



JRC SCIENCE FOR POLICY REPORT

Revision of the EU Green Public Procurement Criteria for Transport

*Preliminary report
Task 1 Report (draft):
Scope, definitions and
legislation*

Rocío Rodríguez Quintero, Hans Moons,
Miguel Gama Caldas and Oliver Wolf (JRC
IPTS)
Ian Skinner (TEPR)
Anouk van Grinsven, Huib van Essen (CE
Delft)

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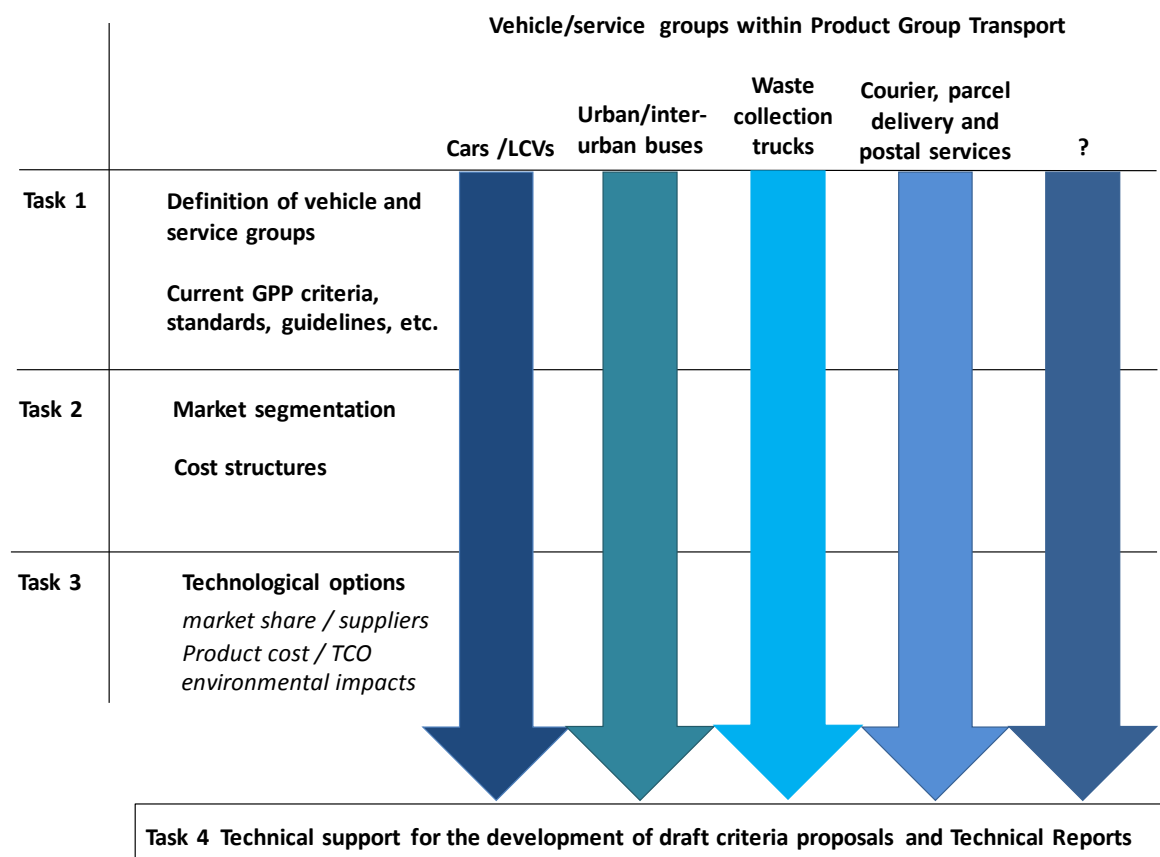
1 SCOPE, DEFINITIONS AND LEGISLATION

1.1 Introduction

Green Public Procurement (GPP), in which public authorities procure goods, services and works that have less environmental impact than comparable contracts, has the potential to accelerate the market introduction and market uptake of less environmentally damaging technologies. In order to support GPP, the European Commission has developed a set of common EU GPP criteria for various products and services in order to avoid a distortion of the single market and to reduce administrative burdens. The most recent EU GPP criteria for transport were published in 2012 (European Commission, 2012) and were based on the Technical Background Report published in 2011 (BRE, 2011). The aim of this study is to revise the current EU GPP criteria for Transport (2012 EU GPP criteria). CE Delft, jointly with Transport and Environmental Policy Research (TEPR), is supporting the JRC-IPTS in this process¹.

The project has four separate tasks, as shown in Figure 1.

Figure 1: Overview of the project



¹ See the project's website: <http://susproc.jrc.ec.europa.eu/Transport/index.html>

This report focuses on Task 1, which is the first part of the revision process. The aim of this task is as follows:

"To provide an overview of existing statistical and technical categories, of existing relevant legislation, standards and other procurement criteria, and to propose on that basis a scope for the product group for the revised EU GPP criteria. To gather feedback from stakeholders regarding this product group's scope"

The aim of the revision process is to deliver revised criteria that reflect the latest technological development, while taking into account stakeholder opinions, current legal developments and other GPP initiatives. The criteria need to be ambitious enough to result in the 'greening' of the transport sector, while on the other hand, barriers associated with the level of ambition should not hinder the use of the revised EU GPP criteria.

The scope of the revision includes the product group 'Transport' and is limited to the European transport sector. The main focus of the revision of EU GPP criteria is those that are applied in the EU, although similar GPP initiatives and standards from non-EU countries will be taken into account. Due to the regular update of EU GPP criteria, this project focuses on the market developments in the period 2012-2015 (since the last publication of the EU GPP criteria). For future market developments the scope was limited to the time period 2015-2020, assuming a new revision process to take place before 2020 to determine the criteria required after 2020.

As part of Task 1, the following work has been undertaken:

- **Overview of existing legislation, standards and criteria.** This includes a review of EU legislation, relevant guidelines and ecolabels at the EU and national levels and relevant standards, guidelines and initiatives used in the private sector. This is presented in Section 1.2.
- **Overview of statistical and technical categories.** The focus of this review was on the categories that can be used to define the vehicles and services that might be covered by EU GPP criteria for transport. This is covered in Section 1.3.
- **Stakeholder survey.** The focus of the survey is to gather the views of relevant stakeholders on the existing EU GPP criteria, particularly the need to update these. The survey asked for views on the categories of transport vehicle and service covered by the criteria, the definitions of these vehicles and services, the scope and definition of the criteria themselves and the uptake of the criteria. Section 1.4 analyses the responses to the survey only in relation to the categories of vehicle and service covered and the definition of these. The analysis of the remaining responses will be undertaken in the Task 3 report.
- **Proposals for the revision of the categories covered by the criteria and their definition.** This is presented in Section 1.5 and has the same scope as the analysis of Section 1.4. Proposals relating to the criteria will be left to the Task 3 report.

1.2 Overview of existing legislation, standards and criteria

The aim of this section is to provide an overview of existing legislation, standards and other procurement criteria that are of relevance to road transport vehicles and services. First, an overview of relevant EU legislation is provided, which focuses on those Communications, Regulations and Directives that are important for regulating the performance of road transport vehicles. Second, an overview is provided of relevant labelling and green/sustainable procurement criteria at the national level, including national or transnational ecolabels such as the Blue Angel and Nordic Swan. A brief overview of relevant initiatives in the private sector is then provided, before the section concludes with a synthesis of the analysis.

1.2.1 Overview of EU legislation that regulates the environmental performance of transport

The importance of taking action in the transport sector to reduce its environmental impacts, particularly in relation to its emission of greenhouse gases (GHGs), air pollutants and noise, has been highlighted in various EU strategic documents, including the seventh Environment Action Programme². The broader transport policy framework is set by the 2011 Transport White Paper, which underlines the need for, and a number of initiatives that will contribute to, improving the environmental performance of road transport vehicles and the way that they are used (European Commission, 2011a). Environmental considerations were core to the Transport White Paper, as it took as its starting point the need to reduce transport's GHG reductions by 60% by 2050 (compared to 1990 levels), which was the mid-point in the range of cost effective GHG reductions from transport identified by the Commission's Low Carbon Roadmap (European Commission, 2011b). The importance of decarbonising transport was also underlined in the 2030 climate and energy policy framework (European Commission, 2014a).

The ambient air quality Directive provides the policy framework for air quality as it sets limit values for a range of air pollutants, including nitrogen dioxide and particulate matter (PM), in order to protect human health and the environment³. In spite of improvements in air quality in recent years, largely as a result of European emissions legislation, there remain challenges particularly near roads as a result of the emissions of the oxides of nitrogen (NO_x) from road vehicles. Noise from road traffic is similarly a persistent problem (EEA, 2015a). Vehicles are also a major waste stream and so need to be designed and treated appropriately at the end of their life in order to be consistent with the emerging circular economy framework (European Commission, 2015a). The remainder of this section sets out the detail of the EU policy framework for improving the environmental performance of road transport vehicles by:

- Reducing GHG emissions from vehicles by improving their efficiency and the way in which they are used;
- Reducing the air pollutant emissions from vehicles and measures to reduce the impact of these emissions on human health;
- Reducing the noise from vehicles; and
- Reducing other environmental impacts, such as those relating to the end of life treatment of vehicles.

1.2.1.1 Reducing GHG emissions from vehicles

The main legislation to improve the GHG emissions performance of road transport focuses on reducing **carbon dioxide (CO₂) emissions** from new cars and light commercial vehicles (LCVs). The passenger car CO₂ Regulation sets a fleet-wide average

² Decision No 1386/2013/EU on a General Union Environment Action Programme to 2020

³ Directive 2008/50/EC on ambient air quality and cleaner air for Europe

target of 95 gCO₂/km for 2021 for the new car fleet⁴, while the LCV CO₂ Regulation⁵ sets a similar target for the new LCV fleet of 147 gCO₂/km for 2020. The Regulations apply to M₁ and N₁ vehicles respectively and both had earlier targets (for cars in 2015 and for LCVs in 2017), which have already been met. In 2014, the average CO₂ emissions of new cars in the EU was 123g/km, which was a 10% drop since 2011, while the equivalent figure for new LCVs was 169 g/km (EEA, 2015b). There is no equivalent legislation for heavy duty vehicles (HDVs), such as buses and waste collection trucks, although a tool to support the measurement of the CO₂ emissions of these vehicles has been developed at the EU level (European Commission, 2014b). In the course of 2016-17, the Commission plans to review the car and LCV CO₂ Regulations with the aim of establishing post-2020 targets for these vehicles, and to establish a monitoring and reporting system for HDVs in order to improve the information provided to potential purchasers (European Commission, 2015b).

In order to reduce CO₂ emissions from their vehicles, manufacturers can include a range of different technologies that have the potential to improve the fuel efficiency of the vehicle. This includes varying degrees of hybridisation in which an increasing amount of energy comes from an electric motor. The use of **'stop and start'** technology, which was included in the 2012 EU GPP criteria for Transport, is part of the increasing hybridisation of vehicles. Its use on new vehicles has been increasing as it turns a vehicle's engine off when the vehicle is standing still, thus reducing emissions particularly in congested conditions or when vehicles are otherwise stationary, e.g. at bus stops. However, 'stop and start' technology is only one of many different types of technology that can reduce CO₂ emissions. This will be covered in more detail in the technical analysis in Task 3.

In order to reduce transport's GHG emissions, it is also important to decarbonise the fuels and energy sources that are used through the increased **use of alternative fuels**, such as biofuels (including biogas), electricity and hydrogen. Vehicles using natural gas also deliver savings in GHG emissions compared to petrol-engined vehicles. Two closely-related Directives set requirements on Member States to increase the amount of renewable fuels used in the transport sector and to reduce the GHG intensity of existing fuels. The aim of the Renewable Energy Directive is to increase the amount of energy produced from renewable sources, including in the transport sector. For transport, it sets a minimum target for 2020 of 10% for the proportion of final energy consumption that must be from renewable sources⁶. The Fuel Quality Directive sets the quality parameters for the petrol and diesel used by road transport, as well as by non-road mobile machinery. A 2009 amendment to the Directive introduced targets for energy suppliers to reduce the lifecycle GHG emissions of the fuels that they supplied. This included a mandatory 6% target to be achieved by 2020, which was supplemented by two indicative targets that could take the final target to 10%⁷. More recently, the Alternative Fuels Infrastructure Directive aims to contribute to the development of the necessary infrastructure for alternative transport fuels, including for natural gas, by requiring Member States to develop appropriate national policy frameworks⁸.

Apart from CO₂ emissions from the combustion of fossil fuels, the other important source of GHG emissions from the transport sector relates to the gases used in **air conditioning systems**. Since 2011, the mobile air conditioning Directive⁹ has required that the gases used in air conditioning systems that are designed to contain fluorinated

⁴ Regulation (EC) No 443/2009 setting emission performance standards for new passenger cars as part of the Community's integrated approach to reduce CO₂ emissions from light duty vehicles

⁵ Regulation (EU) No 510/2011 setting emission performance standards for new light commercial vehicles as part of the Union's integrated approach to reduce CO₂ emissions from light duty vehicles

⁶ Directive 2009/28/EC on the promotion of the use of energy from renewable sources

⁷ Directive 98/79/EC relating to the quality of petrol and diesel fuels, as amended by Directive 2009/30/EC

⁸ Directive 2014/94/EU on the deployment of alternative fuels infrastructure

⁹ Directive 2006/40/EC relating to emissions from air conditioning systems in motor vehicles

greenhouse gases are fitted to new models of cars and small LCVs (i.e. class I LCVs) have a Global Warming Potential (GWP) of 150 or less. From 2017, the use of gases with a GWP higher than 150 is effectively banned in all new cars and small LCVs. While the Directive stated that it would be reviewed, and potential additional legislative proposals made, none has been forthcoming or has been mentioned in future plans, e.g. in the Transport White Paper.

In addition to setting technical standards for vehicles, such as for cars and LCVs, a vehicle's fuel use, and therefore its CO₂ emissions, is also influenced by how the vehicle is driven. Driving at appropriate speeds and with appropriate acceleration, braking and gear changes all influence fuel use. Fuel efficient driving behaviour is often referred to as '**eco-driving**'. This can be facilitated by the provision of information to drivers, e.g. provided with the vehicle, or through a mechanism in the vehicle that monitors driving behaviour and provides feedback. The feedback might be given directly to the driver and/or in reports discussed as part of driver training particularly in the case of vehicle fleets. For these reasons, criteria on the provision of information on eco-driving and fuel consumption displays were included in the 2012 EU GPP criteria for Transport, for the category 'purchasing or leasing of cars and LCVs', as were criteria on driving training and the provision of fuel consumption data for bus and waste collection services.

Two elements of eco-driving for cars – ensuring appropriate tyre pressures and appropriate gear changes – that were included in the 2012 EU GPP criteria – have been facilitated through technical requirements. Since 2014, the General Safety Regulation has required that all new cars registered or sold in the EU are fitted with an accurate **tyre pressure monitoring system (TPMS)** and a **gear shift indicator (GSI)**¹⁰. In its Transport White Paper, the Commission included a potential future initiative on 'eco-driving and speed limits'¹¹. This mentioned that the inclusion of eco-driving requirements might be considered in future revisions of the driving licence Directive, that the deployment of ITS applications in support of eco-driving should be accelerated and that approaches to limit the maximum speed of LCVs would be examined.

The General Safety Regulation¹² also set out safety and environmental requirements for tyres. It requires that **all tyres**, including those provided with new vehicles, must meet specified **rolling resistance and rolling noise requirements**. The requirements apply first to new types of tyre, then tyres fitted to new vehicles, before ultimately preventing tyres that do not meet the specified limits from being sold. New types of tyre have had to meet the rolling noise limits and the first set of rolling resistance limits specified in the Regulation since 2012. From November 2016 new types of tyre have to comply with a second set of limit values for rolling resistance:

- 10.5 kg/tonne for tyres designed primarily for cars, LCVs and their trailers;
- 9 kg/tonne for tyres designed primarily for larger vehicles and their trailers that carry lighter loads; and
- 6.5 kg/tonne for tyres designed primarily for larger vehicles and their trailers that carry heavier loads.

All of these coefficients are measured in accordance with ISO 28580. For snow tyres, the specified limit values are increased by 1 kg/tonne.

1.2.1.2 Reducing the air pollutant emissions from vehicles

Separate legislation limits the **emissions of air pollutants** from light duty vehicles (LDVs, i.e. cars and LCVs) and from HDVs. Additionally, other legislation sets emission limit values on a range of non-road mobile machinery (NRMM) that is not primarily (or at

¹⁰ Regulation (EC) No 661/2009 concerning type approval requirements for the general safety of motor vehicles, their trailers and systems, components and separate technical units intended therefor

¹¹ Initiative 30 of European Commission (2011a)

¹² Regulation 661/2009

all) used on roads. The LDV emissions Regulation sets the latest emission limit values for cars and LCVs, known as Euro 6, for various pollutants including NO_x, PM and non-methane hydrocarbons (NMHC). These have been required for all new cars and smaller LCVs since September 2015 and will be required for all new large LCVs from September 2016¹³. One of the reasons for the persistent problem with NO_x emissions from road vehicles mentioned above has been an emerging discrepancy between NO_x emissions measured on the test cycle and those that are emitted in real world conditions. As a result real driving emission (RDE) tests are being developed and introduced for LDVs, which will require real world emissions to be within a fixed range of the test cycle emissions. RDE emissions of 110% above the test cycle emissions will be permitted until 2019, after which the maximum variance allowed will be 50% (European Commission, 2015c).

The HDV emissions Regulation sets the latest emission standards for such vehicles, or specifically their engines. The current Euro VI standards, which cover similar emissions to the LDV emissions Regulation, have applied to all new vehicles and engines since the start of 2014¹⁴. These replaced, and are more stringent than, the limit values referred to as Euro V and 'EEV' (enhanced environmentally friendly vehicle) that were set by previous legislation. In addition, the NRMM emissions Directive sets emission limit values for a similar range of pollutants for engines installed in a wide range of machinery, from hedge trimmers through construction machinery to rail locomotives and inland waterway vessels. All new machinery covered by the NRMM Directive now have to meet the most recent set of emission limit values that are specified, as the latest emission values have been a requirement since 2014¹⁵. The Commission proposed to repeal the current NRMM Directive and replace it with a Regulation that would *inter alia* introduce new emission limits in September 2014 (European Commission, 2014c), but this has not yet been adopted.

