

# Revision of EU GPP criteria for Transport

1<sup>st</sup> Interactive webinar Category 1 purchase, lease or rental of cars, LCVs and L-category vehicles 6<sup>th</sup> June 2017 9.30 CET

#### **Joint Research Centre**

the European Commission's in-house science service



JRC Science Hub: *ec.europa.eu/jrc* 

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# Agenda

	AGENDA	SCHEDULE
	Start of the webinar	09:30
1.	Opening and welcome	09.30 - 09.45
	Tour-de-table checking audio connections	
	Short introduction	
2.	CO2 emissions	09.45 - 10.20
3.	Air pollutant emissions	10.20 - 11.00
4.	Technical options to reduce CO2 emissions	11.00 - 11.15
5.	EV Battery	11.15 - 11.30
6.	Common criteria for vehicle categories	11.30 - 11.45
7.	Criteria withdrawn	11.45 - 12.00
	Closure	12.00 - 12. 10



### *Joint Research Centre in the context of the European Commission:*





# **Activities in support of Product Policy**

JRC supports the development and implementation of **Sustainable Product Policies**, amongst them the EU Ecolabel Regulation, the <u>Green Public Procurement</u> <u>Communication</u>, the Ecodesign for Energy Related Products Directive and the Energy Labelling Directive.

The Product Bureau carries out the **analysis of a broad range of product groups and development of environmental criteria** with focus on techno-economic as well as environmental aspects.





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**EU Green Public Procurement Policy** 

# 20+ EU GPP Criteria



Copying and graphic paper



Cleaning products and services



Computer and Monitors



Office Buildings

Furniture



Transport



Electricity



Textiles



Food & Catering services



Gardening products and services



Commission

**EU Green Public Procurement Policy** 

# 20+ EU GPP Criteria







Water based heaters



Combined Heat & Power



Street lighting and traffic signals



Waste water infrastructures



Indoor lighting



Flushing Toilets & Urinals



**Imaging Equipment** 



Sanitary tapware



EEE Health care sector



Roads



Commission

**EU Green Public Procurement Policy** 

# **Criteria under development**

- Street lighting
- Food and Catering
- Cleaning Services
- Furniture
- Textiles
- Transport
- Paints and Varnishes
- Data Centres









# **Using the BATIS system Please use it to provide comments!**





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	CO2 emissions	Technical	Gear shift indicators (GSI)
CO2 emissions	Lower CO2 emissions	options to	Energy consumption displays
	ergy efficiency reduce GHG		Vehicle specific eco-driving
	Air polluting emissions	emissions	information
Air		Speed limiter	
polluting	Improved air polluting emissions performance	EV battery	Battery warranty
emissions	Zero tailpipe emissions		Extended battery warranty

	Tyre Pressure Monitoring Systems (TPMS)
Common criteria for vehicle	Low viscosity lubricants
categories	Vehicle tyres – rolling resistance and noise
	Vehicle noise





CO2 EMISSIONS

#### **TS1: Type-approval CO2 value (core)**

Type approval CO2 emissions of vehicles shall not exceed the following values:

<b>Small car</b> 2018 2019 2020 2021	85 CO2 g/km 81 77 74	<b>Large car</b> 2018 2019 2020 2021	106 CO2 g/km 101 96 92
<b>Mid-size car</b> 2018 2019 2020 2021	93 CO2 g/km 89 85 81		





CO2 EMISSIONS

TS1: Type-approval CO2 value (core)		
<b>Small LCV (N1 d</b> 2018 2019	c <b>lass I)</b> 94 CO2 g/km 92	
2020	90	
Mid-size LCV (N	11 class II)	
2018	127 CO2 g/km	
2019 2020	124 121	
Large LCV (N1 o	class III)	
Option 1		Option 2
2018	163 CO2 g/km	147 + 0.096*(M - 1766.35)
2019 2020	159 156	0.95*147 +0.096*(M - 1766.35) 0.90*147 +0.096*(M - 1766.35)



#### CO2 EMISSIONS

#### TS1: Type-approval CO2 value (compr.)

Type approval CO2 emissions of vehicles shall not exceed the following values:

#### Small car and van

2018	45 CO2 g/km
2019	40
2020	35
2021	30

#### L-category vehicles shall be battery electric.

#### **Verification:**

The tenderer shall provide the Certificate of Conformity of the vehicle..





### CO2 EMISSIONS

#### AC1. Lower CO2 emissions (core and compr.)

Points will be awarded to vehicles presenting lower type approval CO2 emissions than those required in TS1, in proportion to the reduction achieved.

#### **Verification:**

See above TS1

#### AC2 Energy efficiency (compr.)

*If the public authority is requiring battery electric vehicles:* Points will be awarded to those vehicles with higher energy efficiency expressed in kWh/100km NEDC test procedure)

#### **Verification:**

See above TS1





CO2 EMISSIONS

 Passenger car vehicle categories proposed for the GPP criteria and corresponding segments

Passenger car	Corresponding segments according to
types used in GPP	segmentation used by the European
criteria	Commission
Small	A: mini cars
	B: small cars
Mid-size	C: medium cars
Large	D: large cars
	E: executive cars
	F: luxury cars
	S: sport coupés
	M: multi purpose cars
	J: sport utility cars (including off-road vehicles) 16

European

CO2 EMISSIONS

### Rationale (1/3)

#### **TTW approach**

- Defining the GHG criteria in terms of WTW emissions would complicate the criteria → TTW option is preferred by public procurers:
  - ✓ much easier to implement in a call for tender
  - ✓ based on metrics used by all manufacturers and well known by the consumers.
- CO2 criteria for cars and LCVs based on the WTW emissions would not significantly change the incentive to the market for ICEVs.
- With WTW, the gap between ICEVs and BEVs would be smaller, but BEVs would still have significantly lower emission values.



