?

COUNTRY	LOCATION	SIZE
ITALY	Rome, 3 sites	8,500 students

WHAT?

In line with the concepts of smart grid and e-mobility, it will exploit the potential of the B.O.M.T.S (Banking Operation Maintenance Telematics Security) ICT platform by implementing smart charging stations, E-Car sharing, E-Bike sharing, E-Scooter sharing:

- 9 smart charging stations for electric cars, along with the supply of 18 electric cars.
- 6 smart charging stations for electric bicycles, along with the supply of 24 electric bicycles.
- 3 smart charging stations for electric scooters, along with the supply of 12 electric scooters.

- All electric vehicles are equipped with an internal black box, "real-time communication" and management platform through B.O.M.T.S.

WHEN?

- 2016

More information
http://u-mob.eu/wp-content/uploads/2018/04/BP.27-EN.pdf

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Case study 3 – University of Birmingham: Sustainable fleet

WHO?

COUNTRY	LOCATION	SIZE
UNITED KINGDOM	URBAN UNI - Birmingham city	7,000 staff and 33,000 students

WHAT?

Sustainable Fleet:

- 102 Vehicles
- 27% Fully Electric
- Hydrogen Fuel Cell
- Hybrid

Infrastructure in place

- **University Fuel Station**
- **Electric Charging Points**
- **Hydrogen Fuelling Station**
- **Planned Rapid Charger**

WHEN?

- 2007 - 1st Electric Vehicle
- 2010 – 7 Mega Vans
- 2014 – Introduction of Nissan/Kangoo
- 2016 – Increase to 22 EVs
- 2017 – 27% Zero-emission fleet
- 2020 – 40% Target

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Case study 4 – Pompeu Fabra University: eFurgo

WHO?

COUNTRY	LOCATION	SIZE
SPAIN	URBAN UNI - Barcelona city	15,000 students

WHAT?

- Purchase of a van for internal mail and short urban trips.
- This is an electric vehicle.
- The university made the most of this opportunity to communicate and promote this type of technology.

WHEN?

- 2016

More information
https://www.upf.edu/web/upfsostenible/pla-de-mobilitat

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Case study 5 – Oxford University: Ultra Low Emission Vehicles

WHO?

COUNTRY	LOCATION	SIZE
UNITED KINGDOM	URBAN UNI - Oxford	35,000 people (22,000 students + 13,000 staff)

WHAT?

- In its **Transport Strategy**, the University has identified that its fleet had approximately 70 motorcycles, cars and light vans which had the potential to be replaced by hybrid or electric vehicles.
- Through a review of the use of the current fleet - Identification of main sites of operation, daily distance covered, load-bearing capacity and necessary effective range, as well of those vehicles with the greatest scope to be incrementally replaced with lower-carbon options.
- Now, the University is increasing the **uptake of Ultra Low Emission Vehicles (ULEV) in the fleet of 148 road-goingvehicles**, and sharing fleet assets.

WHEN?

- Since 2015

Current results...

- 10 road-going ULEV (all full electric).
- 7% of the road-going fleet are zero-emission ULEV.

Goupil G5 Electric Tipper

More information
http://u-mob.eu/wp-content/uploads/2018/05/BP.35-EN-v2.pdf

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Case study 6 – Utrecht University of Applied Science: E-cars and e-bikes for business-related travel

WHO?

COUNTRY	LOCATION	SIZE
The Netherlands	URBAN UNI - Utrecht	40,000 students and 3,500 staff

WHAT?

- Acquisition of bikes, electric bikes, and electric cars that can be used by staff for business-related travel.
- Financial incentive for employees who buy and use their e-bikes at work (discounts and bike-for-your-bonus-by using your e-bike-to work-incentives, together with the Dutch Ministry for Infrastructure & Mobility).

WHEN?

- Since 2012

More information
http://u-mob.eu/wp-content/uploads/2018/04/BP.7-EN.pdf

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Case study 7 – University of Valladolid: Promotion of Free bicycle sharing and electric vehicles

WHO?

COUNTRY	LOCATION	SIZE
Spain	URBAN UNI - Valladolid	26,524 people

WHAT?

- Implementation of a free bicycle sharing system for all the university community (bicycle loan) through the acquisition of bicycles.
- Acquisition of a electric van for the internal mail service, followed by another; and the acquisition of electric bicycles, 10 currently being available.
- Installation of charging points at different campus.