In order to protect human health, reducing people's exposure to air pollutants is important. For this reason, the 2012 EU GPP criteria include a criterion with respect to the location of the exhaust on buses. Specifically, that for buses purchased, or any buses used in contracts that have been procured, the **exhaust pipe** should not be located on the same side as the passenger door.

Air pollutant emissions come not just from the operation of vehicles, but also from their maintenance. The paints Directive sets the maximum content of volatile organic compounds (VOCs) for various products used to refinish vehicles; all relevant products have had to comply with the stated maximum values since 2007¹⁶.

1.2.1.3 Reducing the noise from vehicles

European legislation also directly regulates the **noise levels** of vehicles and other outdoor machinery. The vehicle noise Regulation¹⁷ sets three phases of declining noise limit values for cars, LCVs, buses and other heavy duty vehicles, starting in 2016 with phase 1. Phase 2 applies to new vehicle types from 2020 and to all registrations from 2022, while phase 3 applies four years later. For each category of vehicle, the emissions limits are summarised in Table 1.

¹³ Regulation 715/2007 on type approval of motor vehicles with respect to emissions from light passenger and commercial vehicles (Euro 5 and Euro 6) and on access to vehicle repair and maintenance information

¹⁴ Regulation 595/2009 on type approval of motor vehicles and engines with respect to emissions from heavy duty vehicles (Euro VI) and on access to vehicle repair and maintenance information, as amended by Commission Regulation (EU) No 582/2011

¹⁵ Directive 97/68 on the approximation of the laws of the Member States relating to measures against emission of gaseous and particulate pollutants from internal combustion engines to be installed in non-road mobile machinery, as amended by Directive 2004/26/EC

¹⁶ Directive 2004/42/EC on the limitation of emissions of volatile organic compounds due to the use of organic solvents in certain paints and varnishes and vehicle refinishing products

¹⁷ Regulation (EU) No 540/2014 on the sound level of motor vehicles and of replacement silencing systems

Table 1: Future noise limit values as set out in the vehicle noise Regulation

	Measured in decibels (A) or dB(A)		
	Phase 1 (2016)	Phase 2 (2020 for new vehicle types, 2022 for all registrations)	Phase 3 (2024 for new vehicle types, 2026 for all registrations)
Cars	72 to 75 depending on the vehicle's power to mass ratio	70 to 74 depending on the vehicle's power to mass ratio	68 to 72 depending on the vehicle's power to mass ratio
Small buses (M₂)	72 to 75 depending on the vehicle's mass and rated engine power	70 to 74 depending on the vehicle's mass and rated engine power	69 to 72 depending on the vehicle's mass and rated engine power
Buses (M₃)	76 to 80 depending on the vehicle's mass and rated engine power	74 to 78 depending on the vehicle's mass and rated engine power	73 to 77 depending on the vehicle's mass and rated engine power
LCVs	72 to 74 depending on the vehicle's mass	71 to 73 depending on the vehicle's mass	69 to 71 depending on the vehicle's mass
Heavy commercial vehicles	77 to 82 depending on the vehicle's rated engine power	75 to 81 depending on the vehicle's rated engine power	74 to 79 depending on the vehicle's rated engine power

The outdoor equipment noise Directive 2000/14¹⁸ sets limit values for noise from selected outdoor machinery, the last stage of which has applied since 2006. For other outdoor machinery, including waste collection vehicles, the Directive does not set emission limit values, only requiring that this machinery are subject to noise marking.

1.2.1.4 *Reducing other environmental impacts*

From an environmental perspective, the materials used in vehicle manufacture, as well as any lubricants used in the course of a vehicle's operation, are also important. Some materials and components of lubricants are potentially more damaging to human health and the environment than others, if they are disposed of inappropriately or, in the case of lubricants, are released accidentally in the course of vehicle operation or repair. Additionally, the use of low viscosity engine lubricants has the potential to improve the efficiency of engines and thus contribute to reducing CO₂ emissions.

Conditions on the **materials used** in cars and LCVs and on their disposal in order to minimise waste are set in the end of life vehicle Directive, which also aims to improve their end-of-life treatment¹⁹. The Directive sets minimum requirements that apply from 2015, i.e. that a minimum of 95% by weight of end-of-life cars and LCVs should be reused and recovered, and that a minimum of 85% should be reused and recycled. The Directive also prohibits the use of certain substances in cars and LCVs, including lead, mercury, cadmium and hexavalent chromium, other than for a regularly-updated list of

¹⁸ Directive 2000/14/EC on the approximation of the laws of the Member States relating to the noise emission in the environment by equipment for use outdoors

¹⁹ Directive 2000/53/EC on end of life vehicles

exemptions. Manufacturers are also encouraged to increase the use of recycled materials in the vehicles.

There is no specific EU legislation that regulates the environmental performance and use of **lubricants**. Instead there are a number of pieces of legislation that regulate potentially dangerous substances, including the CLP²⁰ and the REACH²¹ Regulations. The ecolabel Regulation²² sets the framework within which ecolabels are developed and refers to both of the CLP and REACH Regulations, as does the EU's ecolabel on lubricants (see below).

The principles of waste management in the EU are set out in the waste Directive and include that disposal should occur only when re-use, recycling and recovery are not possible and that when disposal does take place, it should not endanger human health or harm the environment²³. **Waste oils** (including lubricating oils) and **end-of-life tyres** from road transport vehicles are included on the EU's waste list²⁴. The waste Directive explicitly notes that waste oils should be collected separately (where technically feasible) and that their disposal should occur only when re-use, recycling and recovery are not possible and that their disposal should not endanger human health or harm the environment. Consequently, where services are procured, procurers can ensure that contractors dispose of waste oils and end of life tyres, and operate their **wash bays**, appropriately.

1.2.1.5 EU requirements on vehicle procurement and relevant labels

The most relevant piece of EU legislation relating to the green public procurement of transport vehicles is the **Clean Vehicle Directive** (CVD)²⁵. This requires national, regional and local authorities, as well as public transport operators over which these authorities have control, to take account of the environmental performance of road transport vehicles in the course of any procurement process for purchases above the EU public procurement thresholds. The environmental impacts to be taken into account must include at least the following:

- Energy consumption;
- CO₂ emissions; and
- Emissions of NO_x, NMHC and PM.

The Directive specifies different options for including these impacts in the course of the procurement process, i.e. by:

- Setting technical specifications for the performance of vehicles in relation to these impacts; or
- Including energy and environmental impacts in the purchasing decision by:
 - o Using the impacts as award criteria; or
 - o Monetising the impacts, according to a methodology outlined in the Directive.

Other EU legislation sets requirements for the labelling of certain vehicles and components. The **Car Labelling Directive**²⁶ requires that a label containing information on its fuel efficiency and CO₂ emissions is applied to each new car model at the point of

²⁰ Regulation (EC) No 1272/2008 on classification, labelling and packaging (CLP) of substances and mixtures

²¹ Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency

²² Regulation (EC) No 66/210 on the EU ecolabel

²³ Directive 2008/98/EC on waste

²⁴ Commission Decision 2000/532/EC establishing a list of wastes

²⁵ Directive 2009/33/EC on the promotion of clean and energy efficiency road transport vehicles

²⁶ Directive 1999/94/EC relating to the availability of consumer information on fuel economy and CO₂ emissions in respect of the marketing of new passenger cars

sale, e.g. in car showrooms. Many EU Member States have developed labels that have gone beyond the basic requirements set by the Directive, and some of these include other environmental information (AEA *et al*, 2011). Fuel economy and/or CO₂ labels for new cars also exist in many countries around the world and most focus on fuel economy. However, there are exceptions, as the car label used in Switzerland includes the Euro emissions standard of the new car, in addition to its fuel efficiency and CO₂ emissions (TCS and SuisseEnergie, 2015), while the label used in the United States includes a 'smog rating' (US EPA, 2016).

The **tyre labelling Regulation**²⁷ requires that all new tyres for cars, LCVs and some tyres for HDVs, including buses, have a label attached that provides information on the tyre's fuel efficiency class and its external rolling noise class, as specified in the Regulation (as well as its wet grip class, where relevant). The format of the label is specified by the Directive and requires a colour-coded A to G rating for fuel efficiency and one of three graphic representations of a tyre to illustrate the external rolling noise class. The fuel efficiency classes are determined on the basis of the tyre's rolling resistance coefficient, which has to be less than 6.5 kg/t to receive the best 'A' rating for tyres of cars and LCVs and less than 5.5 or 4.0 kg/t to receive the best rating for tyres of heavier vehicles. In order to receive the best rating for noise a tyre's external rolling noise must be at least 3 dB less than the respective limit values indicated in the General Safety Regulation²⁸. The purchase of the most energy efficient tyres according to the tyre labelling Regulation is also part of the energy efficiency requirements for purchasing products, services and buildings by central government set by the Energy Efficiency Directive²⁹.

There is only one current EU ecolabel that is relevant for transport and that is the **EU ecolabel on lubricants**³⁰. The ecolabel contains a number of criteria, including to:

- Limit the content of specified hazardous substances and mixtures, with reference to both the CLP and REACH Regulations³¹;
- Exclude specific substances above a certain minimal limit, with reference to the water framework Directive³²;
- Limit the adverse effects on the aquatic environment, with reference to *inter alia* an implementing Regulation of the REACH Regulation³³;
- Set requirements for biodegradability and bioaccumulative potential, with reference to the same REACH implementing Regulation;
- Set a minimum requirement for the carbon content derived from renewable raw materials; and
- Set minimum standards for technical performance.

The criteria set in the lubricants EU ecolabel will be valid until the end of 2018³⁴.

²⁷ Regulation (EC) No 1222/2009 on the labelling of tyres with respect to fuel efficiency and other essential parameters

²⁸ Regulation 661/2009

²⁹ Directive 2012/27/EU on energy efficiency

³⁰ Commission Decision 2011/381/EU on establishing the ecological criteria for the award of the EU ecolabel on lubricants

³¹ Regulation 1272/2008 and Regulation 1907/2006

³² Directive 2006/60/EC establishing a framework for Community action in the field of water policy

³³ Council Regulation (EC) No 440/2008 laying down test methods pursuant to the REACH Regulation

³⁴ Commission Decision (EU) 2015/877/EU amending Decisions 2009/568/EC, 2011/333/EU, 2011/381/EU, 2012/448/EU and 2012/481/EU in order to prolong the validity of the ecological criteria for the award of the EU Ecolabel to certain products

1.2.2 Overview of relevant national guidelines and labels

Some countries have extensive ecolabel programmes at the national level, particularly the Blue Angel in Germany and the trans-national Nordic Ecolabel, commonly known as the 'Swan'. These are covered in detail in this section, along with some other relevant ecolabels in place. The section also reviews national guidelines that are in place for road transport vehicles and services, with a focus on the EU Member States although there are some references to guidelines elsewhere in the world.

1.2.2.1 Blue Angel - Germany

The Blue Angel scheme in Germany has numerous ecolabels, covering many different products of which two are relevant for transport (Blue Angel, 2016). The criteria for municipal vehicles and buses (RAL, 2014a) cover road sweepers, waste collection trucks, buses, as well as separate engines in other mobile machinery³⁵ and cover:

- **Pollutant emissions.** The driving engine of the vehicle has to meet the Euro VI emission standards as specified in the HDV emissions Regulation, while any work machinery with a drive engine that Regulation must meet its Euro V standard. Driving engines of work machinery not covered by the HDV emissions Regulation, as well as separate engines for auxiliary units that fall under the NRMM emissions Directive must meet the Stage IV and Stage III emission standards specified in that Directive³⁶. All engines mentioned must also be fitted with a particulate reduction system that reduces particulate matter by at least 99% and the particulate mass by at least 90%.
- **Noise emissions.** Criteria are set to cover driving noise for buses and operating and workplace noise for street sweepers and waste collection trucks. For buses, the criteria are 1 dB(A) less than the legal noise limits set by the noise emissions Regulation for 2016³⁷. These were 3 dB(A) less than the limit values in force in 2014 when the label was finalised. EU legislation does not set emission limit values for the operating noise of street sweepers and waste collection trucks, only requiring that these vehicles are subject to noise marking³⁸.
- **Air conditioning.** The refrigerants used in air conditioning systems in buses must have a global warming potential (referenced to CO₂ and based on a 100-year period) of less than 150. This is consistent with the requirements of the mobile air conditioning Directive, even though the latter only covers cars and small LCVs³⁹. From 2018, all refrigerants used on two-axle buses must be halogen-free.
- **Painting and coating.** Coating materials used must be free from paint raw materials that contain lead, chromium VI and cadmium compounds. Solvent emission limits during coating are set of 70 g/m² (or 50 g/m² for large installations) for waste collection trucks and road sweepers and of 130 g/m² for buses. The stated values are much less than the maximum limits allowed in such products by the paints Directive⁴⁰.

The Blue Angel criteria for lubricants (RAL, 2014b) are similar in scope to those included in the EU ecolabel on lubricants and similarly make reference to the

³⁵ As defined by Directive 97/68/EC

³⁶ Regulation 595/2009 and Directive 97/68

³⁷ Regulation (EU) No 540/2104; the limit values in force in 2014 had been set in Directive 70/157, as amended by Directive 92/97, both of which were repealed by the 2014 noise emissions Regulation.

³⁸ Directive 2000/14

³⁹ Directive 2006/40

⁴⁰ Directive 2004/42

definitions and classification used in the CLP and REACH Regulations⁴¹. The Blue Angel criteria require the following:

- Restriction of the use of certain substances that have a harmful effect on human health and/or the environment, with reference to the CLP and REACH Regulations;
- Requirements as a result of the aquatic toxicity of certain substances;
- Requirements relating to the biodegradability and bioaccumulation potential of substances used;
- Requirements relating to the disposal of selected lubricants; and
- Technical requirements relating to the area in which specific lubricants are used.

1.2.2.2 Nordic 'Swan' Ecolabel – Denmark, Finland, Iceland, Norway and Sweden

The Nordic Ecolabel covers 63 product groups, of which two are relevant to transport: car (and boat) care products; and vehicle wash installations, including installations for cars, buses and trucks (Nordic Ecolabelling, 2016). Both restrict the products that can be used as a result of their potential to cause harm to human health and/or the environment, or as a result of other properties, such as flammability, with reference to the CLP Regulation. They also both have limitations on the constituent parts of the products used, e.g. on the quantity of VOCs, or their characteristics, such as their biodegradability. Additionally, the criteria for the vehicle wash installations include requirements relating to water consumption and the content of waste water (Nordic Ecolabelling, 2013; 2015).

1.2.2.3 Other national ecolabels

The Swedish Society for Nature Conservation (Naturskyddsföreningens) has an ecolabel for passenger transport, as part of its **Bra Miljöval** (Good Environmental Choice) programme. The label puts requirements on the passenger transport services to be covered by the ecolabel, as well as on the electricity or fuel used and on the way in which the vehicle is operated. At a general level, maximum levels are set for:

- Energy supplied must not exceed 0.18 kWh per passenger kilometre;
- CO₂ emissions associated with energy consumption, as measured over the lifecycle, must not exceed 50 gCO₂ per passenger kilometre; and
- NO_x emissions from the operation of transport must not exceed 0.3 gNO_x per passenger kilometre.

Operators must also demonstrate how they are working towards increasing awareness of the origin and environmental performance of the energy carriers that they use. The electricity used must come from renewable sources and at least 50% also has to have the Bra Miljöval label for electricity, which goes beyond a basic requirement to use renewables to include, for example, requirements on energy efficiency. Any fossil fuels used only have to meet legal requirements, as there is no system in place to require more than this. The ecolabelled passenger transport services must have at least one element of their internal operation of the vehicles meeting certain environmental requirements. Options include:

- Ecolabelled toilet, general cleaning or vehicle washing products;
- Ecolabelled lubricants;
- Different bins for different waste streams in order to facilitate recycling; or that
- At least 50% of the range of any food products on sale are organic.

⁴¹ Commission Decision 2011/381, Regulation 1272/2008 and Regulation 1907/2006

More generally, operators must also demonstrate that they are striving to improve their environmental performance (Naturskyddsöreningens, 2011).

Elsewhere in the world, there are **various 'green' label schemes**, including Green Seal and Ecologo in North America, Good Environmental Choice in Australia and New Zealand and various schemes in Asia, but there are few labels of relevance to transport, particularly for vehicles. There is a US Green Seal for alternatively-fuelled vehicles, but this only applies to vehicles using predominantly CNG or electricity, that are maintained for optimum efficiency and which do not fail emission tests (Green Seal, 2013a). Labels for tyres are more common, e.g. in South Korea (KEITI, nd a), Taiwan (Taiwan EPA, nd) and Singapore (Singapore Green Label, nd), for which requirements for rolling resistance are the most common, with other covering noise, wet grip, requirements for durability and on the substances used, e.g. a maximum content for polycyclic aromatic hydrocarbons in Taiwan. There are also various labels for oils, including a US Green Seal for re-refined oils (Green Seal, 2013b) and ecolabels in South Korea for oils used in different types of engine (such as diesel and petrol) (KEITI, nd b). These include requirements on the proportion of re-refined oil, the use of various toxic materials and various other physical and chemical characteristics, such as viscosity. Only two examples of a label for a transport service were identified, both in Taiwan: for car wash services and car rental services (Taiwan EPA, nd b and c). Both labels included various environmental criteria for the operation of the business more generally. Car rental services also had to include a minimum proportion of low polluting, efficient cars in their fleets and to promote eco-driving, while the label for car wash services had requirements for the content of detergents as a maximum average water consumption per wash and requirements on the proportion of waste water to be recycled and reused.