#### CO2 EMISSIONS

#### Rationale (2/3)

#### Thresholds

- Compr. criteria: thresholds have been lowered compared to the first proposal → electric drive range is large enough also in real world conditions.
  - Tiers set from 2018 to 2021: from 45 g/km in 2018 to 30 g/km in 2021
- Core criteria vans: N1 Class III includes a wide range of vehicles of different sizes, purpose and weight, and this variety may be difficult to reflect by a single threshold. For discussion:
  - Option 1: the thresholds stick to the initial approach based on one single figure for all N1 Class III vehicles, but stricter thresholds for N1 vehicles
  - Option 2: the thresholds for N1 Class III vehicles are aligned with the CO2 target based on mass. For 2019 and 2020, the threshold is proposed to decrease 5% per year.

#### CO2 EMISSIONS

Rationale (3/3)

#### WLTP

- Currently, the type approval values are determined by the New European Driving Cycle (NEDC) test cycle.
- In the near future (between 2017 and 2019) the type approval will change to the Worldwide harmonised Light vehicle Test Procedure (WLTP).
- From 2019 onward, only the CO2 type approval measured with WLTP will be communicated to consumers.
- The thresholds proposed in the technical specification for 2019 and onwards, which are based on the current type approval in force (NEDC) will have to be transformed into WLTP values as soon as reliable information on the WLTP/NEDC ratios becomes available.





**GHG EMISSIONS** 

## **Discussion and consultation questions**

- 1) Which option would be the most appropriate for N1 class III vehicles?
- 2) Feedback from participants?





#### AIR POLLUTANT EMISSIONS

#### **TS2:** Air pollutant emissions

**Core:** From **September 2019** onwards, all new cars and LCVs shall comply with an RDE emission performance which is at most 0.5 times higher **(= conformity factor of 1.5**) than Euro 6 limit values for NOx and PN. From **January 2021** onwards, all new cars and LCVs shall comply with an RDE emission performance which is at most equal to the Euro 6 limit values for NOx

and PN (conformity factor of 1.0).

**Core and compr.:** In case of the purchase of vehicles to be used in areas with air quality issues: Vehicles shall have zero tailpipe emissions.

If there is no charging infrastructure available, or the expected use profile requires large ranges:

The vehicles may at the least be zero tailpipe emissions capable, meaning a car that can run a minimum range without any tailpipe emissions. The contracting authority will set the minimum zero tailpipe emissions range according to the expected use profiles in the call for tender (a proposed default range could be 40 km). From 2019 onwards, the range without emitting any tailpipe emissions will be the electric range over WLTP





AIR POLLUTING EMISSIONS

#### AC3: Improved air polluting emissions performance (core and compr.)

Points will be awarded proportionally to the air polluting emissions performance to vehicles that have an RDE performance better than Euro 6d (Conformity factor of 1.5 or lower related to the NOx / PN limit value).

Points will be awarded according to the following formula:

$$Points = \left(1 - \frac{NOx}{NOx_{max}}\right) \times PNOx_{max} + \left(1 - \frac{PN}{PN_{max}}\right) \times PPN_{max}$$

#### AC4: Zero tailpipe emissions capability (core and compr.)

Points will be awarded to those vehicles that can demonstrate a minimum zero tailpipe emission capability, meaning the range the car can run without any tailpipe emissions, in proportion to the capability of the vehicle. *The contracting authority will set the minimum zero tailpipe emissions range reference threshold according to the expected use profiles in the call for tender (a proposed default range could be 40 km).* 

#### **Verification:**

The tenderer shall provide the Certificate of Conformity of the vehicle.





AIR POLLUTING EMISSIONS

#### Rationale

- The criterion proposal brings forward the tier that new models will have to comply with by January 2020 to September 2019 → conformity factor of 1.5.
- By January 2021, a stricter tier is proposed, so the vehicle shall meet a RDE conformity factor of 1.0.
  - The initial proposal was 1.1 → latest experience on RDE testing shows that the error margin is narrowing over time so it is expected that the conformity factors will be able to attain 1.0 by January 2021.
- Particle number (PN): the criterion is based on conformity factors, which will be set also for PN by the third RDE package.
- Several European cities have problems with bad air quality that trigger traffic-calming measures. → TS requests to purchase zero tailpipe emission vehicles, if they are to be used in areas with poor air quality.
  - In case of low availability of charging infrastructures or the need of large ranges → zero tailpipe emission capable vehicles





**GHG E**MISSIONS

## **Discussion and consultation questions**

• Feedback from participants?





#### TECHNICAL OPTIONS TO REDUCE GHG EMISSIONS

#### TS4: Gear shift indicators (core)

Note: this criterion does not apply to automatic vehicles. The criterion is not relevant for electric and plug –in hybrid vehicles, so it is not part of the comprehensive criterion.