WHEN?

- Bicycle Loan system: 50 bicycles acquired in 2011, another 50 bicycles acquired in 2011, 20 in 2011, and 20 in 2013 and 2014, and then 40 in 2015 and 2016 up to the current total of 200 bicycles.
- Acquisition of electric vehicles since 2014.

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CASE STUDIES (II)

UNIVERSITIES and Other Authorities: Examples of sustainable mobility CRITERIA in the procurement process.

UNIVERSITY / AUTHORITY / ORGANISATION	CASE STUDY: Green procurement criteria related to sustainable mobility
University Jaume I Castellón (Spain)	Tender documents for *Electrical maintenance services* including sustainable mobility criteria
Autonomous University of Barcelona UAB (Spain)	Definition of criteria for the procurement of university equipment and services
Barcelona City Council (Spain)	2018 Sustainable Public Procurement Plan
City of Lappeenranta (Finland)	An electric vehicle car-sharing service for city workers and citizens
City of Ljubljana (Slovenia)	Hybrid cars for city authorities
Stuttgart municipal sewage treatment plant (Germany)	Electric vehicles for the Municipal Sewage Treatment plant
Province of North-Brabant (the Netherlands)	Transitioning towards zero-emission public transport
Croatian Post (Croatia)	Croatian Post purchases e-bikes for mail deliveries
City of Oslo (Norway)	Zero-emission transport of maintenance and repair services and facility waste *(BUYZET*)*
City of Copenhagen (Denmark)	Zero-emission transport for craft and facility management services *(BUYZET*)*
City of Rotterdam (The Netherlands)	Zero-emission delivery of craftsmen service contracts through the Ecostars scheme *(BUYZET*)*
CONSIP (Italian National Central Procurement Body)	Use of environmental criteria in tenders for motor vehicle rental services – for Italian public authorities *(GPPbest*)*

The latter examples are related to best practices presented in EU-funded projects, such as BUYZET Project and GPP Best project.

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Case Study 8 – University of Jaume I Castellón: Tender document for electrical maintenance services including sustainable mobility criteria

WHO?

COUNTRY	LOCATION	SIZE
Spain	Urban University - Castellón	17,351 people

WHAT?

- Incorporation into the technical specifications for the electrical maintenance service of its campus of the following environmental criteria related to the use of sustainable vehicle for their services.

REQUIREMENT for the operator to be awarded the contract:
'Provide, for use by contract personnel, 2 small 100% electric vans with a minimum load capacity of 400 kg'.

WHEN?

- 2015

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Case Study 9 – Autonomous University of Barcelona UAB: Definition of criteria for the procurement of university equipment and services

WHO?

COUNTRY	LOCATION	SIZE
Spain	Periurban university - Barcelona	More than 40 000 people

WHAT?

- Criteria required in the procurement specifications for the **replacement of internal combustion vehicles** in the **UAB fleet** with electric vehicles: 100% electric and rechargeable with a range of 150 km.

  For example, three vehicles to be used for internal mail, environment office and stable service were replaced following these criteria. The corresponding charging points were installed.

WHEN?

2015

WHAT?

- Criteria required in the **procurement specifications for services at the UAB campus**:
  - In the specifications for the campus cleaning service, the UAB requested that the vehicles to be used by the company be propelled by alternative energies to fossil fuels.

WHEN?

2017

  - In the procurement for campus vending machines, the UAB established the criterion of assessing the provision of electric vehicles for their operations on campus.

WHEN?

2018

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WHAT?

- In the procurement specifications for the **Internal bus transportation service** on the UAB campus, the UAB required:
  - ISO 14001 implementation (environmental management system of the company).
  - Vehicles with a maximum consumption and emission level (Euro VI).

  Also scoring was provision by the company of:
  - Driver communications software to make driving safer and more efficient.
  - Certification of efficient driving courses for the driving staff.

WHEN?

2016

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Case Study 10 – City of Lappeenranta: An electric vehicle car-sharing service for city workers and citizens

WHO?

COUNTRY	LOCATION	SIZE
Finland	City of Lappeenranta	73,000 inhabitants

WHAT?

- Lappeenranta decided to use environmental and climate criteria as well as lifecycle costs when purchasing vehicles.
- The city launched a pilot procurement with the aim of introducing a fully-electric, versatile car-sharing service available to city employees, residents, businesses and tourists.