Labels are used in transport for other purposes, including relating to pollution. Beijing has colour-coded labels to indicate the emissions performance in terms of air pollution of vehicles (ICCT, 2015). A recent project for the European Commission's DG Environment was exploring the possibility of introducing a voluntary EU low emissions standard for cars (Cortvriend, 2014).

1.2.2.4 National guidelines for green/sustainable public procurement

Within the EU, various Member States have guidelines on GPP for transport vehicles and some for different types of transport service. Many of the criteria for vehicles in particular draw on the 2012 EU GPP criteria. In some countries, the criteria are not for GPP, but for sustainable public procurement, including social issues. The latter goes beyond the scope of this criteria development process.

One of the more extensive set of criteria is in **Sweden**, which also has various standards for 'green' cars that are applied for different purposes. The national definition is used as the basis of exemptions from vehicle taxes. It estimates the maximum CO₂ emissions that a car can have before it can be considered to be green as a function of its mass in the same way as the EU's passenger car CO₂ Regulation, but in relation to the 2021 target of 95 gCO₂/km (see above)⁴². A car of the same mass using ethanol is allowed to have CO₂ emissions 55 gCO₂/km higher and still be considered to be green, while plug-in cars must have an electric energy consumption of no more than 37 kWh per 100 km to be considered green. A definition of a 'super green' car applies to cars that meet the latest Euro emissions standard, i.e. Euro 6, and have CO₂ emissions of no more than 50 gCO₂/km (Stockolms Stad and Malmö Stad).

There are also various GPP criteria for different vehicles, goods transport services (using heavy and light duty vehicles), tyres and transport fuels in Sweden (see Tables 5, 6 and

⁴² Effectively a car with a mass of 1372 kg would be classified a green car if its CO₂ emissions were 95 g or less. If a car uses ethanol, the maximum CO₂ emissions allowed for a car to be considered green are 150 g.

7). References to EU standards are made in order to define criteria for air pollutants and noise, while maximum CO₂ values are provided for light duty vehicles, including the possibility to use the 'super green' car definition noted above. For the acquisition of heavy duty vehicles, and goods services using all types of vehicle, criteria also relate to the ability to use alternative fuels and to the rolling resistance of tyres (again with reference to the EU Regulation). The Swedish criteria reflect many of the other elements of the 2012 EU GPP criteria, including the need for a vehicle to be equipped with a TPMS, GSI and a support system for energy-efficiency driving, while some elements go beyond the EU criteria, as vehicles should also be equipped with intelligent speed adaptation. For goods transport services, requirements are also put in place for temperature-controlled transport. The criteria also include the application of the CVD's monetisation methodology as an award criterion, and the application of life cycle costing for light duty vehicles. According to its stated scope, goods services using bicycles are covered by the criteria, but there were no specific criteria for bicycle goods services in the document.

The Swedish criteria for tyres include criteria for the use of various substances in tyres and the tyre's lifespan, as well as the application of life cycle costing. The criteria for fuels cover both fossil and renewable fuels and include criteria on compliance with laws and provisions relating to the conservation of land and water in the country of origin, the traceability of fuels and a prohibition on the use of fossil fuels from more carbon-intensive oil feedstocks. Where there is the potential to supply vehicle washing services alongside the supply of fuel, criteria are set for the substances that can be used in the washing process. In relation to the supply of goods transport services and tyres, there is a criterion for the contractor relating to the existence of an environmental management system.

In **the Netherlands**, PIANOo, the tendering expertise centre for government, maintains a set of environmental criteria to use in sustainable public procurement. There are three guides relating to transport: service cars; transport services; and HDV, mobile machinery and their maintenance. The transport services to which the respective criteria are applicable are listed with reference to specified CPV codes and include courier, postal and moving services, but not waste collection services. The criteria used in the guide for service cars draw extensively on the 2012 EU GPP criteria for transport. Most of the criteria are reproduced in full, although the criteria used are all comprehensive criteria, rather than core criteria. The exceptions are the criterion relating to noise emission levels, which is absent, while there are additional criteria. The latter include limits on water and energy used in the course of vehicle cleaning as either a technical specification or an award criterion, and a requirement on contractors to inform the authority where recycled components can be used in the course of the maintenance of the cars as a contract performance clause (see Annex Table A-1). The criteria for HDVs, which also cover mobile machinery, and transport services make fewer references to the EU GP criteria, although similar issues are covered. Additional elements include a longer list of fuel saving options for HDVs (e.g. including aerodynamic features), requirements for tyre maintenance and, for maintenance contracts, a requirement to have an environmental management system in place. For transport services, the main additional element is an award criterion for the 100% compensation of CO₂ emissions through the purchase of credits generated in line with the guidelines of the Clean Development Mechanism. The criteria for service cars and transport services also include a section on 'points of attention/suggestions', which recommends the consideration of alternatives to the procurement of vehicles or services using motorised vehicles (see Tables 6 and 7).

The development of environmental criteria for a range of product groups including transport vehicles and services resulted from the 2010 Action Plan for Sustainable Public Procurement in **Austria** (NABE, 2016). The transport criteria relate to the same categories of vehicles and services as the 2012 EU GPP criteria for Transport, but include fewer of the proposed criteria (see Annex Tables A-1, A-2 and A-3). Most of the criteria used are the same as those in the equivalent section of the EU criteria, with the exception of CO₂ emissions for cars and LCVs, for which the criteria require that the

average CO₂ emissions of the fleet of vehicles purchased are less than the respective car and LCV CO₂ targets for 2015 and 2017, respectively, i.e. 130 gCO₂/km and 175 gCO₂/km (see above).

The UK has Government Buying Standards in place for transport that closely follow the EU GPP criteria. There are mandatory criteria that central government departments and related organisations must adhere to; other public sector organisations are encouraged to use these criteria. Additionally, there are best practice standards that are more comprehensive or stricter for organisations that want to go further. While the distribution of criteria between mandatory and 'best practice' do not always reflect the EU criteria's split between core and comprehensive, the criteria draw heavily on the coverage and formulation of the EU criteria. The criteria in relation to recycling are slightly different as they mention 'designing' for recycling, recovery and reparability, while there are also criteria against the use of tyres containing oils in tread rubber that are subject to labelling under Directive 67/548, which was repealed by the CLP Regulation (see Annex Tables A-1, A-2 and A-3). These standards are currently under review.

The **Danish GPP criteria** for transport are based on the recommendations and advice of the Danish Transport Authority's Centre for Green Transport, supplemented with recommendations from the Danish Partnership for Green Public Procurement, which brings together the national environment ministry and various municipalities. The criteria only apply to cars and LCVs. For CO₂ emissions, reference is made to various categories of the Danish fuel economy label, implemented as a result of Directive 1999/94⁴³. Other elements are similar to those of the EU GPP criteria, although there was a recommendation that noise levels of vehicles should be 3 dB below those required by law. An additional fuel economy option that purchasers were advised to look out for was a speed alarm (see above and Annex Table A-1).

In **Italy** GPP criteria exist for the lease, rental and purchase of light and heavy, passenger and commercial vehicles and cover similar environmental issues to other criteria (see Tables 5 and 6). Criteria are set for the CO₂ emissions of light duty vehicles, whereas heavy duty vehicles have to be fitted with a fuel consumption indicator. Reference is made to the EU emission standards to set criteria for air pollutants and noise, and to the EU GPP criteria and the EU ecolabel to set criteria for lubricants. An additional element that is not common in other criteria is that emissions criteria are set for the purchase of used vehicles, which have to comply with the previous set of Euro emissions standards, i.e. currently Euro 5/V now that Euro 6/VI are applicable. Reference is also made to the monetisation methodology of the EU's CVD to be used as an award criterion.

The **German Action Plan on Sustainability** states that federal authorities and associated institutions should consider using public procurement to continuously improve the energy efficiency of their fleets. It proposes values for the average CO₂ emissions of new cars for both 2018 and 2020, the latter reflecting the EU target of 95 gCO₂/km. The plan also states that priority should be given to procuring vehicles meeting the highest emission standards and having the lowest possible noise emissions. For short business trips, the plan also suggests that authorities provide their employees with the possibility of using official bicycles or electric bicycles (see Annex Table A-1). Some cities in Germany produce similar guidance locally, e.g. Hamburg notes that car sharing, the availability of bicycle fleets and reduced rates on public transport can all be used to reduce the number of official cars (Hamburg, 2016).

However, not all Member States make reference to the EU GPP criteria when setting environmental conditions for the public procurement of transport vehicles. In **Belgium**, a 2009 circular sets out the criteria to be applied when procuring passenger transport

⁴³ The Danish label goes beyond the Directive's requirements, as the Directive does not require a categorised label.

vehicles for government services and other public interest bodies. This has subsequently been complemented by the legislation transposing the EU's CVD. The approach is very different to that set out in the EU's GPP criteria. The circular requires that vehicles be bought with reference to the guidelines in the circular, which include a minimum 'ecoscore' (see Box 1) and an upper limit for the price of each vehicle (Monitor Belge, 2009). In a complementary note, it is recommended that the approach of the circular only be used for passenger cars, as these go beyond the requirements of the CVD, while the approach in the CVD should be used for all other types of vehicles (i.e. N₁, N₂, N₃, M₂ and M₃ vehicles; SFPOSPDD, 2011).

Box 1: The Belgian ecoscore system

The 'ecoscore' system provides a single score for the environmental performance of a vehicle. It covers GHG emissions, which account for 50% of the total score, air pollutant emissions, which account for 40% and noise, which accounts for the remaining 10%.

The GHG score takes account of three GHGs – CO₂, methane and nitrous oxide – and includes both in-use and fuel cycle emissions. The respective gases are weighted according to their respective GWPs. Air pollutant emissions cover carbon monoxide, hydrocarbons, NO_x, PM and sulphur dioxide. External cost values resulting from the ExternE project are used to weight the air pollutant emissions. All values are taken from a vehicle's certificate of conformity. For noise, the vehicle's engine noise value is used. The minimum ecoscore required for small passenger vehicles is 65, whether the vehicle uses petrol, diesel or gas.

A similar scoring system, EcoTest, has been developed by ADAC and the FIA Foundation.

Source: <http://ecoscore.be/how-do-we-calculate-ecoscore>; Monitor Belge (2009); <http://www.ecotest.eu/index.html>

Elsewhere in the world, **Japan** sets criteria for promoting GPP for a number of product groups, including vehicles and transport services, including postal and home delivery services (see Annex Tables A-1, A-2 and A-3). The focus of the criteria for vehicles is on fuel efficiency and, to a lesser extent, emissions of air pollutants. Other factors that might be taken into consideration include many already in the EU GPP criteria, such as the GWP of the air conditioning gases, the use of alternative fuels and stop-start. Considerations that are not explicitly present in the EU GPP criteria include the installation of eco-drive support and a reduction in the amount of lead used (excluding that used in batteries). For transport services, the evaluation criteria focused on the monitoring, promoting and reducing of energy use. Operational matters that might be taken into consideration included modal shift and improvements in the loading capacity of vehicles (GJ, MoE, 2015).

The focus of the GPP guidance for vehicles in both **Norway and New Zealand** is on fuel efficiency and compliance with emissions standards for air pollutants (see Annex Table A-1). Both also have considerations relating to tyres, while New Zealand also has criteria relating to the use of less polluting lubricant and hydraulic oils, the use of alternative fuels and the end-of-life treatment of vehicles, tyres and used oil. In Norway, there was a commitment to explore whether it would be possible to have a CO₂-free or CO₂-neutral requirement for government vehicles by 2020.

UNEP also has guidelines for the procurement of vehicles and for freight forwarding (see Annex Tables A-1, A-2 and A-3). As the criteria are meant to inform public procurement across the world, they tend to be of a more general nature. For vehicles, both fuel efficiency and emissions standards are covered, with the suggestion that additional points be awarded to tenders in which vehicles have a specified fuel efficiency or meet a particular emissions standard. Criteria relating to the recyclability and reusability of the

vehicles are also mentioned, including potentially awarding more points to vehicles using a higher proportion of recycled material and the provision by the contractor of a vehicle take back scheme or a vehicle refurbishment programme. Criteria for freight forwarding also focus on fuel efficiency and emissions, but from the perspective of demonstrating that various actions were undertaken. For example, criteria included the existence of fuel-efficient driver training, the monitoring of fuel consumption and tyre pressure and the installation of aerodynamic features on trucks and their trailers. There was also a range of more operational requirements, including the existence of a corporate environmental policy, which was also mentioned in relation to contractors that supply vehicles, the existence of activities to monitor GHG and air pollutant emissions and a description of measures taken to improve overall environmental performance.

Finally, in its sustainable public procurement manual **ICLEI** included criteria that might be used to procure buses. For the direct procurement of buses, proposed criteria made references to respective EU standards for air pollutant and noise emissions and that meters be fitted to monitor fuel usage. Proposed criteria for procuring bus services covered similar issues, but were less ambitious in terms of environmental requirements as they were to be applied to all buses used in carrying out the service. Suggested contract provisions included reporting on the annual km driven by the cleanest buses with a requirement that the proportion must increase by 10% annually and that all bus drivers employed in carrying out the service are trained in environmentally-conscious driving by a recognised institution (ICLEI, 2007).

1.2.3 Overview of relevant standards, guidelines and initiatives used in the private sector

In addition to their involvement in public procurement, private stakeholders can also influence the environmental performance and characteristics of fleets in their own procurement processes. This section describes various initiatives: there are some initiatives, which focus on the procurement itself, but there are more initiatives, which try to stimulate fleet owners to green their fleets by means of various tools and monitoring instruments. This can give fleet owners an advantage when environmental criteria are set in procurement processes. These private stakeholders might also demand higher environmental performances in their own procurement services, however there is not much information available on the procurement processes of individual market actors.

1.2.3.1 Private procurement initiatives

In 2010, three Dutch companies introduced a sustainable concept for the logistics sector, called **Green Tender** (Connekt, 2010). The idea is that a Green Tender not only involves criteria for 'performance', but also sustainable criteria for 'people' and the 'planet'. Using the Green Tender questionnaire, shipping agents and hauliers can assess the sustainability performance of the third parties to whom they subcontract transport. The questions in the questionnaire involve finance, capacity, and service (i.e. performance), safety and security, quality certificates, and corporate communication (people), and Euro-standards, environmentally-friendly fuels, and the number of empty miles (planet). The input of hauliers has been used to establish the questions.

UITP has published UITP recommendations for the structure of tender documents in **UITP Tender Structure (UITP, 2009)**. In drafting these recommendations a UITP working groups conducted a review of current rules and observed practices in the EU. The recommendations are meant for the purchase/offering of buses and related services, but can also be applied more broadly. Operators, manufacturers and organising authorities were all involved in the process. The second version of the recommendations dealt with environmental issues, such as environmental award criteria, LCC, eco-driving etc.

1.2.3.2 Standardisation initiatives

The International Workshop Agreement **IWA 16:2015** (ISO, 2015) defines a framework for a coherent quantification of CO₂-eq emissions of freight transport. The framework is defined at three levels:

- Cargo, to estimate the emissions of the individual cargo;
- Transport chain elements (TCE), where a TCE is seen as an indivisible logistics operation and all TCEs together sum up to the transport chain; and
- Network, to be able to optimize the emissions of transport organizations over their entire network.

On these levels, the framework provides a comparative analysis between the starting point and the recommended situation on mode-specific and intermodal levels, including transshipment centres and warehouses.

The European **EN 16258:2012** standard (CEN, 2012) provides a common methodology for the calculation of energy consumption and greenhouse gas emissions, related to the transport of freight, passengers or both. The standard specifies general principles, definitions, system boundaries, calculation methods, allocation rules, and data recommendations. It is aimed especially at freight or passenger carriers, carriers subcontracting transport operations, freight forwarders, travel agencies, shippers, and passengers.

The **SORT project** was an initiative of the UITP Bus Committee, which resulted in a co-operation between UITP, VDV, operators and leading EU manufacturers of both vehicles and transmissions. The main aim was to design reproducible test cycles of on-road tests of buses in order to enable the monitoring of fuel consumption and to be able to compare buses. In 2014 a protocol was developed and published on applying diesel SORT testing methodology to hybrid vehicles (SORT-Hy; UITP, 2014).

1.2.3.3 Other market initiatives

The **Fleet Operator Recognition Scheme** (FORS) (FORS, 2016) is a voluntary accreditation scheme in the UK, which takes account of all aspects of safety, fuel efficiency, vehicle emissions and improved operations. FORS is meant for operators of LCVs, trucks, mini-buses, coaches and other vehicles, and companies that subcontract to these operators. The aim of FORS is to help them to measure, monitor, and improve performance on the aforementioned aspects. FORS offers best practice toolkits, of which

the Fuel Use Tracker is the most relevant for sustainability, tracking fuel use to improve fuel efficiency and CO₂ emissions.

The British **ECO Stars** scheme (ECO Stars, 2016) provides an assessment of the current operational and environmental performance of a fleet. The members of the scheme (operators of HGVs, buses, coaches, vans, and taxis) are awarded between 1 and 5 stars based on six pillars:

- Fleet composition;
- Fuel management;
- Driver skills development;
- Vehicle specification and preventative maintenance;
- IT support systems; and
- Performance monitoring and management.

The European Commission project **RECODRIVE** (RECODRIVE, 2010) ended in 2010 and was aimed at merging existing ecodriving initiatives with good fleet management and logistics optimization practices. In the project, policy guidelines were developed for fleet owners to set up recognition and rewarding schemes for drivers, managers, and procurement and maintenance staff.

Lean and Green (Connekt, 2016) is a Dutch public-private network for sustainable mobility (now also extended to other countries). The program aims to stimulate logistics companies to reduce their transport-related emissions. Companies which can prove to have reduced their emissions by 20% in five years receive a 'Lean and Green Star'.

The **Green Freight Europe** (GFE) initiative (GFE, 2016) was started by several multinational companies (both shippers and transport operators) and aims to establish a pan-European system to collect, analyse, and monitor greenhouse gas emissions from freight transport by road. The initiative also aims for best-practice sharing, access to verified green technologies and a future certification of green transport service providers.