LCVs shall be equipped with a gear shift indicator, meaning a visible indicator recommending that the driver shift gear.

#### **TS6:** Energy consumption display (core and compr.)

The vehicles shall be equipped with a mechanism to display to the driver fuel consumption figures.

#### Verification:

The tenderer shall provide the technical sheet of the vehicle where this information is stated.





#### TECHNICAL OPTIONS TO REDUCE GHG EMISSIONS

#### **TS3:** Vehicle specific eco-driving information (core and compr)

Cars/LCVs shall be equipped with information/ instructions on eco driving. In the case of ICEV, the user manual of the vehicle shall include guidelines on early shifting, maintaining a steady speed at low RPM and anticipating traffic flows. In case of hybrid and electric vehicles, they shall include information on the use of the regenerative braking in order to save energy. For Plug-in Hybrid Electric Vehicles and Range Extender Electric Vehicles, they shall provide specific instructions to maximize the kilometres driven electrically.

#### AC5: Speed limiter (compr.)

Points will be awarded to those vehicles equipped with a speed limiting device, meaning an on-board device that automatically limit the speed of a vehicle to a certain maximum speed as set in the device.

**Verification**: The tenderer shall present the technical sheet of the vehicle where this information is stated





TECHNICAL OPTIONS TO REDUCE GHG EMISSIONS

### Rationale

- Measures that help drivers to improve their driving behaviour towards a more fuel-efficient driving style should be incentivised:
  - Energy consumption displays
  - > Gear shift indicators  $\rightarrow$  mandatory for cars, but not for vans
  - Vehicle specific eco-driving information
  - Speed limiters: not as common as other on-board devices, speed limiters will be introduced as a comprehensive AC.
- Criteria dropped:
  - > Traffic information and route optimisation
  - GWP refrigerants: refrigerants compliant with MAC Directive perform very low GWP, no need of additional drivers.
  - Start-stop: promoted through the criteria on type approval CO2.





TECHNICAL OPTIONS TO REDUCE GHG EMISSIONS

## **Discussion and consultation questions**

• Feedback from participants?





DURABILITY AND REUSE OF THE BATTERY

#### **TS6:** Minimum warranty (compr.)

*If the contracting authority is requiring battery electric vehicles:* The tenderer shall provide a minimum warranty of the battery of 90 months in case of lease of the battery, or 150 000 km in case of purchase of the battery, against capacity loss below 75% according to EN 62660.

#### AC6: Extended warranty (compr.)

Points will be awarded to those tenders offering an extension of the warranty of the minimum set by the TS.

#### Verification:

The tenderers shall present a declaration with the warranty terms.





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DURABILITY AND REUSE OF THE BATTERY

#### Rationale

- The LCA literature review shows that BEVs reduce their environmental impact when less battery replacement is required.
- Criterion on warranty of the battery is proposed in order to reward those manufacturers improving the lifetime of batteries.
- The capacity loss covered by the warranty has been set at 75% in line with the information received in the stakeholder consultation.





**GHG E**MISSIONS

## **Discussion and consultation questions**

• Feedback from participants?





#### COMMON CRITERIA FOR VEHICLE CATEGORIES

#### TS1. Tyre Pressure Monitoring Systems (TPMS) (Core and compr.)

LCVs and heavy duty vehicles shall be equipped with tyre pressure monitoring systems (TPMS) or with sensors that enable the monitoring at the operator site.

**Verification:** The tenderer shall provide the technical sheet of the vehicle where this information is stated.

#### TS2. Low viscosity lubricant oils (Compr.)

Unless the manufacturer recommends other type of lubricant, the vehicles shall use low viscosity engine lubricant oils (LVL). LVL are those corresponding to SAE grade number 0W30 or 5W30 or equivalent.

**Verification:** The tenderer shall provide the technical sheet of the vehicle where the proposed lubricants are recommended.





COMMON CRITERIA FOR VEHICLE CATEGORIES

#### **TS3.** Vehicle tyres – rolling resistance (core and compr.)

The vehicles shall be equipped with

- a) Tyres that comply with the highest fuel energy efficiency class for rolling resistance expressed in kg/tonne, as defined by Regulation (EC) No 1222/2009 of the European Parliament and of the Council of 25 November 2009 on the labelling of tyres with respect to fuel efficiency and other essential parameters. This requirement shall not prevent the public authority from purchasing tyres with the highest wet grip class where justified by safety. OR
- b) Retreaded tyres

**Verification:** The tenderer shall provide the label of the tyre according to Regulation (EC) No 1222/2009 for tyres under case a, or the Notice of approval according to Annex 1 of UNECE Regulation 109 for retreaded tyres (case b)





COMMON CRITERIA FOR VEHICLE CATEGORIES

#### TS4: Tyre noise (compr.)

The vehicles shall be equipped with

a) tyres with external rolling noise emission levels 3dB below the maximum established in Regulation (EC) No 661/2009 Annex II Part C. This is equivalent to the top category (of the three available) of the EU tyre label external rolling noise class.

OR

retreaded tyres

The external rolling noise emissions will be tested according to the Annex I of Regulation (EC) No 1222/2009.

**Verification:** The tenderer shall provide the label of the tyre according to Regulation (EC) No 1222/2009 for tyres under case a) or the Notice of approval according to Annex 1 of UNECE Regulation 109 for retreaded tyres (case b).