Subject matter of the contract:

- Purchase of vehicle services.

CRITERIA USED in the procurement process:
Technical specifications:

- Four passenger vehicles must be available on weekdays from 07:00 to 16:30. Two must be reserved 100% for the City, and two are available for reservation by both the city and third parties.
  Outside these times, all vehicles should be available for rental by third parties.
- Vehicles must be rechargeable electric vehicles, with a full-charge range of 200 km.

Award criteria:

- The contract was awarded to the most financially advantageous offer.
- The price was assessed using two factors: the monthly service cost for the city (50 points) and the rental rates for third parties (10 points).
- Bidders were asked to provide a service delivery plan, detailing vehicles and service provided, including the extent to which vehicles exceed minimum requirements, the mobile app for the management of reservations, training for staff, maintenance and cleaning, vehicle replacement and a monthly monitoring and reporting plan.

WHEN?

- In 2017: pilot procurement launched.
- In 2018: service launched.

More information
https://ec.europa.eu/environment/gpp/pdf/news_alert/Issue_90_Case_Study_172_Lappeenranta.pdf

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Case Study 11 – City of Ljubljana: Hybrid cars for city authorities

WHO?

COUNTRY	LOCATION	SIZE
Slovenia	City of Ljubljana	288,307 people

WHAT?

- To change the entire city fleet in order to rationalise its management by selling all cars belonging to the current fleet and taking 60 cars on operational leasehold for five years instead. A target was set for at least 10% of these vehicles to be hybrid.

Subject matter of the contract:

- Operational leasehold of cars, with the service provider to purchase the existing fleet.

WHEN?

- The decision was made in 2009.

CRITERIA USED in the procurement process:

Technical specifications:

- Leasing of 9 different types of car, of which 6 will be mid-range hybrid vehicles. The hybrid vehicles should have the following features and environmental characteristics:
  - 1600 ccm3 engine.
  - Maximum fuel consumption of 5.5 l/100 km (urban).
  - Maximum CO_2 emissions of 110 g/km.
- Expected quantity: 6 vehicles, of which:
  - 5 vehicles to be driven up to 15 000 km/year.
  - 1 vehicle to be driven up to 30 000 km/year.
- Used vehicles are acceptable with less than 10 000 km of previous mileage.

Award criteria:

- Most financially-advantageous tender in terms of monthly leasing cost (85%) and price offered for the purchase of the vehicles (15%).

More information
https://ec.europa.eu/environment/gpp/pdf/news_alert/Issue5_Case_Study10_Ljubjana_hybrids.pdf

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Case Study 12 – Stuttgart municipal sewage treatment plant: Electric vehicles for this service

WHO?

COUNTRY	LOCATION	SIZE
Germany	City of Stuttgart	628,000 people

WHAT?

Subject matter of the contract:

- A 3-year contract for the successive replacement of diesel vehicles with electric trucks (100% of the fleet). The electric battery vehicles are designed for internal use at the City's main sewage treatment plant.
- A tender document with specific requirements was drawn up after extensive market analysis.

CRITERIA USED in the procurement process:

Technical specifications:

- Battery: one of the following car batteries for electric vehicles must be provided: Lithium-Ion battery, lead-acid battery, flooded battery
- Battery warranty: 2 years included.
- Speed restriction to 25km/h.
- Brakes: hydraulic, energy recovery.

Award criteria:

- 60:40 (Quality: Price) ratio. Scores for quality included criteria for the warranty, distance to the closest customer service office, operating range of the car battery, driving comfort for employees, and handling during loading and unloading. To test and evaluate these features, the manufacturers had to provide test vehicles.

More information

https://ec.europa.eu/environment/gpp/pdf/news_alert/Issue22_Case_study49_Stuttgart.pdf

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Case Study 13 – Provincial Government of North-Brabant: Transitioning towards zero-emission public transport

WHO?

COUNTRY	LOCATION	SIZE
The Netherlands	Province of North-Brabant (divided into 66 municipalities)	2.51 million

WHAT?

Subject matter of the contract:

- Servicing public transport using a 100% zero-emission fleet by 2024.

Procurement objectives for tender to bus concessions:

1. Improvements to the network of public buses.
2. Increasing customer satisfaction; 3 - transition to a zero-emission network (this one highlighted as desired, only where it was possible within financial, operational and technical means).

WHEN?