1.2.4 Synthesis on existing legislation, standards and criteria

It is clear from the review undertaken in this section that the **EU policy framework** supports the improvement of the environmental performance of transport. A clear policy framework exists to reduce the GHG emissions of cars and LCVs by improving their fuel efficiency, while the use of alternative fuels is also promoted by various pieces of legislation. However, technology is developing fast and some technologies that were considered at the cutting edge when the previous EU GPP criteria for transport were being developed are now common place, or even required by legislation.

The focus of policy that aims to reduce air pollutants has shifted from test cycle emissions to real world driving emissions, at least for cars and LCVs. All new HDVs and NRMM have to meet the most recent emission standards, although the Commission has proposed to make the emission standards for the latter more stringent. A set of continuously more stringent noise emission limits values for LDVs and HDVs was adopted in 2014, which sets three phases of emission limit values out to the mid-2020s. EU waste policy also makes sure that the manufacture and disposal of vehicles, lubricants oils and tyres in particular do not damage human health or the environment. The policy framework has clearly developed since the 2011 Technical Report that supported the development of the 2012 EU GPP criteria for transport, and so will inform the development of the revised criteria later in the project.

At the **national level**, a couple of Member States have relevant ecolabels and several have GPP criteria in place for transport. The most extensive set of ecolabels identified were the 'Blue Angel' in Germany and the 'Swan' used across the Nordic countries, while the Good Environmental Choice (Bra Miljöval) labels produced by the Swedish Society for

Nature Conservation cover other services of relevance. The most extensive GPP criteria identified were in Sweden and the Netherlands. Many of the ecolabels and GPP criteria closely followed, and made reference to, the EU GPP criteria for transport. Indeed, some countries use the same categories and very similar text for many of their criteria. Hence, national ecolabels and GPP criteria also often refer directly to EU legislation, such as that discussed in Section 1.2.1. In most cases, national ecolabels and GPP criteria covered a subset of the categories and environmental issues covered in the EU criteria, although there were exceptions.

The German Blue Angel ecolabel for 'municipal vehicles and buses' covers the painting and coating of vehicles (with reference to the Paints Directive), while 'municipal vehicles' include road sweepers in addition to waste collection trucks. The Nordic Swan has ecolabels for car care products and for vehicle wash installations (for cars, buses and trucks). In Sweden, the Good Environmental Choice for passenger transport services includes a number of ambitious criteria, including for the energy supplied, and CO₂ and NO_x emissions per passenger kilometre. Elsewhere in the world, ecolabels in Taiwan cover car wash and car rental services.

In Sweden, the national definition of a 'green car' includes a reference to the maximum electric energy consumption of plug-in car above which it does not qualify as being a 'green car'. There are also GPP criteria for goods transport services and fuel supply, which also cover vehicle washing. In the Netherlands, the three sets of criteria refer explicitly to the CPV categories that are covered, which for transport services are broader than the EU criteria including courier, postal and moving services. Criteria for vehicle cleaning are also included in the guidelines for procuring service cars. Both the Swedish and the Dutch criteria make reference to contractors having appropriate environmental management systems in place, while the Dutch criteria for transport services also make reference to the use of 100% compensation of CO₂ emissions through the purchase of CDM credits as an award criterion.

In other Member States, there are few categories or criteria that are not mentioned in the 2012 EU GPP criteria for transport. In Italy, there are GPP criteria to cover the purchase of used vehicles (cars, vans and HDVs), which might be relevant for some other Member States. Elsewhere in the world, in Japan there are criteria for postal and home delivery services, while UNEP has defined criteria that could be used for freight forwarding.

The growth in various **private initiatives** shows that there is growing attention on the environmental performance of private fleets. Most private initiatives are focused on freight transport and aim to improve monitoring and data analysis of fleet performances, mainly on CO₂ and fuel consumption, but also on other indicators. Various instruments, such as toolkits, have been developed to enable this monitoring and to enable continuous improvement. Private actors participating in these schemes have a comparative advantage when participating in public procurement procedures, but might also have an advantage when private actors demand higher environmental performance in their procurement schemes. There is, however, not much information on the individual procurement schemes of private actors, other than the initiatives listed in this chapter.

1.3 Overview of statistical and technical categories

The aim of this section is to provide an overview of existing statistical and technical categories that could be used to define categories of product groups for the revised EU GPP criteria. Hence, this section investigates agreed definitions of potentially relevant transport vehicles and services that could be applied EU-wide for the purpose of defining the EU GPP criteria. This includes passenger as well as freight transport and both vehicles and services.

1.3.1 The need for statistical and technical categories

In the case of public contracts the development of effective competition is desirable and therefore should be ensured. To reach this it is necessary that contract notices are advertised throughout the Community. The information in these contract notices should contain sufficient information for economic operators to be able to determine the relevance of the contracts for their businesses. Several instruments can be used to improve the visibility of relevant contracts, such as the use of standard statistical and technical categories and the Common Procurement Vocabulary (CPV) as the reference nomenclature for public contracts. Another reason to use statistical and technical categories is to be able to monitor and analyse trade and other economic developments on the EU market.

1.3.1.1 *Relevant legislation*

There are several classification systems, which are used in practice. The following Directives and Regulation include a classification system or prescribe the use of systems:

- Directive 2007/46/EC establishing a framework for the approval of motor vehicles and their trailers, and of systems, components and separate technical units intended for such vehicles;
- Regulation 168/2013 on the approval and market surveillance of two- or three-wheel vehicles and quadricycles (L-category vehicles);
- Regulation 1370/2007 on public passenger transport services by rail and by road;
- Directive 2014/24/EU on public procurement and repealing Directive 2004/18/EC;
- Directive 2014/25/EU on procurement by entities operating in the water, energy, transport and postal services sector and repealing Directive 2004/17/EC; and
- Regulation 213/2008 as regards the revision of the CPV.

Directive 2007/46 regulates the EC type approval of vehicles. The main objective of the legislation is to ensure that new vehicles, components and separate technical units put on the market provide a high level of safety and environmental protection.

Article 3 lays down the following general definitions:

- Motor vehicle: any power-driven vehicle which is moved by its own means, having at least four wheels, being complete, completed or incomplete, with a maximum design speed exceeding 25 km/h.
- Trailer: any non-self-propelled vehicle on wheels which is designed and constructed to be towed by a motor.
- Vehicle: means any motor vehicle or its trailer as defined by the two definitions above.
- Hybrid motor vehicle: a vehicle with at least two different energy converters and two different energy storage systems (on-vehicle) for the purpose of vehicle propulsion.
- Hybrid electric vehicle: a hybrid vehicle that, for the purpose of mechanical propulsion, draws energy from both of the following on-vehicle sources of stored energy/power: a consumable fuel or an electrical energy/power storage device (e.g. battery, capacitor, flywheel/generator, etc.).

Furthermore, Annex II provides more detailed definitions of vehicle categories and vehicle types. With respect to road transport the definitions depicted in Table 2 are included in the Directive.

Table 2: Definitions for road transport of Annex II of Directive 2007/46/EC

M	Motor vehicles with at least for wheels designed and constructed for the carriage of passenger
M ₁	Vehicles designed and constructed for the carriage of passengers and comprising no more than eight seats in addition to the driver's seat
M ₂	Vehicles designed and constructed for the carriage of passengers, comprising more than eight seats in addition to the driver's seat, and having a maximum mass not exceeding 5 tonnes.
M ₃	Vehicles designed and constructed for the carriage of passengers, comprising more than eight seats in addition to the driver's seat, and having a maximum mass exceeding 5 tonnes.
N	Motor vehicles with at least four wheels designed and constructed for the carriage of goods
N ₁	Vehicles designed and constructed for the carriage of goods and having a maximum mass not exceeding 3,5 tonnes
N ₂	Vehicles designed and constructed for the carriage of goods and having a maximum mass exceeding 3,5 tonnes but not exceeding 12 tonnes
N ₃	Vehicles designed and constructed for the carriage of goods and having a maximum mass exceeding 12 tonnes.
O	Trailers (including semi-trailers)
O ₁	Trailers with a maximum mass not exceeding 0.75 tonnes
O ₂	Trailers with a maximum mass exceeding 0.75 tonnes but not exceeding 3,5 tonnes.
O ₃	Trailers with a maximum mass exceeding 3,5 tonnes but not exceeding 10 tonnes.
O ₄	Trailers with a maximum mass exceeding 10 tonnes.
Special vehicles	
Motor caravans	
Armoured vehicles	
Ambulances	
Hearses	
Trailer caravans	

Mobile cranes
Other special purpose vehicles
Wheel-chair accessible vehicles

The current EU GPP criteria for transport have been developed for three main vehicle groups and refer to the above mentioned vehicle categories:

- The 'cars and LCVs' product group encompasses vehicles classified as M₁ (passenger cars, all sizes) and N₁;
- The 'buses' product group encompasses vehicles classified as M₂ and M₃ vehicles (buses of various sizes); and
- The third vehicle group, waste disposal trucks, are not further defined: such specialist vehicles are almost exclusively produced for the public sector and are characterised by different duty cycles in terms of speed, amount of stops and auxiliary load etc.). Therefore these should be treated differently than other heavy duty vehicles. Although criteria have been developed no strict definition has been presented. According to the Technical Background report, size and class considerations also do not apply to buses and waste collection trucks, because their selection is more based on real performance requirements than passenger vehicles.

Regulation 168/2013 regulates the approval of L-category vehicles and applies to all two- or three-wheel vehicles and quadricycles as categorised in Article 4 and Annex I ('L-category vehicles') of the regulation. Below the various categories are depicted. 'L-category' vehicles include the more powerful powered cycles, mopeds and motorcycles, as well as small and larger four-wheeled vehicles that increasingly resemble M₁ vehicles the heavier they are (see Table 3). Note that some categories also have subcategories, which further define the vehicles.

Table 3: Classification of L-category vehicles according to Regulation 168/2013

Type of vehicle	Category
light two-wheel powered vehicle	L1e
three-wheel moped	L2e
two-wheel motorcycle	L3e
two-wheel motorcycle with side-car	L4e
powered tricycle	L5e
light quadricycle	L6e
heavy quadricycles	L7e

Regulation 1370/2007 on public passenger transport services by rail and by road lays down 'the conditions under which competent authorities, when imposing or contracting for public service obligations, compensate public service operators for costs incurred and/or grant exclusive rights in return for the discharge of public service obligations'.

The Regulation does, however, not provide clear definitions for the various public transport services and is therefore less relevant in the context of this report.

Directive 2004/17 regulates the coordination of the procedures for awarding public procurement in the water, energy, transport and postal services sectors, while **Directive 2004/18** lays down EU rules for awarding contracts for public works, supplies and services. Both Directives address the need to assure the opening of the market, as well as a fair balance in the implementation of the procurement in the respective sectors. They will be replaced by Directive 2014/24 and Directive 2014/25 in 2016, which means that the 2014 Directives will be in place at the time of the new GPP criteria for transport.

The 2014 Directives refer to two product classification systems, namely:

- Nomenclature statistique des activités économiques dans la Communauté européenne (NACE); and
- CPV as laid down in Regulation No 2195/2002 on the CPV.

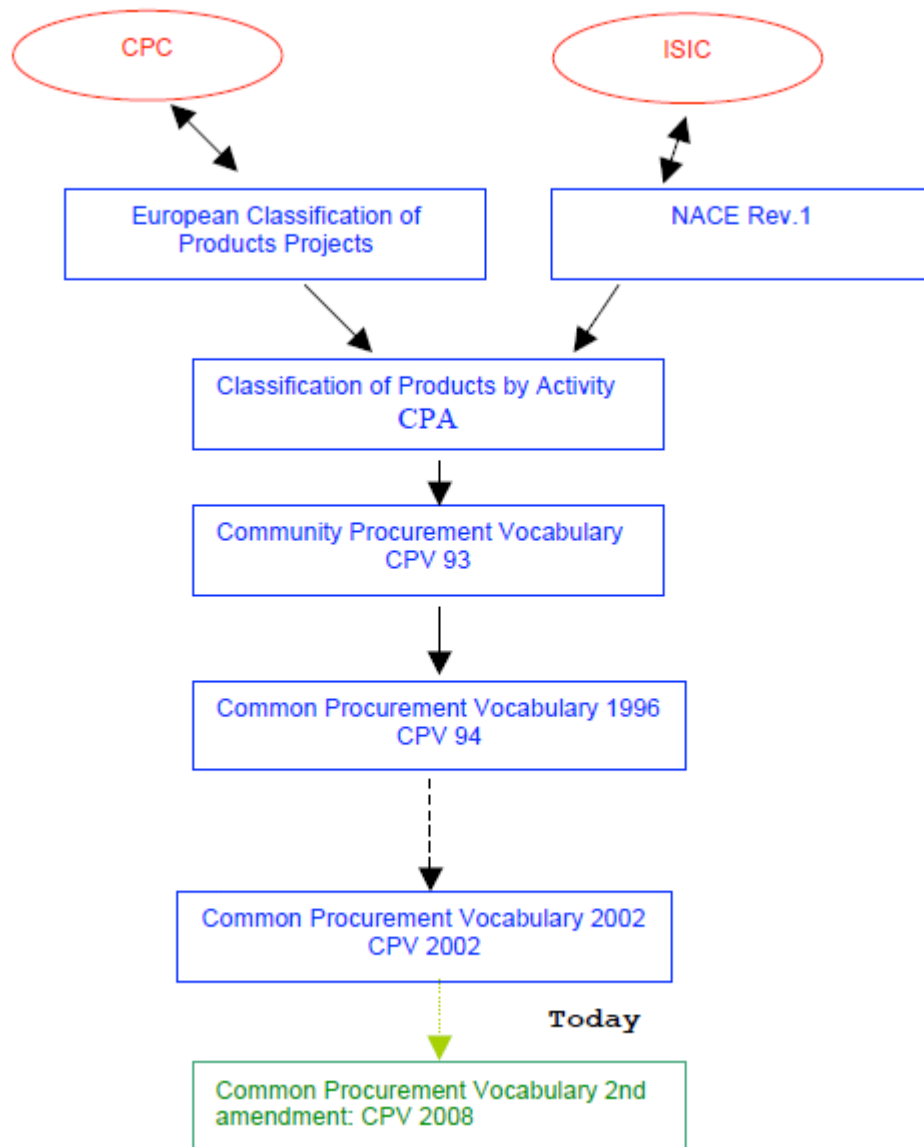
Annex I of these Directives states that in the event of any difference of interpretation between the CPV and the NACE, the CPV nomenclature will apply.

As result of these various classification systems there are not only differences between public and private procurement, but also within public procurement itself as a result of the various schemes overlapping with the CPV, such as CPC and NACE.

In Figure 2 a schematic overview of the link between the various systems is depicted. It shows that the CPV can be traced back to several international nomenclatures:

- **CPC**, which is an international nomenclature developed by the United Nations in order to monitor world trade;
- **International Standard Industrial Classification (ISIC)** has also been developed by the United Nations as a nomenclature to classify economic activity. The European version of ISIC is **NACE**, which was first published in October 1990 (NACE Rev.1). NACE is more suited to the presentation and monitoring of European economies; and
- **Classification of Products by Activity (CPA)**, which is based on CPC and NACE. The final version of the CPA was produced in August 1992.

Figure 2: Schematic overview of the various classification systems for economic activities and products (European Commission, 2008)



1.3.1.2 NACE

NACE provides a framework for statistical data on economic activity and works with a four-digit classification. *NACE Rev. 2*, the most recent revision of the classification system, was adopted at the end of 2006⁴⁴ and implemented starting from 2007. This means that first compatible statistics are available from 2008 onwards.

The structure of the NACE codes is laid down in the NACE Regulation and is build up as follows:

- Sections indicated by an alphabetical code.
- Divisions indicated by a two-digit numerical code.
- Groups indicated by a three-digit numerical code.

⁴⁴ Regulation (EC) No 1893/2006 of the European Parliament and of the Council of 20 December 2006 establishing the statistical classification of economic activities NACE Revision 2 and amending Council Regulation (EEC) No 3037/90 as well as certain EC Regulations on specific statistical domains Text with EEA relevance

- Classes indicated by a four-digit numerical code.

1.3.1.3 PRODCOM

While NACE determines economic activities, PRODCOM is used to provide statistics on the production of manufactured goods, so on a product level. The abbreviation stands for the French term "PRODUCTION COMMUNAUTAIRE" (Community Production) for mining, quarrying and manufacturing: sections B and C of NACE 2 (Eurostat, 2016). The PRODCOM codes are not only linked to NACE 2, but also to CPA and are structured by means of eight-digit codes in the following way:

XX.XX.YY.ZZ

The first four digits correspond to the NACE 2 classes. The first six digits represent the CPA code and the last two digits represent the classification of a heading within the CPA heading and specify the product in more detail. Most of the PRODCOM codes correspond to one or more of the codes from the Combined Nomenclature, but not all of them.

1.3.1.4 CPV

The CPV consists of a main vocabulary for defining the subject of a contract, and a supplementary vocabulary for adding further qualitative information. The **main vocabulary** is based on a tree structure comprising codes of up to nine digits associated with a wording that describes the supplies, works or services forming the subject of the contract. There are various levels of classification, as followed:

- Divisions identified by the first two digits;
- Groups identified by the first three digits;
- Classes identified by the first four digits; and
- Categories identified by the first five digits.

Each of the last three digits gives a greater degree of precision within each category. A ninth digit serves to verify the previous digits.

The **supplementary vocabulary** may be used to expand the description of the subject of a contract. The items in the supplementary vocabulary are made up of an alphanumeric code with a corresponding wording allowing further details to be added. The alphanumeric code is made up of:

- A letter corresponding to a section (the first level);
- Four digits, the first three of which indicate a subdivision, while the fourth is for verification (the second level).

1.3.2 Overview per transport mode

The previous section described the various classification systems and their structure and relation with other classification systems. This section focuses on the relevant statistical definitions for those categories that are currently included in the 2012 EU GPP criteria, or which could potentially be included in the revised EU GPP criteria, i.e.:

- Cars and LCVs;
- Buses;
- Bus services;
- Waste collection trucks;
- Waste collection services;
- Courier and postal services, and;
- Other potential categories.