#### COMMON CRITERIA FOR VEHICLE CATEGORIES

#### AC1: Vehicle noise (compr.)

Points will be awarded to the vehicles with noise emissions compliant with the Phase 3 limits of Regulation (EU) No 540/2014. The noise emissions will be tested according to the Annex II of Regulation (EU) No 540/2014.

#### **Verification:**

The tenderer shall provide the Certificate of Conformity of the vehicle.





COMMON CRITERIA FOR VEHICLE CATEGORIES

#### Rationale

- Tyre pressure monitoring systems (TPMS) → no mandatory for vans and cost-effective → core and comprehensive.
- Low viscosity lubricants → the use of LVL is a cost effective option. However, the type of lubricant of the vehicle is seldom included in the technical sheets, and sometimes it is not a technical feature offered to the consumers → comprehensive
- <u>Vehicle tyres/rolling resistance</u> → cost-effective option covered by Energy Efficiency Directive → core and comprehensive.
- <u>Retreaded tyres</u> → use of retreaded tyres instead of new tyres brings environmental benefits.
- Noise emissions → environmental issue addressed only at comprehensive level.
- <u>Vehicle tyres/noise emissions</u> → 3 dB below the limit values according to Regulation 611/2009 → the tyres fall within the best performing class of labelling Regulation (EC) No 1222/2009.
- <u>Vehicle noise</u> → Phase 3 applicable for new vehicle type from 1 July 2024 and for first registration from 1 July 2026 → award criterion for early compliance.
CATEGORY 1 PURCHASE, LEASE OR RENTAL OF CARS, LCVS AND L-CATEGORY VEHICLES



COMMON CRITERIA FOR VEHICLE CATEGORIES

## **Discussion and consultation questions**

• Feedback from participants?



## CATEGORY 1 PURCHASE, LEASE OR RENTAL OF CARS, LCVS AND L-CATEGORY VEHICLES



CRITERIA WITHDRAWN

### Vehicle manufacturing

- The stakeholder consultation has confirmed the complexity that the criteria on the manufacturing process might raise, mainly related to barriers to verification by the public procurer.
- Recycled materials go through a complex supply chain which hinders the traceability and the verification on the final product.

#### Waste disposal

• The requirements on waste fractions and tyres and on wash bays are quite relevant, but they are already mandatory.

### **Reuse of the battery**

• Market for second hand batteries is being developed naturally, and therefore, rewarding suppliers for offering take-back systems is not necessary.



CATEGORY 1 PURCHASE, LEASE OR RENTAL OF CARS, LCVS AND L-CATEGORY VEHICLES



CRITERIA WITHDRAWN

## **Discussion and consultation questions**

• Feedback from participants?





6. CONCLUSIONS, NEXT STEPS AND CLOSURE

Next steps?

## **Following on from this webinar:**

- Meeting minutes and presentation will be circulated
- Deadline for written comments into the html file in BATIS:

31 July2017





## Thank you very much

## Stay in touch

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# Revision of EU GPP criteria for Transport

2<sup>nd</sup> Interactive webinar Category 2 mobility services and category 7 post, courier and moving services 8<sup>th</sup> June 2017 14.30 CET

## Joint Research Centre

the European Commission's in-house science service



JRC Science Hub: ec.europa.eu/jrc



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	Closure	16.45 – 17. 00





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Sanitary tapware



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# **Criteria under development**

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## Scope of the categories

#### **Category 2 mobility services**

This category covers the purchase of taxi services, car sharing services and combined mobility services, using the following vehicles:

- 'Cars': M1 vehicles, as defined by Directive 2007/46;
- `L-category' vehicles as defined by Regulation 168/2013.
- 'Cycles': Bicycles, cycle trailers, electrically power assisted cycles,
- 'Light electric vehicles and self-balancing vehicles' whose specific definitions are under development by CEN/TC 354 /WG 4.

### **Category 7 post, courier and moving services**

This category covers the procurement of post, courier and moving services, which comprise:

- Group 641 Post and courier services, with the exception of rail, airmail and mail transport over water
- 79613000-4 Employee relocation services
- 63100000-0 Cargo handling and storage services
- 98392000-7 Relocation services



## **C**RITERIA OVERVIEW

CO2 emissions	CO2 emissions
	Air pollutant emissions
Air polluting emissions	Improved air pollutant emissions performance
	Zero tailpipe emissions

Combined mobility services (only for Mobility services)

	Competences of the tenderer
Common criteria for service categories	Environmental management measures
	Maintenance of the fleet





CO2 EMISSIONS - MOBILITY SERVICES

### AC1. CO2 emissions (core and compr.) Note: the contracting authority will set in the call for tender what types of vehicles are required to provide the service. Points will be awarded to those tenders offering a service fleet whose average CO2 type approval comply with Vehicle type CO2 g/km (NEDC) Small (M1) 85 Mid-size (M1) 93 Large (M1) 106 Points will be awarded proportionally to the average CO2 type approval of the fleet.

**Verification**: the tenderer shall present, in a spreadsheet, the list of the vehicles of the service fleet, their CO2 emissions type approval (supported by the respective certificates of conformity) and the calculation of their average.





CO2 EMISSIONS - POST, COURIER AND MOVING SERVICES

AC1. CO2 emissions (only applicable to LCVs and L-category vehicles) (core and compr.)