- 2015-2018: Pilot actions with various sustainable energy technologies.
- Target for 2025: 100% clean bus transport at a socially acceptable price.

CRITERIA USED in the procurement process:

Performance-based specifications:

- Zero-emission buses were defined according the EU-Regulation 630/2012 as a 'pure electric vehicle' or a 'Hydrogen fuel cell vehicle'. A 'hybrid electric vehicle' as defined in EU-Regulation 630/2012 does not qualify as zero emission.

Award criteria *(some include environmental issues)**:***

- Zero-emission (ZE) transition (11.5%):
  - Transition path (qualitative criteria): What is the plan for reaching zero emissions, for example, considering factors such as how the PTO will acquire new technical knowledge, e.g. through employment of new staff.
  - Pilots and innovations / Pilot buses: Obligation to use the new bus technologies piloted, e.g. fuel cell operated electric buses.
  - Number of zero-emission vehicles in use at the start of the contract and the pace of introduction of further ZE vehicles (quantitative criteria).
  - Basic vehicle requirements (e.g. EEV – enhanced environment-friendly vehicle) at the start and during the concession.

More information
https://ec.europa.eu/environment/gpp/pdf/news_alert/Issue71_Case_Study_141_Northern-Brabant.pdf

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Case Study 14 – Croatian National Postal service: Transitioning towards zero-emission public transport

WHO?

COUNTRY	LOCATION	SIZE
Croatia	Croatia	

WHAT?

- Public tender to purchase 180 electric bicycles to replace an equal number of conventionally-fuelled (internal combustion engine) scooters, which amounted to 2,200 bicycles.
- Croatian Post based its decision to replace its scooters with e-bikes on a number of factors, including the fact that electric bikes have a similar range to their scooters when charged, but can also be used when their battery runs out.

WHEN?

- 2014: 1-year testing period for bike replacement (within the EU-funded PRO-E-BIKE project).
- 2015: Croatian Post launched the public tender.

Subject matter of the contract:

- Procurement of bicycles with auxiliary electric motors, equipped with the proper accessories, rear suspension bag, front bag, and an instrument for measuring energy consumption.

CRITERIA USED in the procurement process:

Technical specifications:

- The tender requires a two-year guarantee and the batteries must have capacity for 800 charges (to reduce maintenance costs).

Award criteria:

- Lowest price.

More information

https://ec.europa.eu/environment/gpp/pdf/news_alert/Issue62_Case_Study_125_Croatia_Post_e-bikes.pdf

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Case Study 15 – Barcelona City Council: 2018 Sustainable Public Procurement Plan

WHO?

COUNTRY	LOCATION	SIZE
Spain	City of Barcelona	1.7 million people

Ajuntament de Barcelona

https://ajuntament.barcelona.cat/contractaciopublica/ca/

WHAT?

- This Plan proposes action criteria for each promotional unit to apply in accordance with the conditions and characteristics of every procurement procedure for each administrative area of the city council.
- ENVIROMENTAL MEASURES: The criteria defined in the environmental instructions compiled in the Environmental Public Procurement are to be applied.
- These include criteria for Vehicles regarding the doubling of the percentage of low-emissions vehicles (electric, hybrid or gas-powered cars and vans) acquired for the municipal fleet.

WHEN?

- 2018

More information

https://ec.europa.eu/environment/gpp/pdf/news_alert/Issue61_Case_Study_124_Sustainable_City_Barcelona.pdf

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Case study 16 – City of Oslo: Zero-emission transport of maintenance and repair services and facility waste

WHO?

COUNTRY	LOCATION	SIZE
Norway	City of Oslo	673,500 inhabitants

WHAT?

- A plan on how the City of Oslo will achieve zero-emission (ZE) transport in all future procurements made by the municipality has been prepared; it includes a method for appropriate preparations and requirements:
  - Part 1: Guidance on market dialogue, environmental criteria and contract management.
  - Part 2: Additional activities needed to succeed, such as involvement of stakeholders (internal – interactions with other agencies in the municipality, with regard to infrastructural/technical questions; external, with other public buyers) and dissemination strategy.

The Procurement Unit has already achieved great results in using environmental criteria for transport, and believes that this method is a necessary contribution to reach the target.

The Procurement Unit of the municipality has developed environmental criteria to be used in the procurements of all goods and services which involve an element of transportation in their delivery.