1.3.2.1 Cars and LCVs

As noted above, **Directive 2007/46** defines cars and LCVs as M₁ and N₁ vehicles, respectively, as follows:

- M₁: Vehicles designed and constructed for the carriage of passengers and comprising no more than eight seats in addition to the driver's seat.
- N₁: Vehicles designed and constructed for the carriage of goods and having a maximum mass not exceeding 3.5 tonnes.

The relevant **CPV-codes** for cars and LCVs are listed in: *Division 34 Transport equipment and auxiliary products to transportation*. Passenger cars fall under 'motor vehicles':

- 341100000 Passenger cars
- 341150000 Other passenger cars
 - o 34115200: Motor vehicles for the transport of fewer than 10 persons
 - o 34115300: Second-hand transport vehicles

Electric vehicles have a different individual code under 'motor vehicles'. LCVs (3413500) also fall under 'motor vehicles' and include the following categories of LCV:

- 34136100: Light vans
- 34136200: Panel vans
- 34137000: Second-hand goods vehicles
- 34138999: Road tractor units

As **NACE** only describes economic activities and not products, there are no relevant definitions for cars and LCVs in NACE. The manufacturing of vehicles falls under *C Manufacturing*, which includes different definitions for motor vehicles, bodies for motor vehicles and part and accessories. However, within public procurement procedures transport related criteria are only likely to define the end characteristics of vehicles and will not cover manufacturing processes.

The **PRODCOM** list uses various technical characteristics to define vehicles, such as the type of combustion and cylinder capacity. The relevant categories are provided in Table 4. Note that the codes for good vehicles only differentiate between the type of combustion and do not include any reference to the size of the goods vehicles.

Table 4: PRODCOM-codes

- 29.10	Manufacture of motor vehicles
+ 29.10.11	Spark-ignition reciprocating internal combustion piston engines for vehicles, of a cylinder capacity ≤ 1000 cm ³
+ 29.10.12	Spark-ignition reciprocating internal combustion piston engines for vehicles, of a cylinder capacity > 1000 cm ³
+ 29.10.13	Compression-ignition internal combustion piston engines for vehicles
+ 29.10.21	Vehicles with spark-ignition engine of a cylinder capacity ≤ 1500 cm ³ , new
+ 29.10.22	Vehicles with spark-ignition engine of a cylinder capacity > 1500 cm ³ , new
+ 29.10.23	Vehicles with compression-ignition internal combustion piston engine (diesel or semi-diesel), new
+ 29.10.24	Other motor vehicles for the transport of persons
+ 29.10.30	Motor vehicles for the transport of 10 or more persons
+ 29.10.41	Goods vehicles, with compression-ignition internal combustion piston engine (diesel or semi-diesel), new
+ 29.10.42	Goods vehicles, with spark-ignition internal combustion piston engine; other goods vehicles, new

1.3.2.2 Buses

With respect to the vehicle category buses **Directive 2007/46** includes two definitions to define vehicles comprising more than eight seats:

- M₂: Vehicles designed and constructed for the carriage of passengers, comprising more than eight seats in addition to the driver's seat, and having a maximum mass not exceeding 5 tonnes.
- M₃: Vehicles designed and constructed for the carriage of passengers, comprising more than eight seats in addition to the driver's seat, and having a maximum mass exceeding 5 tonnes.

As with cars and LCVs the relevant **CPV-codes** can be found in *Division 34 Transport equipment and auxiliary products to transportation* under the general code 'motor vehicles' and more specifically under code 34120000- 'Motor vehicles for the transport of 10 or more persons':

- 34121100 - Public service buses
- 34121100 - Articulated buses
- 34121300 - Double-decker buses
- 34121400 - Low-floor buses
- 34121500 - Coaches

'Motor vehicles' also includes a specific code for electric buses.

As mentioned under 'cars and LCVs', **NACE** only covers the manufacturing of vehicles, which are not relevant for the EU GPP criteria for transport, because only the end produce of the manufacturing process is relevant for public authorities. For buses the **PRODCOM**-relevant category is:

- 29.10.30 - Motor vehicles for the transport of 10 or more persons.

1.3.2.3 Bus services

Directive 2007/46 does not include definitions for services, only for vehicles. Division 60 of the **CPV-system** includes the definitions for *Transport services*, but excludes waste transport. Below the type of transport services under road transport services are listed:

- Group 601: Road transport services
 - o 60112000-6 Public road transport services
 - o 60120000-5 Taxi services
 - o 60130000-8 Special-purpose road passenger-transport services
 - o 60140000-1 Non-scheduled passenger transport
 - o 60170000-0 Hire of passenger transport vehicles with driver
 - including 60170000-7 Hire of passenger cars with driver and 60172000-4: Hire of buses and coaches with driver

All of these services can also be classified as bus services, although taxi services might be more relevant for cars rather than buses. The group *Road transport services* does not include:

- Sleeping-car services, which are found in class 5526.
- Dining-car services, found in class 5532.
- Hire of passenger transport vehicles without driver, found in group 341 adding the CPV Supplementary Vocabulary code PA01-7 Hire.
- Ambulance services, found in class 8514.
- Hire of goods-transport vehicles without driver, found in class 3413 adding the CPV Supplementary Vocabulary code PA01-7 Hire.

Under **NACE** bus services fall under code 4931 under *H Transportation and storage: Urban and suburban passenger land transport, which includes various bus services*.

There is a long list of synonyms (CSO, 2014). **PRODCOM** is not relevant for bus services, because it only includes the classification of products, not of services.

1.3.2.4 Waste collection trucks

Directive 2007/46 does not provide a specific definition for waste collection trucks. Within the **CPV-system** waste collection trucks also fall within *Division 34 Transport equipment and auxiliary products to transportation* and fall under 'vehicles for refuse and sewage' and more specifically under 34144510: 'vehicles for refuse':

- 34144511 Refuse-collection vehicles.
- 34144512 Refuse-compaction vehicles.
- 34144520 Sewage tankers.

As indicated earlier **NACE** only describes economic activities and not products and therefore is not relevant for this category. Within **PRODCOM** 29.10.41 and 29.10.42 both represent goods vehicles, but no specific definition of waste collection trucks is included.

1.3.2.5 Waste collection services

No definitions for services are included in **Directive 2007/46**. Waste collection services are exclusively excluded from 'transport services' of the **CPV-system**, but seem to fall under *Division 90: Sewage-, refuse-, cleaning-, and environmental services*:

- Group 905: Refuse and waste related services
 - o 90511000-2 Refuse collection services
 - o 90512000-9 Refuse transport services
 - o 90514000-3 Refuse recycling services

There might be some other waste-related services which could also be relevant, but which are more linked to cleaning services, such as the cleaning of public areas. Under **NACE** waste collection services fall under *38 Waste collection, treatment and disposal activities; materials recovery* and covers both *Collection of non-hazardous waste (3811)* and *Collection of hazardous waste (3812)*. **PRODCOM** is not relevant for this category, because it only covers the classification of products and not of services.

1.3.2.6 Courier and postal services

Directive 2007/46 does not provide any definitions for services, only for vehicles. Within the CPV postal and courier services are listed under *Division 64 'Postal and telecommunications services under Transport services*. Group 641 'Post and courier services' includes Class 6411: Postal services:

- 64111000-7 postal services related to newspapers and periodicals.
- 64112000-4 postal services related to letters.
- 64113000-1 postal services related to parcels.
- 64114000-8 post office counter services.
- 64115000-5 mailbox rental.
- 64116000-2 post-restante services.

Group 641 also includes *Class 6412: Courier services*:

- 64121000-1 Multi-modal courier services
 - o 64121100-1 Mail delivery service
 - o 64121200-2 Parcel delivery service

Mail transport by road is also specifically mentioned under division 60 'Transport services', which also includes parcel services. Note that the Dutch GPP criteria (see Annex Table A-3) for transport in addition also refer to:

- 79570000-0 - Mailing-list compilation and mailing services
- 79571000-7 - Mailing services

The Dutch criteria also refer to mail transport by rail, airmail and mail transport over water, but since the EU GPP criteria focused on road transport modes, we do not include these here. Postal and courier activities fall under *H Transportation and storage* of the **NACE-system**. The specific labels and synonyms are depicted in Table 5. **PRODCOM** is not relevant for this category, because it only covers the classification of products and not of services.

Table 5: Classification under NACE

Code	Label	Synonyms
5310	Postal activities under universal service obligation	An Post, An Post Parcel Services, General Post Office (GPO), Mail distribution and delivery, Post activities, Post office, Post office regional headquarters, Post office stores department, Postal headquarters, Postal sorting office, Poste restante, Sub post office, Parcels distribution and delivery
5320	Other postal and courier activities	City messenger, Courier activities, Courier service, Goods taxi service, Letter-post delivery service (not post office), Licensed carriers, Mail handling, Messenger, Messenger (own account), Messenger service, Parcels delivery service (not post office), Unlicensed carriers, Home deliveries service

1.3.2.7 Other potential categories

Directive 2007/46/EC mentions the following vehicles as special vehicles:

- Motor caravans.
- Armoured vehicles.
- Ambulances.
- Hearses.
- Trailer caravans.
- Mobile cranes.
- Other special purpose vehicles.
- Wheel-chair accessible vehicles.

Some of these vehicles might also be relevant in procurement processes. Under the **CPV** Ambulance services fall under '*Division 85: Health and social work services*' - *Group 851: Health services*:

- Class 8514: Miscellaneous health services.
 - o Ambulance services which consist of general and specialised medical services delivered in the ambulance.

The CPV also has codes for the vehicles itself, but these are less likely to be procured directly. The Dutch GPP criteria (see Annex Table A-3) also refer to moving services and the related codes under the CPV (see Table 6):

Table 6: CPV codes for moving services

Moving Services	
Employee relocation services	79613000-4
Cargo handling and storage services	63100000-0
Relocation services	98392000-7

1.3.3 Conclusions

The CPV system seems to be the most appropriate system in combination with the definitions of Directive 2007/46. PRODCOM and NACE seem to be less appropriate because they are limited to services or products. Compared to NACE and CPV, Directive 2007/46 and PRODCOM seem to provide the most technical definitions referring to technical characteristics of the vehicles, while the definitions of CPV are very broad. Overall, the existence of such many classification systems might be a barrier for harmonisation.

1.4 Stakeholder survey

1.4.1 The survey: questionnaire and distribution

As noted above, the aim of the survey was to gather the views of relevant stakeholders on the existing EU GPP criteria, particularly whether there was a need to modify or remove each criterion. The intention was to engage with a range of stakeholders in order to ensure that all relevant views were taken into account in the course of the revision of the criteria.

The questionnaire for the survey was developed with reference to recent surveys for other GPP product groups in order to ensure that good practice elements from these surveys were taken on board. The 2012 GPP criteria for transport are extensive as they cover five categories of vehicle and service, and between nine and 16 different criteria for each category. Consequently, most of the supporting information relating to the definition of each criterion was included in an Annex.

The questionnaire was divided into four separate sections. Section A asked for factual information about the respondent in order to provide context for the remaining answers. The focus of Section B was on the scope of the criteria, i.e. the categories of transport vehicles and services covered by the guidelines. Currently, criteria are set for the purchase or lease of three categories of vehicle: light duty vehicles (i.e. cars and LCVs), buses and waste collection trucks. Two categories of related services are also covered, i.e. bus services and waste collection services. The questionnaire asked whether these categories should be retained, how they should be defined and whether additional categories, such as postal and courier services, should be included.

The criteria themselves were the subject of Section C of the questionnaire. For each criterion in each category, respondents were asked for their views on whether the criterion should remain unchanged, or whether it should be modified or removed. Space was left for respondents to explain the reasoning behind their answer. The section concluded by asking whether there was a need for any additional environmental criteria and also about the relevant criteria that should be included in any additional category proposed by the respondent. Section D focused on identifying the extent to which the criteria were used, and the associated experience of both procurers and suppliers.

The questionnaire was distributed to members of the EU GPP Advisory Group, Member State contact points for the Public Procurement Network⁴⁵, as well as to stakeholders of direct relevance to transport. The latter included various industry associations, including manufacturers of vehicles and other automotive products, suppliers and associations representing relevant transport services, as well as to user groups, environmental groups and city networks. The latter in particular were encouraged to circulate the questionnaire to their members.

Section 1.4.2 analyses the responses to the survey only in relation to the categories of vehicle and service covered and the definition of these, i.e. Section B of the questionnaire. The analysis of the remaining responses will be undertaken in the Task 3 report.

1.4.2 Analysis of the responses

1.4.2.1 Overview of respondents

By the 10th March 2016, 25 responses to the stakeholder survey had been received. A couple of additional responses are anticipated, which will be incorporated into later versions of this or other reports. Respondents represented stakeholders from ten different Member States, while three EU level networks or consumer/environmental

⁴⁵ http://www.publicprocurementnetwork.org/index.php?option=com_content&view=article&id=69&Itemid=53

organisations also submitted a response (see Figure 3). A wide range of stakeholders were also represented, including manufacturers and national ministries. Around half of all of the responses were from public transport operators, public procurers or associated authorities (see Figure 4).

Figure 3: Breakdown of respondents by Member State

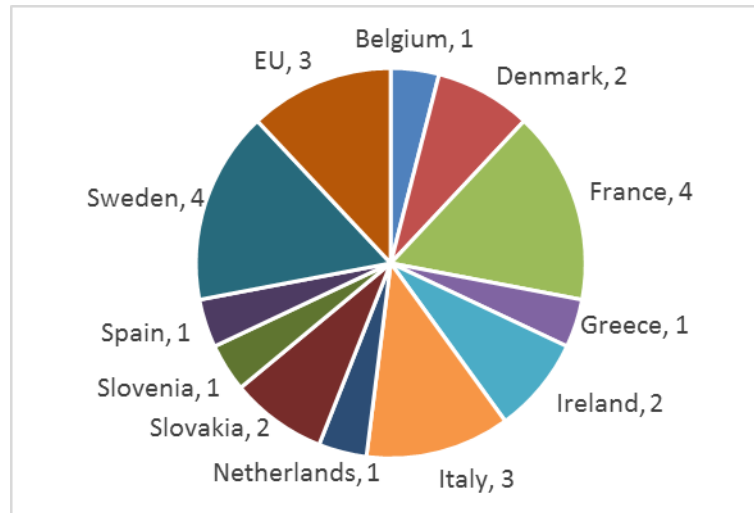
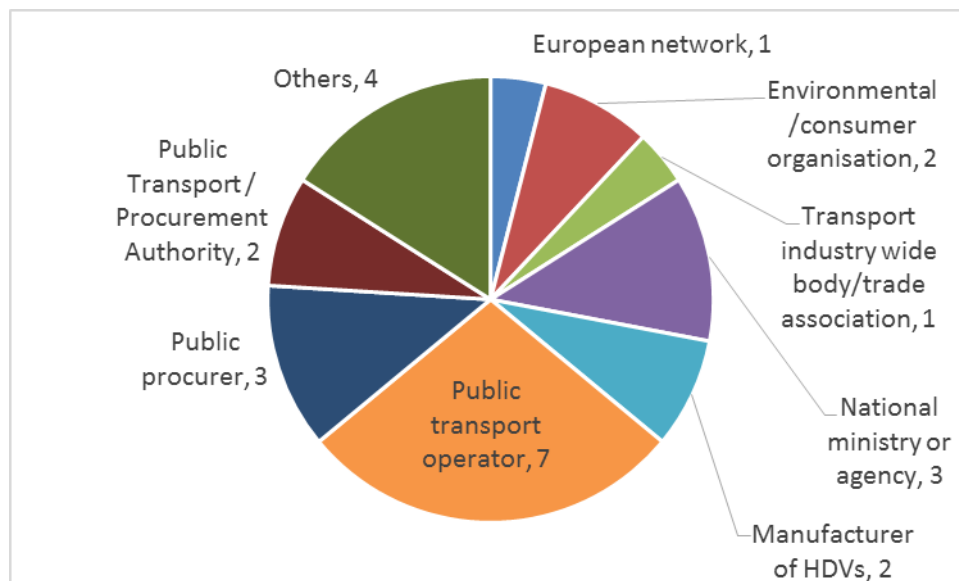


Figure 4: Breakdown of respondents by type



1.4.2.2 Views on the scope and definitions of the categories

Views on the scope and definitions of existing categories

Overall, stakeholders' views were positive on both the categories covered by the criteria and the definition of these. No respondent proposed to remove any of the five categories of transport vehicles and services currently covered by the guidelines. In all cases the majority of respondents with a view were in favour of keeping the requirements, with some supporting some kind of modification. There were more responses with respect to the purchase of buses and bus services, reflecting the number of public transport operators who responded to the survey (see Figure 5). The vast majority of stakeholders that expressed an opinion also agreed with the way in which 'cars and LCVs' and 'buses' are defined in the criteria (see Figure 6).