*Note: the application of AC1 does not exclude tenders offering cyclelogistics as defined in AC2.* 

Points will be awarded to those tenders offering a service fleet that

- For LCVs: the average CO2 type approval shall comply with core TS1 of Category 1, tier corresponding to the year of the call for tender. Points will be awarded proportionally to the average CO2 type approval of the fleet.
- For L-category vehicles: all the L-category vehicles used in the service shall be electric.

**Verification:** the tenderer shall present, in a spreadsheet, the list of the vehicles of the service fleet, their CO2 emissions type approval (supported by the respective certificates of conformity) and their average calculation.





## CO2 EMISSIONS - POST, COURIER AND MOVING SERVICES

### **TS1.** Cyclelogistics (Compr.)

Note: this TS will apply to vehicles used in post and courier urban deliveries. (in cities where the topography and the urban infrastructure are suitable, and there are sufficient cyclelogistics operators).

The tenderer shall offer a service fleet that include cycles and cycle trailers, which may be electrically power assisted cycles. The cycles and cycle trailers will be aimed at addressing last mile issues, according to the emissions reduction plan set by the TS1 Environmental management practices within the common criteria for service categories.

### AC2. Cyclelogistics (core and compr.)

Note: this AC will apply to vehicles used in post and courier urban deliveries. (in cities where the topography and the urban infrastructure are suitable) Points will be awarded to tenders offering a service fleet that include cycles and cycle trailers, which may be electrically power assisted cycles. The cycles and cycle trailers will be aimed at addressing last mile issues, according to the emissions reduction plan set by the TS1 Environmental management practices.

**Verification:** The tenderer will present the specifications of the service fleet, and where applicable the partnership agreement with the urban consolidation centre.



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CO2 EMISSIONS

## Rationale

- Stakeholders agreed that the substitution of vehicle purchases by mobility services entailed an environmental benefit itself, and therefore it should be encouraged over the purchase or lease.
- The criteria proposal has been reformulated as an award criterion that gives points to those service fleets whose average CO2 type approval comply with the core TS1 for category 1.
- The criterion based on an average is more representative of the performance of the fleet as a whole, instead of setting percentages on the fleet compositions which would only ensure the performance of a share → same approach is proposed for Post, courier and moving services.
- Criteria on cyclelogistics is proposed to be part of the emission reduction plan in order to better integrate it within the company operation.





CO2 EMISSIONS

## **Discussion and consultation questions**

• Feedback from participants?





AIR POLLUTANT EMISSIONS

## **TS3:** Air pollutant emissions (Core)

All cars / LCV used in carrying out the service shall meet at least Euro 5. 40% of cars / LCV shall meet at least Euro 6. All L-category vehicles used in carrying out the service shall meet at least Euro 3. 40% L-category vehicles shall meet Euro 4.

ONLY POST, COURIER AND MOVING SERVICES: All HDV used in carrying out the service shall meet at least Euro V. 40% of HDV shall meet at least Euro VI. Where vehicles are not certified as meeting Euro V or higher, but technical aftertreatment has achieved the same standard, this should be documented in the tender.

**Verification**: the tenderer shall present the list of the vehicles of the service fleet and their certificates of conformity. For those vehicles having achieved above-mentioned standard following a technical upgrade the measures must be documented and included in the tender, and this must be verified by an independent third party.



AIR POLLUTANT EMISSIONS

### **TS3:** Air pollutant emissions (Compr.)

All cars / LCV used in carrying out the service shall meet meeting at least Euro 5. 60% of cars and LCV shall meet at least Euro 6. All L-category vehicles used in carrying out the service shall meet at least Euro 3. 60% L-category vehicles shall meet Euro 4.

ONLY POST, COURIER AND MOVING SERVICES:

All HDV used in carrying out the service shall meet at least Euro V. 60% of HDV shall meet at least Euro VI.

Where vehicles are not certified as meeting Euro V or higher, but technical aftertreatment has achieved the same standard, this should be documented in the tender.

10% of LCV shall comply with the Euro 6d-TEMP standard.



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AIR POLLUTANT EMISSIONS

## TS3: Air pollutant emissions (compr.)

2. In case of the services to be used in areas with air quality issues: Vehicles shall have zero tailpipe emissions. If there is no charging infrastructure available, or the expected use profile requires large ranges: The vehicles may at the least be zero tailpipe emissions capable, meaning a car that can run the minimum range of 40 km without emitting any tailpipe emissions.

ONLY FOR MOBILITY SERVICES Note: TS2.1 will not apply in those tenders that offer combined mobility services according to AC4





AIR POLLUTANT EMISSIONS

### AC2. Air pollutant emissions (core and compr.)

Points will be awarded to those tenders offering a higher percentage than the one set by the TS3 for the fleet to be used under the contract, in proportion to the excess over the TS3.

Verification: See above TS3

# AC3. Zero emission capability (core and compr. for post, courier and moving services, only comprehensive for moving services)

Points will be awarded to tenders offering a service fleet totally composed by zero emission capable vehicles, meaning with a minimum range of 40 km without emitting any tailpipe emissions.