CRITERIA RECOMMENDED:

Minimum requirements:

- All vehicles used to deliver in the contract must at least meet the European emissions standard 6/VI.

Award criteria: Environmental performance:

- The Municipality will prioritise fuel technologies in the following order in the evaluation:
  1. Hydrogen vehicles or 100% battery-driven electric vehicles.
  2. Biogas vehicles: compressed biogas (CBG) or liquefied biogas (LBG).
  3. Vehicles that use other sustainable fuels.

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Award criteria: Environmental performance:

- Factors that will also be rated highly in the evaluation:
  - Vehicles with high payloads (2,000 kg or more) will score the highest. Gradual reduction in points for vehicles with lower payloads.
  - Vehicles that will be ready from the contract start date will score the highest. Gradual reduction in points for vehicles that will be introduced during the first year of the contract.
  - The following applies to b) and c) only: vehicles that use plug-in hybrid technology with a minimum range of 50 km on electricity will score slightly higher than vehicles that do not.
  - Vehicles that meet the minimum requirements for Euroclass 6/VI and also use fossil fuels will score no points (0 points).

Documentation requirements:

- When a contract is signed, copies of the vehicle registration documents for the vehicles that will be used from the contract start date must be presented.

More information

https://ec.europa.eu/environment/gpp/pdf/news_alert/Issue30_Case_Study65_Oslo_zero_emission_vehicles.pdf

http://www.buyzet.eu/core-cities/oslo/

LIFE project number LIFE15 GIC/ES/000056. This Project is funded by the European Union. It reflects the author's view only, and the agency is not responsible for any use that may be made of the information it contains.

Case study 17 – City of Copenhagen: Zero-emission transport for craft and facility management services

WHO?

COUNTRY	LOCATION	SIZE
Denmark	City of Copenhagen	1.3 million people

WHAT?

- A plan for implementing criteria for the use of emission-free or low-emission vehicles in the city's contracts for craft and facility management services.
- The principles set up to decide/evaluate the level of green transportation in each contract are:
  - Type of vehicles used in relation to the contract.
  - Contract size/expenditure: The larger the contract the higher the criteria.
  - Duration/start date of contract.

Instead of looking at numbers of green vehicles in the suppliers' fleet, relating the criteria to the number of deliveries has been suggested. For example, 20% of all deliveries or all transportation in relation to the contract-matter must involve green vehicles.

CRITERIA EXAMPLES – Minimum requirements for vehicles:

Type of Vehicle	Spend	2019	2020	2021	2022-2025
Passenger cars and small vans	<2 million DKK[6]	Minimum energy efficiency class A	1 green vehicle	1 green vehicle	1 green vehicle
	2-5 million DKK	1-2 green vehicles	2 green vehicles	2-3 green vehicles	3 green vehicles
	>5 million DKK	2 green vehicles	2-3 green vehicles	3-4 green vehicles	5 green vehicles

Note:

Green vehicles are defined as cars that can run on electricity, biogas or hydrogen.

Plug-in hybrid cars are also covered by the definition, whereas hybrid cars are considered to be energy-efficient petrol or diesel cars.

CRITERIA EXAMPLES – Application in services' tender documentation:

Procurement area	Contract start	Spend annually (million DKK)	Minimum criteria
Window cleaning	2019	6	2 green vehicles
Lock service	2020	Not known	Depending on size of contract either 1, 2 or 2-3 green vehicles.
Electricians	2020	116	2-3 green vehicles

More information

http://www.buyzet.eu/core-cities/copenhagen/

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Case study 18 – City of Rotterdam: Zero-emission delivery of craftsmen service contracts through the Ecostars scheme

WHO?

COUNTRY	LOCATION	SIZE
The Netherlands	City of Rotterdam	645 000 inhabitants

WHAT?

- A procurement strategy was developed for maintenance service contracts for municipal facilities.
- The strategy chosen for craftsman services involved two elements:
  - Minimum requirement that all vehicles meet the requirements of Rotterdam's low-emission zone.
  - Using the ECOstars fleet rating scheme to encourage an improvement in environmental performance over the duration of the contract and services which involve an element of transportation in their delivery.

CRITERIA APPLIED:

Minimum requirements:

- A contract clause was included to indicate that all vehicles used during the contract period should meet the specifications of the Rotterdam Low-Emission Zone (LEZ). Access by some polluting vehicles is restricted in order to improve local air quality.