Figure 5: Stakeholders' views on the scope of the criteria

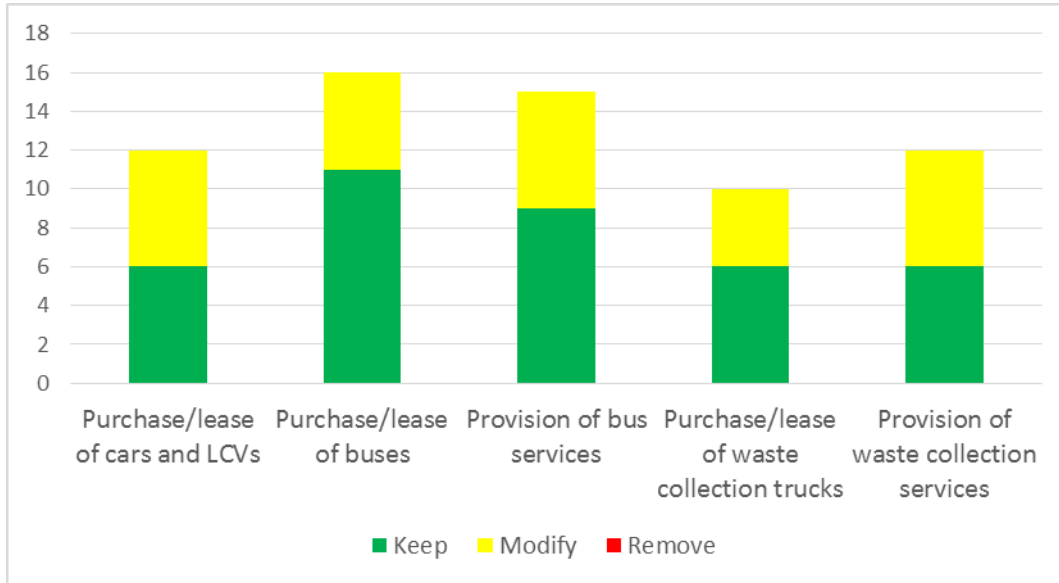
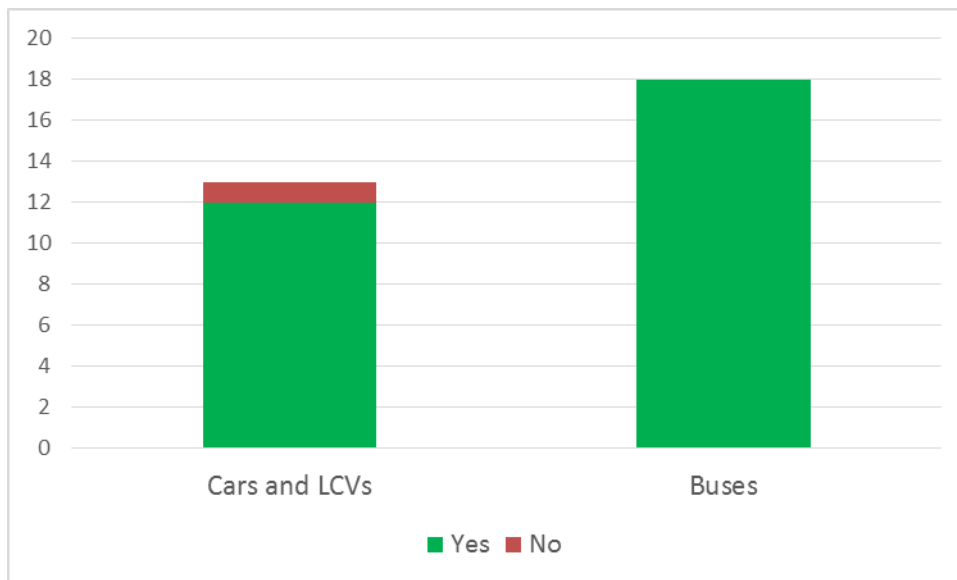


Figure 6: Stakeholders' views when they were asked whether they agreed with the way in which the specified categories were defined



A number of stakeholders considered that some of the definitions of some of the categories were too narrow and so did not reflect the way in which public authorities delivered some of the services, or that they restricted the procurement of more sustainable options. This issue was raised in relation to the definition of 'cars and LCVs' by two stakeholders, including the one that supplied the only negative response in Figure 6. It was argued that the current terminology limits the scope of procurement to cars and LCVs (i.e. M₁ and N₁ vehicles as defined by Directive 2007/46), and so excludes some categories of vehicle, such as 'L-category' vehicles (as defined by Regulation 168/2103), some vehicles excluded from this Regulation⁴⁶ and bicycles, that potentially have lower environmental impact for both freight and passenger trips. The vehicles excluded from this Regulation, but which were proposed might be covered by the EU GPP criteria include electric bicycles, 'self-balancing vehicles' and vehicles not equipped

⁴⁶ Regulation (EU) No 168/2103 on the approval and market surveillance of two- or three-wheel vehicles and quadricycles

with at least one seating position. The inclusion of such vehicles, or the requirement to consider the use of such vehicles, would allow 'the smallest, lightest and least powerful vehicle' to be used to meet the respective mobility needs, which the Technical Background Report supporting the current EU GPP criteria noted should be the general guideline when procuring transport services or vehicles. This could entail modifying the name of the category to "passenger vehicles and light commercial vehicles". Two stakeholders also noted that it is not always trucks that perform waste collection services, as L-category vehicles could also be used, as could ferries; consequently, one stakeholder proposed that the name of the fourth category should be "waste collection vehicle".

One stakeholder also argued that the scope of the 'waste collection services' category was too narrow, as other local services, such as parks and public gardens' services, street cleaning, road/infrastructure works, could also be included. It was argued that expanding the scope in this way would increase the effects of the criteria and would allow public authorities to demonstrate their sustainability policies. It was proposed that the category be broadened and renamed "technical public service vehicles". A public transport operator noted that it followed the UITP's document for procuring buses and related services (UITP, 2009).

There were various suggestions relating to how the categories currently without an explicit definition might be defined, including a couple with references to relevant pieces of EU legislation (see Table 7). On the other hand, one stakeholder asked whether it was necessary to define these categories as the procurer knows what they want to procure without the need for a technical definition. Another respondent raised a general point in relation to all of the definitions. This suggested that, for each category, an explicit reference be made to the vehicle category with reference to Directive 2007/46 (as is done for the definition of 'cars and LCVs' and 'buses') and also to the CPV codes covered.

Table 7: Suggestions for definitions for categories currently without an explicit definition

Public transport (bus) services
<p>Services made with a vehicle, for which there is non-discriminatory access for users.</p> <p>A network including vehicles and routes managed with specific rules (time table, number of vehicles, bus stops, etc).</p> <p>A shared passenger road transport vehicle service which is available for use by the general public based on regular operation of vehicles along a route calling at agreed stops according to a published transport timetable.</p> <p>Definition set within Regulation 1370/2007⁴⁷, article 2(a).</p> <p>Services that are offered to the public with the purpose of allowing transit between different locations. Commuters are able to choose the kind of transport and the time of transportation as they wish.</p> <p>A service that allows citizens to move without its own vehicle across the whole country, region or city.</p> <p>Public transport tendered by public authorities, carried out by commercial companies.</p>
Waste collection trucks

⁴⁷ Regulation (EC) No. 1370/2007 on public passenger transport services by road and rail; the article referred to defines "public passenger transport" as "passenger transport services of general economic interest provided to the public on a non-discriminatory and continuous basis".

A road transport vehicle used for picking up waste and then taking it to landfills or other places where waste materials are managed and treated.

N₂ and N₃ vehicles for urban waste collection and transport⁴⁸.

A truck with a specially adapted superstructure for collection and transport of waste.

Waste collection services

An activity provided by local government authorities or by private companies, which includes picking up all kinds of waste from urban and suburban areas and then moving it to landfills or other places where waste materials are managed and treated.

Collection, transport, recovery and disposal of waste.

Other comments from respondents that called for the modification of the categories related to the definition of the criteria and so will be covered in the Task 3 report. There were also two comments relating to the need to change the approach contained within the CVD (see above).

Views on potentially extending the scope of the criteria

A majority of stakeholders that had a view were supportive of the expansion of the criteria to the 'provision of postal and courier services' (see Figure 7). Comments in favour of the inclusion of these services noted that criteria would be useful for local authorities and the introduction of new technologies, that these service providers have large fleets and so criteria could bring significant environmental improvements, that these services have high visibility amongst the public and that their inclusion would contribute further to enabling public procurement to lead the way towards a low carbon transport system. It was also noted that as the GPP criteria are a voluntary instrument, it would be good to include as many public fleets as possible within them in order to stimulate the production of greener vehicles. The importance of including L-category vehicles and bicycles within the scope of the definition of the category was also highlighted by two stakeholders. A set of definitions was proposed for a new category of 'provision of postal and courier services' (see Table 8), although none made reference to existing EU legislation.

Figure 7: Stakeholders' views on the expansion of the scope of the criteria to cover 'provision of postal and courier services'

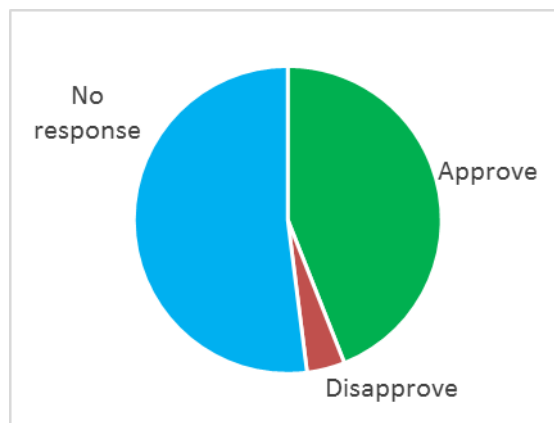


Table 8: Suggestions for a definition for a new category of 'provision of postal and courier services'

⁴⁸ N₂ and N₃ vehicles are defined in Directive 2007/46.

Provision of postal and courier services

An activity operates by companies on all scales, from within specific towns or cities, to regional, national and global, which covers the delivery of goods from one place to another using a road transport vehicle.

Postal services: letter and parcel services, financial services, other – non-postal services, sale of goods.

Courier services: services for fast delivery of documents and goods across the country.

Forty percent of the respondents suggested an additional category of vehicle or service that could be included in a revised set of EU GPP criteria (see Figure 8). The suggestions that were provided are listed in Table 9. Some of these reflect earlier comments, such as the inclusion of 'L-category' vehicles, which raises the question as to whether these vehicles could be included in an extended definition of passenger vehicles, or as a separate category in their own right.

Other suggestions, such as ferries and trams, are outside of the scope of the EU GPP criteria for transport, as they are not road transport. These vehicles also use different technologies and infrastructures to road transport and so would be more appropriately covered by separate product groups that might comprise the construction and maintenance of the infrastructures associated to those transport modes.

A number of respondents suggested vehicles or services, such as tractors, city distribution and intercity bus operations, that would not generally be considered to be core services provided or procured by public authorities and so which are unlikely to be relevant for many authorities. The proposal to include vehicles not contained within the road vehicle type approval Directive covers vehicles that are more or less by definition outside of the scope of the criteria, e.g. vehicles used in quarries, in airports and by the armed forces. Finally, the proposal to extend the scope to alternative powertrains and fuels is more appropriately addressed through the inclusion of criteria.

Private fleets contracted to do public works, which would potentially include some vehicles covered by the NRMM legislation, was also suggested. However, these activities fall under the tendering processes for public works and other services than transport, such as road construction and maintenance, gardening services, etc., which already have their own EU GPP criteria. Perhaps the most promising for inclusion in the criteria raised in this section relate to contracted public transport, and taxi services and vehicle sharing services.

Figure 8: Stakeholder views on whether there are other categories that could be included in the scope the expansion of the scope of the criteria

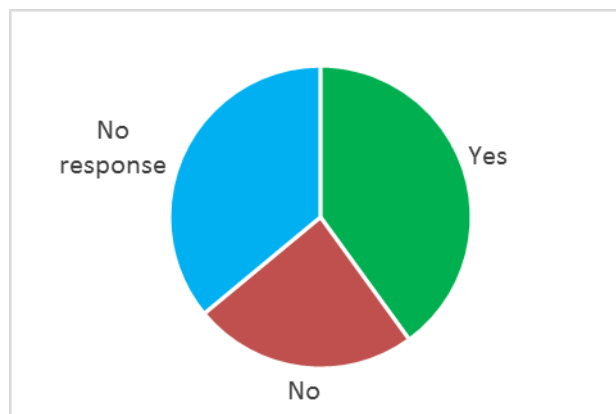


Table 9: Suggestions for additional categories (and proposed definitions where provided) that could be included in the revised GPP criteria

Additional categories (and proposed definitions) that could be included in the revised GPP criteria
Vehicles
<p>'L-category' vehicles (as defined by Regulation 168/2013 and some vehicles excluded from this Regulation (see footnote 46).</p> <p>Tractors ('T-category' vehicles) in the scope of Regulation (EU) No 167/2013⁴⁹.</p> <p>Non-road Mobile Machinery as defined in the extended scope of the Commission's proposal re NRMM (European Commission, 2014c).</p> <p>Vehicles currently falling out of scope of Directive 2007/46, including vehicles principally designed and constructed for use on construction sites or in quarries, port or airport facilities; vehicles designed and constructed for use by the armed services, civil defence, fire services and forces responsible for maintaining public order when travelling on public roads; and self-propelled vehicle designed and constructed to perform work and which is not suitable for carrying passengers or for goods.</p> <p>Ferry boats, boats.</p> <p>Urban Light Rail Vehicles (trams).</p>
Services
<p>Private fleets that are contracted to do public works (e.g. construction / road works).</p> <p>Taxi services.</p> <p>Vehicle sharing services.</p> <p>Public transport service by boats (ferry boats).</p> <p>City distribution.</p> <p>Intercity bus operation.</p> <p>Chartering i.e. delegation of the right to run a bus service to another bus transport company by tender.</p> <p>Contracted public transport (done by taxi companies) i.e. transport carried out for pupils/students who are not able travelling by themselves. Proposed definition: Transport services for people who are not able to travel independent. These transport services are tendered by local authorities and carried out by (commercial) taxi companies.</p>
Others
<p>Alternative powertrains and alternative fuels.</p>

1.4.3 Discussion and summary

The 24 stakeholders from whom responses were received were from a range of different Member States and stakeholder groups. Those procuring or operating the vehicles and services covered were well represented.

⁴⁹ Regulation (EU) No 167/2103 on the approval and market surveillance of agricultural and forestry vehicles

No stakeholder proposed that the scope of the criteria be reduced and only one explicitly disagreed with the way in which 'cars and LCVs' or 'buses' were defined in the respective categories. Some comments – and the one stakeholder with a negative view on the current definition of 'cars and LCVs' – argued that some of the categories were too narrow in scope if they were trying to encourage the use of the most environmentally beneficial vehicles in each case. Smaller vehicles than those covered by Directive 2007/46 could be used instead of cars, LCVs and even waste trucks. In this respect, reference was made to 'L-category' vehicles, which include powered bicycles, mopeds, motorcycles and smaller four-wheeled vehicles, as well as to (non-powered) bicycles. This reflects the suggestion in Dutch procurement guidance to consider alternatives to motorised vehicles and services (see Section 1.2.2.4).

A majority of those that expressed an opinion supported the extension of the criteria to include the 'provision of postal and courier services', while a couple of stakeholders highlighted the potential role of L-category vehicles and (non-powered) bicycles here as well. There were also suggestions that the service categories be extended to other services procured by public authorities. This might be achieved by extending and redefining the existing 'waste collection services' category' or by introducing new categories. The most promising vehicles/services suggested that might be included in the criteria included vehicles used contracted public transport and taxi services.

A few suggestions were made with respect to how categories currently not explicitly defined in the criteria might be defined, including some references to EU legislation. One respondent supported the explicit inclusion of vehicle definitions with reference to EU Directives and the inclusion of the CPV codes covered by all categories. The latter approach is already taken in Dutch procurement guidelines (see Section 1.2.2.4).

1.5 Proposals for the revision of the scope and definition of the transport categories

The proposals of the scope and definitions of the categories that might be covered in the revised EU GPP criteria for transport are based on the findings and the survey carried out to develop the Task 1 of the revision process.

1.5.1 Proposed categories to cover in the scope of the revised criteria

The first proposal is that the current five categories – ‘cars and LCVs’, ‘buses’, ‘bus services’, ‘waste collection trucks’ and ‘waste collection services’ – should be retained. There is no reason, on the basis of the information presented in this report, to conclude otherwise. No survey respondent called for the removal of any of these five categories. However, there might be scope for widening some of the categories or developing criteria for additional categories.

An interesting point raised by a number of stakeholders was that the focus of the criteria – with cars and LCVs the smallest vehicles covered – effectively means that the procurement of smaller vehicles and their use for services was not covered. The challenge of expanding the ‘cars and LCVs’ category to smaller vehicles is that much, if not all, of the relevant legislation covered in Section 2.1 refers to cars and LCVs, as defined in EU legislation, and not to the smaller ‘L-category’ vehicles (i.e. two-, three- and small four-wheeled vehicles) or to bicycles. Hence, including these smaller vehicles, including (non-powered) bicycles, in an expanded ‘light passenger vehicle’ category risks having limited impact. On the other hand, including a separate category for such vehicles would ensure that the most environmentally-friendly of such vehicles are procured, where it is possible to identify these. While important, this would not address the issue raised that the procurement of smaller vehicles be considered instead of larger vehicles. Consequently, rather than having a separate category for such vehicles or expanding the scope of the ‘cars and LCVs’ category, it is probably more appropriate to try to include a relevant criterion requiring the consideration of such vehicles in the set of GPP criteria for the purchase of ‘cars and LCVs’. Similarly, services such as ‘taxi services’ and ‘vehicle sharing services’, which were also proposed by stakeholders, might also be more usefully included as separate criteria as an alternative to the procurement or lease of a car or an LCV. Such an approach would reflect that taken in the Dutch GPP criteria where alternatives to the procurement of vehicles and services should be considered (see Section 1.2.2). Including such criteria would effectively widen the scope of the category beyond that implied by the current title. Consequently, the category currently referred to as the ‘Purchase or lease of cars and LCVs’ could be renamed:

- ‘Procurement of mobility for staff and elected representatives’. This could still include the purchase or lease of a car or an LCV, but would also cover the purchase or lease of L-category vehicles, the use of bicycles, or the use of taxi or shared vehicle services.

A similar argument could be made for the development of a criteria relating to the consideration of ‘L-category’ vehicles in the two waste collection categories. This could draw on the guidance to consider alternatives to procuring motorised vehicles and services in the Dutch GPP guidance. Additionally, the use of L-category vehicles could also be addressed within the postal and courier services categories, by means of criteria aimed at optimising the fuel consumption of the service or promoting the alternatives to motorised vehicles.

From the review of the national ecolabels and GPP criteria, a number of potential additional services were identified. Some of these, such as the painting, coating and washing of vehicles, might be better considered as additional criteria for the existing, and any additional, service categories. However, additional service categories that might

be considered for inclusion in the revised EU GPP criteria for transport comprise the following ones:

- 'Post and courier services', as this received support from stakeholders and could be developed by drawing on the criteria for transport services in the Netherlands and those for postal and home delivery services in Japan.
- 'Moving services', which are covered by the same criteria as postal and courier services in the Netherlands.