Verification: See above TS3





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AIR POLLUTANT EMISSIONS

### Rationale

- To simplify the criteria set in mobility services → the requirements on Euro 6d-TEMP have been withdrawn.
- They are kept in post, courier and moving services, since there is no competition with other categories.
- Comprehensive level is more complex than the core for mobility services
  - > Zero tailpipe emission vehicles in urban areas with poor air quality.
  - Zero tailpipe emission capability as award criterion (not in core)
  - The business model of mobility services is considered a promising market driver to increase the uptake of electric vehicles.
  - ➤ Mobility services can also offer a further level of environmental benefit by means of combined mobility services → exemption of the obligation to provide zero tailpipe emission vehicles where there are air quality issues, which will help to encourage the offer of combined mobility services.





AIR POLLUTANT EMISSIONS

## **Discussion and consultation questions**

• Feedback from participants?





## COMBINED MOBILITY SERVICES

### AC4. Combined mobility services (core and compr.)

**Option 1:** Points will be awarded to those tenders that provide **ad hoc solutions to each mobility need** requested within the distance specified in the call for tender, taking into account the travel distance, the number of travellers, the purpose of the trip, the available infrastructures, and any other circumstance relevant to optimize the mobility solution.

**Option 2:** Points will be awarded to those tenders that provide **mobility packages** adapted to the different travel categories included in the call for tender.

## **Both options:**

- 1) The tenderer shall ensure the **prioritization of the non-motorised** vehicles and public transport modes in the planning of the mobility solutions.
- 2) The tenderer shall offer a **sufficient level of multi and intermodality** to ensure This will include:
  - a) In those cities where the topography and the urban infrastructure are suitable, cycles and cycle trailers, which may include electrically power assisted cycles
  - b) public transport,
  - c) ride-sharing, car sharing, taxi services,
  - d) L-category vehicles.





#### **AC4: Combined mobility services**

#### **Verification:**

**Option 1:** the tenderer shall present a description of the planning and decisionmaking process to optimise the ad hoc solutions to different travel scenarios. **Option 2:** the tenderer shall present a description of the mobility packages offered.

**Both options:** The tenderer will present the operations it has or will put in place to provide the services by itself or via different suppliers and partnerships with public transport operators and other fleet operators.





## CRITERION AC14 - COMBINED MOBILITY SERVICES

## Rationale

- The combined mobility services (CMS) offer a wide range of combined mobility options which might include public transport and bikes rental. This could be used as a way to promote the **modal shift** towards non-motorised and public means of transport.
- The mobility solutions should designed to reduce the ratio energy consumed per distance and travel, prioritising the non-motorised vehicles and public transport modes.
- The level of multi and intermodality is a crucial element to meet the travel demand in the most efficient way.





## COMBINED MOBILITY SERVICES

## **Discussion and consultation questions**

Feedback from participants?





#### COMPETENCE OF TENDERER AND STAFF TRAINING

#### SC1. Competences of the tenderer (core and compr.)

The tenderer shall have relevant experience in each of the following areas:

- identifying, evaluating and implementing the available technologies and measures to reduce the WTW GHG emissions and air pollutants emissions
- monitoring and reporting procedures of the GHG emissions

#### **Verification:**

Evidence in the form of information and references related to relevant contracts carried out in the previous 5 years which included the above elements.





#### COMPETENCE OF TENDERER AND STAFF TRAINING

### **CPC1.** Drivers training (core and compr.)

*Note: This contract performance clause will only apply if the service includes a driver and where drivers are not requested to have the Driver Certificate of Professional Competence (Driver CPC) according to Directive 2003/59/EC* 

All drivers involved in carrying out the service for the duration of the contract period shall be **trained** in a recognised institution on **environmentally-conscious driving** on a regular basis to increase fuel efficiency.

Adequate training, with a minimum duration of 16 hours, shall be provided to all new staff working under the contract within four weeks of starting employment and an **update** on the above points, with a minimum duration of **4 hours**, for all other staff at least once a year.

The service provider shall document and report yearly the amount (hours) and subject of training provided to each member of staff working on the contract to the contracting authority.

All drivers involved in carrying out the service for the duration of the contract period shall **receive regularly information on their fuel efficiency performance** (at least once per month).

The yearly staff training records shall be made available to the contracting authority for verification purposes. The contracting authority may set rules for penalties for non-compliance



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COMPETENCE OF TENDERER AND STAFF TRAINING

## Rationale

- Selection criterion is aimed at ensuring the competences of the tenderer to manage their fleet according to environmental performance.
- Staff training → contract performance clause, which requires the drivers to be trained eco-driving measures, and feedback to drivers to reduce fuel consumption.
- Update training → 4 hours, instead of 8 h (first proposal). This training duration results in a cost-effective measure, while 8 h could be too costly for some companies.
- For bus and waste collection services → a mandatory training for drivers set by Directive 2003/59/EC which covers eco-driving





COMPETENCE OF TENDERER AND STAFF TRAINING

## **Discussion and consultation questions**

Feedback from participants?




### **ENVIRONMENTAL MANAGEMENT MEASURES**

**TS1.** Environmental management measures (core and compr.)

Over the contract period, the tenderers shall:

- 1. **monitor and record** the GHG and air pollutant emissions of the service. The indicator used shall be emissions and energy consumption of the service both in total per year and per passenger/tonne/unit transported-kilometer or another unit that reflects the performance of the service.
- 2. implement an **emissions reduction plan** with measures aimed at reducing the GHG emissions and air pollutants emissions.
- 3. **evaluate** the deployment of the emission reduction plan, by tracking the evolution of indicators and the implementation of the measures of the plan in real practice.
- 4. in case of deviations from the plan or of increase of the indicator, implement the necessary actions to **correct those deviations**, and if possible prevent them in the future.