ECOstars fleet:

- All bidders were required to provide an initial ECOstars rating of the suppliers' fleet at the start of the contract period, followed by an update after three years, i.e. at the end of the first year of the contract extension.

More information
http://www.buyzet.eu/core-cities/rotterdam/

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Case study 19 – Use of environmental criteria in tenders for motor vehicle rental services

WHAT?

- Initiative for the inclusion of green criteria in **technical specifications for the long-term driverless motor vehicle rental service for the public authorities**, pursuant to Italian regulations, launched by CONSIP (*)

  The service includes operating vehicles, intermediate vehicles, commercial vehicles, dual-fuel vehicles (propane/methane), electric vehicles, and the following basic services:

  - Delivery to a dedicated centre (i.e. area dealership).
  - Ordinary and extraordinary maintenance, tyres, bodywork repairs.
  - Roadside assistance.
  - Insurance coverage with deductible and claims management.
  - Call Centre service for the public authorities.

(*) CONSIP is an Italian Public Company wholly owned by the Italian Ministry of Economy and Finance, which operates exclusively for the public authorities, providing consultancy, assistance and support services for the procurement of goods and services (national central procurement body).

The green components of this agreement are to be identified in:

- the offer of dual-fuel vehicles, 100% hybrid and electric traction;
- compliance with the Minimum Environmental Criteria (CAM, as per its Italian acronym) of the Italian Environment Ministry;
- reduction in fuel consumption and emissions.

More information on GPPbest – "Good Practices"
https://www.gppbest.eu/?page_id=25&lang=en

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Projects involved in mobility-related Green Procurement

BUYzet Project

EU-funded project

BuyZET aims for the **procurement of innovative solutions for zero-emission urban delivery of goods and services.**

Launched in November 2016, the BuyZET project is a partnership of cities aiming to achieve the zero-emission urban delivery of goods and services by:

- **Understanding** the **transportation footprint** of their different procurement activities.
- Developing **innovative procurement plans** for two key procurement areas that minimise the number, distance and disruptiveness of motorised vehicle trips within the city and maximise the proportion of these trips made by zero-emission vehicles (ZEVs).

The three core project cities are **Rotterdam, Copenhagen and Oslo**.

Other cities are also participating as Observer Cities.

More information

http://www.buyzet.eu/

GPPbest Project

EU LIFE-funded project

GPPbest Best practices exchange and strategic tools for GPP is a project funded by the European Commission within the LIFE project, in the priority area of Environmental Governance and Information of the sub-programme for the Environment.

GPPbest aims at improving:

- Governance of procurement policies so that they can be better orientated at the meeting of sustainable development objectives.
- Competences for planning and implementing policies and plans for green public procuremen.
- Information on GPP environmental and economic benefits.

A catalogue of best practices for GPP policy planning and implementation and guidelines for GPP implementation was created to support all public institutions within the project.

More information

https://www.gppbest.eu/

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PROCURA Project

EU-funded project

PROCURA aims at contributing to the EU objectives of replacing oil-based motor fuels by overcoming market barriers for the large-scale **procurement of Alternative Fuel Vehicles (AFVs).**

The PROCURA project has been developing and testing models for centralised AFV procurement via:

- Buyer pools (permitting centralised infrastructure and servicing).
- A focus on private fleet owners (e.g. Greenlease).
- The start-up development of second-hand markets and certification systems for AFVs.

In addition, the PROCURA project also includes the development of manuals and guidelines for the introduction of these new technologies and fuels, as well as pilot case studies in the Netherlands, Italy, Portugal, Poland and Spain.

More information

https://ec.europa.eu/energy/intelligent/projects/en/projects/procura

COMPRO Project

EU-funded project

COMmon PROcurement of collective and public service transport clean vehicles (COMPRO) contributes to the development of a common European market of clean public transport vehicles by creating a buyer consortium of local authorities for the joint procurement of clean, collective, public service transport vehicles.

The COMPRO approach is comprised of 2 main blocks:

- "HOW can public authorities buy together", which deals with two main topics: legal viability and approval compatibility.
- Development of the specifications of "WHAT to buy together", which goes through a two-step procedure: the specifications of the 'common vehicles' and the specific options arising from the local characteristics of cities, visibility and personalisation.

More information

https://ec.europa.eu/energy/intelligent/projects/en/projects/compro

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green in motion

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