The fact that the Dutch 'transport services' GPP criteria cover a range of transport services, including postal, courier and moving services, but excluding waste collection and goods transport services, suggests that common criteria might be developed for these services. As noted in the Section 1.4.2.2, other vehicles, or services involving the use vehicles or the transport of goods, such as gardening services and road construction and maintenance works that were proposed by stakeholders or are referred to in some national approaches, are covered by EU GPP criteria for different product groups.

In summary, the scope proposal comprises the following categories:

- 1) 'Mobility for staff and elected representatives' (which would include the procurement or lease of cars and LCV)
- 2) 'Buses',
- 3) 'Bus services',
- 4) 'Waste collection trucks'
- 5) 'Waste collection services'
- 6) 'Post, courier and moving services'

1.5.2 Proposed definitions of the categories

As was concluded in Section 1.3, the most appropriate way of defining the categories covered by the revised EU GPP criteria for transport seem to be to use the definitions of vehicles from Directive 2007/46, in combination with the CPV categories where appropriate.

Thus the definition of the vehicles purchased or leased in the first two categories would remain as they currently are:

- 'Cars and LCVs': M₁ and N₁ vehicles, as defined by Directive 2007/46.
- 'Buses': M₂ and M₃ vehicles, as defined by Directive 2007/46.

However, as noted in Section 1.5.1, it is proposed that the first category be renamed as it would include criteria for the consideration of alternatives to vehicle procurement for authority staff and elected representatives. As part of these criteria, the following definitions might be applied:

- 'L-category' vehicles as defined by Regulation 168/2013; and
- 'Taxi services' as covered by CPV code 60120000-5.

The definition of the other categories would also make reference to these definitions, where relevant, but also to CPV categories, as appropriate, i.e.:

- 'Bus services' or 'Public transport services': The services should be defined as those covered by CPV codes 60112000-6 (Public road transport services), 60130000-8 (Special-purpose road passenger-transport services) and 60140000-1 (Non-scheduled passenger transport). This should cover the contracted public transport services proposed in Section 1.4.2.2. (contracted public transport done by taxi companies, i.e. transport carried out for pupils/students who are not able travelling by themselves). It is worth noting that these three CPV categories refer directly to the definition of public transport

services in the public procurement Directives (discussed in Section 1.3.1.1), with the explicit exception of rail public transport services.

- 'Waste collection trucks': Vehicles of category N₂ and N₃, as defined by Directive 2007/46, that are designed to provide services that fall into the CPV categories of 'Refuse collection services' (CPV code: 90511000-2), 'Refuse transport services' (90512000-9) and 'Refuse recycling services' (90514000-3).
- 'Waste collection services': Services that fall into the CPV categories of 'Refuse collection services' (90511000-2), 'Refuse transport services' (90512000-9) and 'Refuse recycling services' (90514000-3).

Similarly, the service categories proposed in the previous section could be defined as followed:

- Post, courier and moving services': Services that fall into the CPV categories for various postal, courier and moving services:
 - o Group 641 Post and courier services, with the exception of rail, airmail and mail transport over water
 - o 79613000-4 Employee relocation services
 - o 63100000-0 Cargo handling and storage services
 - o 98392000-7 Relocation services

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List of abbreviations and definitions

CLP – Classification, labelling and packaging
CNG – Compressed Natural Gas
CO₂ – Carbon dioxide
CPA – Classification of Products by Activity
CPC – Central Product Classification
CPV – Common Procurement Vocabulary
CVD – Clean Vehicle Directive
dB – decibels
DG – Directorate General
EEV – Enhanced environmentally friendly vehicle
EU – European Union
GHG – Greenhouse gas
GPP – Green Public Procurement
GSI – Gear Shift Indicator
GWP – Global Warming Potential
HDV – Heavy duty vehicle
ISIC – International Standard Industrial Classification
ITS – Intelligent Transport System
LCV – Light commercial vehicle
LDV – Light duty vehicle, i.e. a car or an LCV
M₁ – Cars
M₂ – Small buses
M₃ – Large buses
NACE – Nomenclature statistique des activités économiques dans la Communauté européenne
N₁ – LCVs
N₂ – Heavier commercial vehicles
N₃ – Heavy commercial vehicles
NMHC – non-methane hydrocarbons
NO_x – Oxides of nitrogen
NRMM – Non-road mobile machinery
PM – Particulate matter
PRODCOM – PRODUCTION COMMUNAUTAIRE
REACH – Registration, Evaluation, Authorisation and Restriction of Chemicals
RDE – Real driving emission
TCE – Transport chain elements
TPMS – Tyre Pressure Monitoring System

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ANNEX National GPP criteria

Table A-1.: Summary of national GPP criteria for light duty vehicles, i.e. cars and LCVs (noting similarities to and differences from respective EU GPP criteria)

National GPP	CO ₂ emissions	Pollutant emissions	Noise emissions	Other environmental criteria
Austria (definition: not specified; as categories follow EU GPP criteria, assume M ₁ and N ₁ vehicles)	<p>Technical specifications: The CO₂ emissions from fleets of new cars should not exceed an average of 130 gCO₂/km; for LCVs the equivalent figure is 175 gCO₂/km.</p>	None	<p>Award criteria: Additional points awarded for vehicles with noise emissions lower than those required by legislation.</p>	
Denmark (cars and LCVs)	<p>Cars that can carry up to 5 people should have a fuel efficiency label of 'A+'; larger cars (built for 6 or 7 people; or 8 to 9 people) must have a B- or E- label at the minimum⁵⁰; for LCVs, minimum label categories are set according to LCV's weight.</p> <p>Purchasers also advised to look out for TPMS, the provision of fuel consumption displays, GSI and a speed alarm.</p> <p>Additional</p>	Vehicles should comply with Euro 6 standards	<p>Additional recommendation: Vehicles should have noise levels 3 dB less than required.</p>	

⁵⁰ According to the label implemented in Denmark, as a result of Directive 1999/94; the Danish label goes beyond the Directive's requirements.

National GPP	CO ₂ emissions	Pollutant emissions	Noise emissions	Other environmental criteria
	<p>recommendations: Vehicle should have start-stop, be accompanied by information on eco-driving training and have CO₂ emissions 10% below the required label category.</p>			
Germany (cars, vehicles)	<p>Consideration should be given to requiring that the energy efficiency of vehicle fleets be improved by purchasing new cars with average emissions of no more than 110 gCO₂/km by 2018 and 95 gCO₂/km by 2020, the proportion of new cars purchased or rented with emissions of less than 50 gCO₂/km should be increased beyond 10%, the energy efficiency of the remaining vehicles should be improved continuously taking account of the possibilities of alternative drivetrains.</p>	<p>Priority should be given to the procurement of vehicles with the highest emissions standards.</p>	<p>Priority should be given to the procurement of vehicles with the lowest possible noise emissions.</p>	
Italy (purchase, lease and rental of cars and LCVs; purchase of second hand vehicles)	<p>Technical specifications: Vehicles should have CO₂ emissions not exceeding specified limits, i.e. 175 gCO₂/km for off-road vehicles, 150 g/km for class 1 LCVs, 130 g/km for other cars, 225 g/km for other LCVs.</p>	<p>Technical specifications: Vehicles should comply with the current Euro standard (i.e. Euro 5 in 2012, but Euro 6 when that came into</p>		<p>Optional award criteria: An estimation of the energy and environmental operational costs (in line with the methodology set out in the EU's CVD)</p> <p>Contract clauses (rental, where maintenance included): Lubricants should be low viscosity</p>

National GPP	CO ₂ emissions	Pollutant emissions	Noise emissions	Other environmental criteria
		<p>force); second hand vehicles should comply with the previous Euro standard</p> <p>Optional award criteria: Pollutant emissions 30% lower than those required (i.e. Euro 6)</p>		<p>corresponding to SAE grade number 0W30 or 5W30 or equivalent or regenerated lubricants should meet the requirements of the EU ecolabel (Decision 2011/381)</p>
<p>Netherlands (definition: CPV codes, so includes cars and LCVs, as well as fleet maintenance and management)</p>	<p>Technical specifications: Sets maximum CO₂ values per type of vehicle in line with EU GPP comprehensive criteria, requires vehicles to be equipped with GSI, TPMS and fuel consumption display, sets criteria for air conditioning gases and tyre rolling resistance in line with EU GPP comprehensive criteria</p> <p>Award criteria: Criteria are set for alternative fuels, lower CO₂ emissions and start-and-stop in line with EU GPP comprehensive criteria.</p> <p>Suggestions (for consideration): Encourage eco-driving, maximise electric kms when using plug-in</p>	<p>Technical specifications: Vehicle's must comply with Euro 6 standards (also includes a reference to Euro VI to cover the case where an LCV was type approved as an HDV)</p>	<p>Technical specifications: Sets criteria for tyre noise in line with EU GPP comprehensive criteria</p> <p>Note: Comprehensive award criteria re noise emissions levels NOT used.</p>	<p>Technical specifications: Sets criteria for lubricants in line with EU GPP comprehensive criteria (where cleaning is part of a service contract): Net fresh water consumption must not exceed 105 litres per vehicle; energy use no more than 25 MJ for whole process (15MJ for roll over for each wash)</p> <p>Award criteria: Criteria are set for vehicle materials in line with EU GPP comprehensive criteria (where cleaning is part of a service contract): Less fresh water and energy use than for technical specification</p> <p>Contract provision: Contractor to indicate where recycled</p>

National GPP	CO ₂ emissions	Pollutant emissions	Noise emissions	Other environmental criteria
	vehicles			<p>components can be used in the course of any repair for decision of contracting authority</p> <p>Suggestions (for consideration): Consider alternatives to the procurement of vehicles, select the right cars, limit acquisition of 4x4s</p>
Sweden (cars, maximum of 6 seats; purchase or leasing)	<p>Technical specification⁵¹ : (spearhead) Car must emit a maximum of 50 gCO₂/km, (advanced) manual vehicles must be equipped with a GSI</p> <p>Special contract terms: (advanced) Vehicle supplied with a TPMS, equipped with a support system for energy-efficient driving and intelligent speed adaptation</p>	<p>Award criteria: (advanced) Car complies with Euro 6 criteria</p>	<p>Technical specification: (advanced) Vehicle's noise levels must not exceed 72 dB regardless of fuel type</p>	<p>Award criteria: (basic) Apply cost calculation in accordance with CVD, apply life cycle costing</p> <p>Criteria relating to tyres include (covering both purchase and procurement of services): Environmental management system, servicing and follow-up, the use of various chemicals, lifespan, lifecycle cost and whether tyres are studded</p>
Sweden (minibuses, maximum of 9 seats; purchase or leasing)	<p>Technical specification: (advanced) Manual vehicles must be equipped with a GSI</p> <p>Award criteria: (spearhead) Vehicles must emit no more than 185 gCO₂/km (fossil fuels) or 310 gCO₂/km (biofuels),</p>	<p>Award criteria: (advanced) Vehicle complies with Euro 6 criteria</p>	<p>Technical specification: (advanced) Vehicle's noise levels must not exceed 72 dB regardless of fuel type</p>	<p>Technical specification: (basic) Fuel must comply with specified environmental class of fuel</p> <p>Special contract terms relating to fuel (fossil and renewable): Compliance with conservation laws and provisions (in country of origin) for land and water,</p>

⁵¹ Sweden has 'basic', 'advanced' and 'spearhead' standards

National GPP	CO ₂ emissions	Pollutant emissions	Noise emissions	Other environmental criteria
	Special contract terms: (advanced) Vehicle supplied with a TPMS, equipped with a support system for energy-efficient driving and intelligent speed adaptation			prohibition of fuel from more carbon-intensive feedstocks, raw materials should be at least 97% traceable, commitment to continually reduce associated GHG emissions; demands re fuel properties to protect sensitive environments
Sweden (light duty trucks; purchase or leasing)	Technical specification⁵² : (spearhead) Vehicle must emit no more than 175 gCO ₂ /km or run on alternative fuels, (advanced) manual vehicles must be equipped with a GSI Special contract terms: (advanced) Vehicle supplied with a TPMS, equipped with a support system for energy-efficient driving and intelligent speed adaptation	Award criteria: (advanced) Vehicle complies with Euro 6 criteria	Technical specification: (advanced) Vehicle's noise levels must not exceed 72 dB regardless of fuel type	
UK (car and LCV)	Minimum mandatory: Fleet average CO ₂ emissions for new cars should not exceed 130 gCO ₂ /km; the equivalent figure for LCVs is 175 gCO ₂ /km. Additional 'best practice' criteria : Fleet average CO ₂ emissions lower than the	Best practice: Vehicles comply with Euro 5 standard	Minimum award criteria: Noise emissions lower than required by national law Best practice award criteria: Vehicle equipped with tyres with noise emissions below those required by	Minimum award criteria: Use of recycled content, inclusion of bio-content/materials, design to maximise opportunities to recycle or recover parts at the end of the vehicle's life, design to enhance reparability and availability of more frequently used spares Best practice contract

⁵² Sweden has 'basic', 'advanced' and 'spearhead' standards

National GPP	CO ₂ emissions	Pollutant emissions	Noise emissions	Other environmental criteria
	<p>minimum required</p> <p>Minimum award criteria: Capability to use fuel from renewable resources</p> <p>Best practice award criteria: Vehicle capable of using renewable energy, equipped with GSI and TPMS, have air conditioning systems with a GWP of less than 150, commitment to use low rolling resistance tyres</p>		national law	<p>performance criteria: Contractor must selectively collect used lubricants and tyres and have a contract with a relevant waste management organisation.</p> <p>Best practice award criteria: Low viscosity lubricants (and minimum requirements re regenerated oil base), commitment to use tyres that do not contain oils subject to labelling in accordance with Directive 67/548 in tread rubber</p>
Norway (vehicles)	Vehicles should have low emissions of GHGs, when purchasing or leasing cars guideline maximum limit should be 120 to 140 gCO ₂ /km (which could be tightened later), being investigated whether all government vehicles could be CO ₂ -free or CO ₂ -neutral by 2020, tyres should be "easy roll"	Vehicles should have low emissions of NO _x and PM, diesel vehicles must have particulate traps fitted	Tyres should be low noise	Tyres should be stud-free
Japan (cars and LCVs, defined by weight)	Evaluation criteria: Categories of vehicles with less environmental impact are defined, including those using electricity, natural gas, fuel cells and hydrogen, along with hybrids and plug-in hybrids.	Evaluation criteria: For cars and LCVs using petrol and LPG, emissions limit values are set for various air		Factors for consideration: For cars and LCVs: The amount of lead used is reduced as much as possible (excluding that used in the battery), vehicle is designed for long-term use and

National GPP	CO ₂ emissions	Pollutant emissions	Noise emissions	Other environmental criteria
	<p>Fuel efficiency standards are set in terms of minimum km/litre according to a vehicle's weight for cars and LCVs. Tyres used for cars must have rolling resistance of 9 or less, as measured on a specified testing methodology.</p> <p>Factors for consideration: GWP of air conditioning gases less than 150, is designed with stop-start, has and eco-drive support installed.</p>	pollutants.		<p>designed to facilitate re-use (particularly of rare metals), and vehicle contains as much recycled material as possible.</p> <p>For tyres: Lifetime of tyre, its noise reduction, its packaging and storage and a collection for reuse and recycling of the packaging.</p>
New Zealand	Tenderers required to submit fuel economy information, fuel economy should be a criterion in tender evaluations, suppliers invited to include options for the use of renewable fuels	Tenderers required to state emission standards for the vehicle(s) proposed, vehicles purchased, leased or hired must comply with at least Euro 4 (or equivalent)		For LDVs longer life and less polluting lubricating and hydraulic oils should be specified, suppliers of maintenance services should comply with standards for tyre and used oil disposal, requirements re ecolabels should be included (when these are ratified), specifications re recycling and disposal
UNEP (vehicles)	<p>Requirement definition: Bidders should provide information on fuel efficiency (expressed in km/litre or litres/100km)</p> <p>Award/evaluation criteria: Additional points awarded for</p>	<p>Requirement definition: Bidders should state the emission control technology pre-fitted and the national emission standards that the vehicle</p>		<p>Requirement definition: Total weight of recycled material should be provided as a percentage of total weight, vehicles and their parts should be recyclable and reusable, minimum percentages (e.g. 25%, 75%) could be set for the proportion of the aluminium</p>

National GPP	CO ₂ emissions	Pollutant emissions	Noise emissions	Other environmental criteria
	<p>vehicles delivering specified fuel efficiency</p> <p>Contract management (systems contracts only): Contractor should report annually on CO₂ emissions and efforts to reduce these</p>	<p>meets, requirements relating to emission standards could be set</p> <p>Award/evaluation criteria: Additional points awarded for using certain emission control technologies or meeting specified emission standards</p>		<p>and /or steel used that was recycled</p> <p>Sourcing: Bidder (manufacturer and companies in the supply chain) required to have a written corporate environmental policy</p> <p>Award/evaluation criteria: Points awarded according to percentage of recycled content, provision of end-of-life take back or used vehicle refurbishment programme</p>

Table A-2.: Summary of national GPP criteria for heavy duty vehicles, i.e. trucks and buses (noting similarities to and differences from respective EU GPP criteria)*

National GPP	CO ₂ emissions	Pollutant emissions	Noise emissions	Other environmental criteria
Austria (buses)	None	Technical specifications: Engines must comply with Euro V standard ⁵³ . Award criteria: Additional points will be awarded for vehicles that meet EEV or Euro VI standard.	Award criteria: Additional points awarded for vehicles with noise emissions lower than those required by legislation.	
Austria (waste collection vehicles)	None	Technical specifications: The vehicle must comply with Euro V standard ⁵⁴ . Award criteria: Additional points will be awarded for vehicles that meet EEV or Euro VI standard.	Award criteria: Additional points awarded for vehicles with noise emissions levels below 102 dB(A) in accordance with Directive 2000/14.	
Italy (bus purchase, lease or rental, explicitly M ₂ and M ₃)	Technical specifications: Vehicles must be fitted with a fuel consumption indicator (except for those using CNG)	Technical specifications: Vehicles should comply with Euro VI standards, second hand vehicles should comply with Euro V emission standards, the exhaust pipe of the vehicle should not be on the same side of the vehicle as the passenger	Award criteria: Score awarded should relate to extent to which the noise emissions are lower than those required	Award criteria: An estimation of the energy and environmental operational costs (in line with the methodology set out in the EU's CVD)

⁵³ The criteria refer to Directive 2005/55/EC in this respect, but this Directive was replaced and repealed by Regulation 595/2009 (see above).