### ENVIRONMENTAL MANAGEMENT MEASURES

# TS1. Environmental management measures (Same for core and comprehensive)

### Verification:

The tenderer shall provide:

- 1. the procedure for monitoring and recording the indicator pointed out in section
- 2. the emissions reduction plan.
- 3. the evaluation procedure to ensure the implementation of the emissions reduction plan
- 4. the correction procedure to correct the deviations found in the evaluation, and if possible prevent them in the future.

Environmental management systems certified against ISO 14001 or EMAS will be deemed to comply, if they cover the environmental objective of reducing GHG and air pollutant emissions of the service fleet. The tenderer shall provide the environmental policy showing the commitment to achieve this objective, together with the certificate issued by the certification body

*Note: the contracting authority may award points to those tenders offering significant improvements in their environmental management measures.* 





#### **ENVIRONMENTAL MANAGEMENT MEASURES**

# **CPC2.** Environmental management measures (Same for core and comprehensive)

The service provider shall document and report, over the contract duration.

- the results of the monitoring of indicators and
- the results of the evaluation and the correction and prevention actions, where applicable,
- according to the written procedures provided for the verification of the TS1 Environmental management measures

These reports shall be made available to the contracting authority for verification purposes.

The contracting authority may set rules for penalties for non-compliance and **bonuses for exceeding the objectives** set by the emissions reduction plan.





ENVIRONMENTAL MANAGEMENT MEASURES

### Rationale

- Technical specification inspired on the plan-do-check-act (PDCA) principles which constitute the basis of the management systems:
  - Monitoring energy consumption, GHG and air pollutant emissions.
  - Emissions reduction plan that covers the service provided over contract period
  - Evaluation of the implementation of the plan and procedures
  - Correction of the deviations found
- Contract performance clause to ensure the implementation of the environmental management measures. Also to reward those contractors that achieve more ambitious targets, by means of bonuses → stakeholders suggested a more dynamic and positive approach for this criterion.





ENVIRONMENTAL MANAGEMENT MEASURES

### **Discussion and consultation questions**

Feedback from participants?





### MAINTENANCE OF THE FLEET

### CPC3. Low viscosity lubricant oils (compr.)

Unless the manufacturer of the vehicle recommends other type of lubricant, the contractor shall replace the lubricants of the vehicles providing the service with low viscosity engine lubricant oils (LVL). LVL are those corresponding to SAE grade number 0W30 or 5W30 or equivalent.

The contractor will keep records which shall be made available to the contracting authority. The contracting authority may set rules for penalties for noncompliance.

### **CPC4.** Vehicle tyres – rolling resistance (core and compr.)

The contractor shall replace the worn tyres of vehicles providing the service with a) new tyres that comply with the highest fuel energy efficiency class for rolling resistance expressed in kg/tonne, as defined by Regulation (EC) No 1222/2009 of the European Parliament and of the Council of 25 November 2009 on the labelling of types with respect to fuel efficiency and other essential parameters. This contract performance clause shall not prevent the use of tyres with the highest wet grip class where justified by safety. OR

b) retreaded tyres

The contractor will keep records which shall be made available to the contracting authority. The contracting authority may set rules for penalties for noncompliance 37

Centre



MAINTENANCE OF THE FLEET

### **CPC5.** Tyre noise (compr.)

The contractor shall replace the worn tyres of vehicles providing the service with a) new tyres with external rolling noise emission levels 3dB below the maximum established in Regulation (EC) No 661/2009 Annex II Part C. This is equivalent to the top category (of the three available) of the EU tyre label external rolling noise class.

The external rolling noise emissions will be tested according to the Annex I of Regulation (EC) No 1222/2009.

OR

b) retreaded tyres

The contractor will keep records which shall be made available to the contracting authority. The contracting authority may set rules for penalties for noncompliance





### MAINTENANCE OF THE FLEET

### AC1 Lubricant oils, hydraulic fluids and grease (compr.)

Points will be awarded to those tenders including the use of the following for the maintenance of the service vehicles:

Re-refined lubricant oils

- Hydraulic fluids and greases that have no Health or Environmental Hazard statement or R-phrase at the time of application (Lowest classification limit in Regulation (EC) No. 1272/2008 or Council Directive 99/45/EC). The cumulative mass percentage of substances present in the hydraulic fluids and greases that are both nonbiodegradable and bioaccumulative shall not be more than 0.1% (w/w).

**Verification:** The tenderer shall provide the technical sheets of lubricants and hydraulic fluids and greases. Hydraulic fluids and greases that are compliant with EU Ecolabel or equivalent type 1 ecolabel will be deemed to comply.





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MAINTENANCE OF THE FLEET

### Rationale

- Tyres and lubricants are replaced along the lifetime of the vehicle, and therefore the same requirements should apply in maintenance activities
  - contract performance clauses requiring the contractor to comply with the tyres and lubricants criteria over the service contract.
- The current criteria set also includes some requirements on lubricants related to other life cycle stages of the lubricant itself
  - partially based on the current EU Ecolabel of Lubricants and also includes re-refined lubricants
  - > it is proposed as award criterion within the maintenance activities.