⁵⁴ The criteria refer to Directive 2005/55/EC in this respect, but this Directive was replaced and repealed by Regulation 595/2009 (see above).

National GPP	CO ₂ emissions	Pollutant emissions	Noise emissions	Other environmental criteria
		door		
Italy (Heavy goods vehicle purchase, lease or rental, explicitly N ₂ and N ₃)	Technical specifications: Vehicles must be fitted with a fuel consumption indicator (except for those using CNG)	Technical specifications: Vehicles should comply with Euro VI standards, second hand vehicles should comply with Euro V emission standards	Award criteria: Score awarded should relate to extent to which the noise emissions are lower than those required	Award criteria: An estimation of the energy and environmental operational costs (in line with the methodology set out in the EU's CVD)
Netherlands (HDVs, and specified mobile equipment (ME) and maintenance services, with reference to CPV codes)	Technical specifications: ME: Protocol supplied to regarding energy efficient use Award criteria: HDVs: Inclusion of fuel saving options (fuel consumption indicator, GSI, TPMS, lightweight construction, aerodynamic features, cruise control, start-stop), designed for alternative fuels (reference to EU GPP	Technical specifications: HDVs: Vehicles must comply with Euro VI standard ME: Must be compliant with specified stage standards set by the NRMM Directive 2004/26 ⁵⁵	Award criteria (ME): Quiet mobile equipment (with reference to a national list)	Selection criteria (maintenance contracts only): Environmental management system in place (with reference to EMAS) Technical specifications: HDVS: Retreaded tyres and tread regrooving used in maintenance of M ₃ , N ₂ and N ₃ vehicles ME: Lubricants oils (requirements set with reference to EU GPP

⁵⁵ Directive 2005/13/EC is also mentioned here; this Directive relates to agricultural and forestry tractors

National GPP	CO ₂ emissions	Pollutant emissions	Noise emissions	Other environmental criteria
	criteria) ME: Inclusion of fuel saving options (backstop system, load sensing technology); designed for alternative drives or sustainable fuels			criteria) Contract provision: Contractor to indicate where recycled components can be used in the course of any repair for decision of contracting authority
Sweden (heavy duty trucks; purchase or leasing)	Award criteria: (advanced) Vehicle type-approved for biofuels, hybrid technologies or electricity. Special contract terms: (advanced) Vehicle supplied with a TPMS, equipped with a support system for energy-efficient driving and intelligent speed adaptation	Award criteria: (advanced) Vehicle complies with Euro VI criteria		Award criteria: (basic) Apply cost calculation in accordance with CVD Criteria relating to tyres include (covering both purchase and procurement of services): Environmental management system, servicing and follow-up, the use of various chemicals, lifespan, lifecycle cost and whether tyres are studded. Technical specification: (basic) Fuel must

National GPP	CO ₂ emissions	Pollutant emissions	Noise emissions	Other environmental criteria
				<p>comply with specified environmental class of fuel</p> <p>Special contract terms relating to fuel (fossil and renewable): Land and water use (in country of origin), prohibition of fuel from more carbon-intensive feedstocks, raw materials should be at least 97% traceable, commitment to continually reduce associated GHG emissions; demands re fuel properties to protect sensitive environments</p>
UK (buses)	<p>Additional 'best practice' criteria: Vehicle equipped with GSI, TPMS and an air conditioning system using fluorinated gas with a GWP of less than 2,500</p> <p>Minimum award</p>	<p>Mandatory criteria: Vehicle engines must be certified as meeting Euro V standards.</p> <p>Additional 'good practice' criteria: Vehicles' exhaust pipes should not be on the same side as the passenger door.</p> <p>Minimum award criteria: Vehicle engines must be</p>	<p>Minimum award criteria: Noise emissions lower than required by national law</p>	<p>Minimum award criteria: Use of recycled content, inclusion of bio-content/materials, design to maximise opportunities to recycle or recover parts at the end of the</p>

National GPP	CO ₂ emissions	Pollutant emissions	Noise emissions	Other environmental criteria
	criteria: Capability to use fuel from renewable resources	certified as meeting Euro VI standards.		vehicle's life, design to enhance reparability and availability of more frequently used spares
UK (waste collection trucks)	<p>Minimum award criteria: Capability to use fuel from renewable resources</p> <p>Best practice award criteria: Vehicle equipped with TPMS</p>	<p>Mandatory criteria: Vehicle engines must be certified as meeting Euro V standards.</p> <p>Minimum award criteria: Vehicle engines must be certified as meeting Euro VI standards.</p> <p>Best practice award criteria: Emissions from auxiliary units meet specified limits in NRMM Directive</p>	<p>Minimum award criteria: Average noise emissions lower than 102 dB(A), measured according to Directive 2000/14</p>	
Japan (different types of HDV, including buses)	<p>Evaluation criteria: Categories of vehicles with less environmental impact are defined, including those using electricity, natural gas, fuel cells and hydrogen, along with hybrids and plug-in hybrids. Fuel efficiency standards are set in terms of minimum km/litre according to a vehicle's type, means</p>			<p>Factors for consideration: The amount of lead used is reduced as much as possible (excluding that used in the battery), vehicle is designed for long-term use and designed to facilitate re-use (particularly of rare metals), vehicle contains as much recycled material as possible,</p>

National GPP	CO ₂ emissions	Pollutant emissions	Noise emissions	Other environmental criteria
	of transmission, structure and weight. Factors for consideration: GWP of air conditioning gases less than 150, is designed with stop-start, has and eco-drive support installed.			

Note: The table includes criteria for heavy duty vehicles where these were explicitly separate from criteria for light duty vehicles. Any criteria that were applicable to 'vehicles' generally are covered in Table A-1.

Table A-3.: Summary of national GPP criteria for transport services

National GPP	CO ₂ emissions	Pollutant emissions	Noise emissions	Other environmental criteria
Austria (bus services)	<p>Contract performance clause: Each year the contractor shall submit a report on the fuel used in delivering the services and the resulting CO₂ emissions.</p>	<p>Technical specifications: All vehicles used to provide the service must be equipped with engines that comply with Euro IV standard⁵⁶. If this standard has been achieved through retrofitting, this should be documented.</p> <p>Award criteria: Additional points will be awarded for the proportion of vehicles used to meet the service that meet stricter Euro standards.</p>	<p>Award criteria: Additional points awarded for vehicles with noise emissions lower than those required by legislation.</p>	<p>Contract performance clause: All vehicles purchased during the contract period and used to deliver the service must comply with the Euro V standard, be equipped with a gear shift indicator (vehicles without automatic transmission) and a tyre pressure monitoring system. The exhaust pipe must not be on the same side as the passenger entry door.</p>
Netherlands (transport services, as indicated by CPV codes; includes courier, postal)	<p>Award criteria: Use of alternative fuels (with reference to EU GPP criteria); 100% compensation of transport CO₂ (using</p>	<p>Technical specifications: Vehicle used in performance of contract, must comply with Euro 5 (for LDVs) or Euro V (for HDVs)</p>	<p>Suggestions (for consideration): Use low noise emissions tyres (with reference to EU GPP criteria)</p>	<p>Suggestions (for consideration): Consider alternatives to motorised transport, use environmentally</p>

⁵⁶ The criteria refer to Directive 2005/55/EC in this respect, but this Directive was replaced and repealed by Regulation 595/2009 (see above).

National GPP	CO ₂ emissions	Pollutant emissions	Noise emissions	Other environmental criteria
and moving services, but not waste services)	<p>credits generated in line with Clean Development Mechanism guidelines)</p> <p>Contract provision: Requirement to report annually on fuel used</p> <p>Suggestions (for consideration): Choose low CO₂ vehicles (for LDVs), use low rolling resistance tyres, use coolants with low GWP, (all with reference to EU GPP criteria), encourage efficient driving</p>	<p>Award criteria: Higher rating can be assigned the more vehicles used in performance of contract meet Euro 6 (for LDVs) or EEV or Euro VI (for HDVs) with a minimum proportion of 50%</p>		<p>friendly lubricants (with reference to EU GPP criteria), ask tenderers for environmental management system, use retreaded tyres and inspect these</p>
Sweden (goods transport services by heavy duty vehicles)	<p>Special contract terms: (basic) Rolling resistance of tyres acquired for assignment shall comply with specified energy efficiency labelling classes, a stated proportion of the fuel used must be</p>	<p>Special contract terms: (advanced) All vehicles shall comply with Euro III, a stated proportion must comply with Euro V (or retrofitted Euro IV) and all new vehicles acquired to be used should at least comply with Euro VI.</p>		<p>Qualification requirement: (basic) Appropriate environmental management systems in place</p> <p>Special contract terms: (basic) Limit placed on the</p>

National GPP	CO ₂ emissions	Pollutant emissions	Noise emissions	Other environmental criteria
	renewable CNG or electricity, procedures for checking tyre pressures shall have been established, report on climate impact, (advanced) temperature-controlled transport shall comply with industry guidelines and supplier shall establish relevant emission reduction goals during the contract			proportion of certain substances in tread rubber, (spearhead) Fuel must comply with specified environmental class of fuel
Sweden (goods transport services by light duty trucks, private cars and bicycles ⁵⁷)	Special contract terms: (basic) Rolling resistance of tyres acquired for assignment shall comply with specified energy efficiency labelling classes, a stated proportion of the fuel used must be renewable CNG or	Award criteria: (spearhead) All vehicles shall comply with Euro 6.		Qualification requirement: (basic) Appropriate environmental management systems in place Special contract terms: (basic) Stud-free tyres shall be used (with minor exceptions), (spearhead) Fuel

⁵⁷ The document explicitly mentions that it covers bicycles, but there are no specific criteria for bicycle goods services.

National GPP	CO ₂ emissions	Pollutant emissions	Noise emissions	Other environmental criteria
	<p>electricity, procedures for checking tyre pressures shall have been established, (advanced) temperature-controlled transport shall comply with industry guidelines and supplier shall establish relevant emission reduction goals during the contract, (spearhead) A stated proportion of vehicles must release no more than 120 gCO₂/km or being type approved to run on biofuels or electricity</p>			<p>must comply with specified environmental class of fuel</p>
Sweden (car washes)				<p>Technical specifications (if included in a contract): Certain substances must be biodegradable, substances must not be used if they are marked as an</p>

National GPP	CO ₂ emissions	Pollutant emissions	Noise emissions	Other environmental criteria
				environmental hazard, health risk or as being bioaccumulative (according to CLP Regulation), while limitations are placed on the use of other substances
UK (bus services)	<p>Minimum contract performance clauses: All new vehicles purchased after award of contract and to be used in carrying out the service must have a GSI and TPMS. Contractor must supply annual report on fuel used and associated CO₂ emissions.</p> <p>Best practice contract performance criteria: Commitment to use low rolling resistance tyres, all drivers must be trained on</p>	<p>Mandatory criteria: All vehicles used in carrying out the service must have engines meeting Euro IV standards. Where vehicles meet this standard as a result of technical after-treatment, the relevant documentation should be provided.</p> <p>Minimum award criteria: Proportion of vehicles to be used in carrying out the service complying with stricter Euro standards (Euro V or VI)</p> <p>Minimum contract performance clauses: All new vehicles purchased after award of contract and to be used in carrying out the service must comply with Euro VI standard, the vehicle's exhaust pipe must</p>	<p>Minimum award criteria: Noise emissions lower than required by national law</p>	<p>Minimum award criteria: Use of recycled content, inclusion of bio-content/materials, design to maximise opportunities to recycle or recover parts at the end of the vehicle's life, design to enhance reparability and availability of more frequently used spares.</p> <p>Best practice contract performance criteria: Use of low viscosity lubricant, with a minimum of 25% regenerated oil</p>

National GPP	CO ₂ emissions	Pollutant emissions	Noise emissions	Other environmental criteria
	<p>environmentally-conscious driving in a recognised institution</p> <p>Best practice award criteria: Capability to use fuel from renewable resources, proportion of vehicles with GSI, TPMS and air condition with gases with a GWP of less than 2,500</p>	<p>not be on the same side as the passing door</p>		<p>base in vehicle maintenance</p> <p>Best practice contract performance criteria: commitment to use tyres that do not contain oils subject to labelling in accordance with Directive 67/548 in tread rubber</p>
UK (waste collection services)	<p>Minimum award criteria: Capability to use fuel from renewable resources</p> <p>Minimum contract performance clauses: All new vehicles purchased after award of contract and to be used in carrying out the service must have a GSI and TPMS. Contractor must supply annual report on fuel used and associated CO₂</p>	<p>Mandatory criteria: All vehicles used in carrying out the service must have engines meeting Euro IV standards. Where vehicles meet this standard as a result of technical after-treatment, the relevant documentation should be provided.</p> <p>Minimum award criteria: Proportion of vehicles to be used in carrying out the service complying with stricter Euro standards (Euro V or VI)</p> <p>Minimum contract performance clauses: All new vehicles purchased after award</p>	<p>Minimum award criteria: Average noise emissions lower than 102 dB(A), measured according to Directive 2000/14</p>	<p>Minimum award criteria: Use of recycled content, inclusion of bio-content/materials, design to maximise opportunities to recycle or recover parts at the end of the vehicle's life, design to enhance reparability and availability of more frequently used spares.</p> <p>Best practice contract</p>

National GPP	CO ₂ emissions	Pollutant emissions	Noise emissions	Other environmental criteria
	<p>emissions, all drivers must be trained on environmentally-conscious driving in a recognised institution.</p> <p>Best practice contract performance criteria: Commitment to use low rolling resistance tyres</p> <p>Best practice award criteria: Proportion of vehicles with TPMS</p>	<p>of contract and to be used in carrying out the service must comply with Euro VI standard, the vehicle's exhaust pipe must not be on the same side as the passing door</p> <p>Best practice award criteria: Emissions from auxiliary units meet specified limits in NRMM Directive</p>		<p>performance criteria: Use of low viscosity lubricant, with a minimum of 25% regenerated oil base in vehicle maintenance</p>
<p>Japan (postal and other home delivery services, passenger transportation (cars))</p>	<p>Evaluation criteria: Energy use (and actions to reduce it) are reviewed periodically, eco-driving is promoted, and measures are in place to improve efficiency of service.</p> <p>Measures for consideration: Measures to manage demand for electricity, and promotion of fuel efficient vehicles.</p>	<p>Evaluation criteria: Inspection and maintenance to ensure vehicles perform as they should from an environmental perspective.</p>		<p>Evaluation criteria: Modal shift is in place, information on environmental criteria is published</p> <p>Measures for consideration: Improvements on carrying capacity and cooperation to reduce number of vehicles, recycling of packaging, energy use of related buildings.</p>

National GPP	CO ₂ emissions	Pollutant emissions	Noise emissions	Other environmental criteria
<p>UNEP (freight forwarding, only those relating to road transport mentioned here)</p>	<p>Requirement definition: There should be fuel efficient driver training for new and current drivers, fuel consumption monitoring of drivers, idling time monitoring, tyre pressure monitoring procedures and technologies, aerodynamic features installed on trucks and trailers</p>	<p>Requirement definition: Technological measures to reduce NO_x and PM should be implemented, the average age of the truck fleet should be less than seven years</p>		<p>Requirement definition: Bidder has to demonstrate existence of a publicly-available written corporate environmental policy, perform monitoring of GHG and air pollutant emissions to international standards, describe measures to improve environmental performance and reduce fuel consumption</p> <p>Sourcing: Bidder should be compliant with environmental legislation</p>

Sources:

- For Austria, documents downloaded from <http://www.nachhaltigebeschaffung.at/ausschreibungen-fahrzeuge>
- For Denmark: <http://www.gronneindkob.dk/indkoebsmaal/transport/>
- For France: <http://www.developpement-durable.gouv.fr/Transport-vehicules.html>

- For Germany: http://www.bundesregierung.de/Content/DE/_Anlagen/2015/03/2015-03-30-massnahmenprogramm-nachhaltigkeit.pdf;jsessionid=1E6247024EB74208CC949C39E1BB831D.s2t2?__blob=publicationFile&v=2
- For Italy: Official Gazette of the Italian Republic (2012), “Piano d’azione per la sostenibilità ambientale dei consumi nel settore della Pubblica Amministrazione ovvero Piano d’Azione Nazionale sul Green Public Procurement (PANGPP)”; http://www.minambiente.it/sites/default/files/archivio/allegati/GPP/gu_128_all.pdf
- For the Netherlands, 2016 documents supplied by PIANOo; documents will be downloadable from <https://www.pianoo.nl/about-pianoo/sustainable-public-procurement/environmental-criteria-for-sustainable-public-procurement>
- For Sweden: <http://www.upphandlingsmyndigheten.se/en/sustainable-public-procurement/sustainable-procurement-criteria/vehicles-and-transport/>
- For the UK: <https://www.gov.uk/government/collections/sustainable-procurement-the-government-buying-standards-gbs>
- For Norway: https://www.regjeringen.no/globalassets/upload/FAD/Vedlegg/Konkurransepolitikk/T-1467_eng.pdf
- For Japan: <http://www.env.go.jp/en/laws/policy/green/>
- For New Zealand: https://www.business.govt.nz/procurement/pdf-library/agencies/Category_reviews.pdf
- For UNEP: <http://www.unep.org/resourceefficiency/Home/Society/SustainableUN/ReducingtheUNsImpact/Procurement/Guidelines/tabid/101228/Default.aspx>

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