MAINTENANCE OF THE FLEET

### **Discussion and consultation questions**

• Feedback from participants?





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CRITERIA WITHDRAWN

# **Technical measures to reduce GHG and noise emissions and battery related measures**

- Stakeholders pointed out that these criteria would add complexity to the mobility services procurement process.
- The substitution of vehicle purchases by mobility services entails an environmental benefit itself, and therefore it should be encouraged over the purchase or lease.
- Too many additional criteria would create a barrier for the development of these services.





CRITERIA WITHDRAWN

## **Discussion and consultation questions**

• Feedback from participants?





CONCLUSIONS, NEXT STEPS AND CLOSURE

Next steps?

## **Following on from this AHWG meeting:**

- Meeting minutes and presentation will be circulated
- Deadlines for written comments into the html file in BATIS:

31 July 2017





# Revision of EU GPP criteria for Transport

3<sup>rd</sup> Interactive webinar Category 3 and 5 purchase or lease of buses and waste collection vehicles 13<sup>th</sup> June 2017 10.30 CET

### Joint Research Centre

the European Commission's in-house science service



JRC Science Hub: *ec.europa.eu/jrc* 

Research



### *Joint Research Centre in the context of the European Commission:*





# **Activities in support of Product Policy**

JRC supports the development and implementation of **Sustainable Product Policies**, amongst them the EU Ecolabel Regulation, the <u>Green Public Procurement</u> <u>Communication</u>, the Ecodesign for Energy Related Products Directive and the Energy Labelling Directive.

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**EU Green Public Procurement Policy** 

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Copying and graphic paper



Cleaning products and services



Computer and Monitors



Office Buildings

Furniture



Transport



Electricity



Textiles



Food & Catering services



Gardening products and services



Commission

**EU Green Public Procurement Policy** 

# 20+ EU GPP Criteria







Water based heaters



Combined Heat & Power



Street lighting and traffic signals



Waste water infrastructures



Indoor lighting



Flushing Toilets & Urinals



**Imaging Equipment** 



Sanitary tapware



EEE Health care sector



Roads



Commission

**EU Green Public Procurement Policy** 

# **Criteria under development**

- Street lighting
- Food and Catering
- Cleaning Services
- Furniture
- Textiles
- Transport
- Paints and Varnishes
- Data Centres









# **Using the BATIS system Please use it to provide comments!**





# Agenda

	AGENDA	SCHEDULE
	Start of the webinar	10:30
1.	Opening and welcome	10.30 - 10.45
	Tour-de-table checking audio connections	
	Short introduction	
2.	GHG emissions	10.45 - 11.30
3.	Air pollutant emissions	11.30 - 12.00
4.	Exhaust pipe location and auxiliary units	12.00 – 12.20
5.	Common criteria for vehicle categories	12.20 - 12.40
6.	Criteria withdrawn	12.40 - 12.50
	Next steps - Wrap up of the webinar	12.50 – 13. 00



## PURCHASE OR LEASE OF BUSES AND PURCHASE OR LEASE OF WASTE COLLECTION VEHICLES

	Technological improvement options to reduce GHG emissions		
GHG emissions	Air conditioning gases		
	Improved air pollutant emissions		
Air polluting emissions	Zero tailpipe emissions		
Exhaust gas emissions	Exhaust pipe location and auxiliary units		

	Tyre Pressure Monitoring Systems (TPMS)	
Common criteria for vehicle	Low viscosity lubricants	
categories	Vehicle tyres – rolling resistance and noise	
	Vehicle noise	





GHG EMISSIONS - BUSES

### **TS1** Use of technological improvement options

**Core:** The vehicle shall be **equipped with at least one of the technologies** within the Table 4 for **city buses** and Table 5 for **coaches and inter-urban buses**.

**Compr:** The vehicles shall be **equipped with at least one of the technologies classified A or B** within the Table 4 for city buses and Table 5 for coaches and inter-urban buses.

#### **Verification:**

The tenderer shall present the technical sheet of the vehicle where these technologies are stated.





GHG EMISSIONS - BUSES

### AC1 Use of technological improvement options

*Note: This criterion is only applicable where there are technologies classified as B or A Table 4 and Table 5.* 

Points will be awarded to those vehicles equipped by one of the technologies classified

Core: A or B

**Comprehensive:** A

within the Table 4 for city buses and Table 7 for coaches.

#### **Verification:**

The tenderer shall present the technical sheet of the vehicle where these technologies are stated.





### GHG EMISSIONS - BUSES

TS1 Use of technological improvement options						
List of eligible techno city buses	logies for	List of eligible technologies for coaches				
Technology	Class	Technology	Class			
Smart / clutched	C	Smart / clutched compressor	С			
compressor	C	Smart alternator / improved	6			
Smart alternator /	C	alternator	C			
improved alternator	C	Fuel cell vehicle	С			
Stop/start battery	C	Active flow control	С			
systems	C	Boat tails/ extension nanels	C			
Fuel cell vehicle	С	Engine software	C			
Mild hybrid	В	- management optimization	С			
Flywheel hybrid	В					
Full Series hybrid	Α					
Full Parallel hybrid	Α					
Full electric and plug-in						
vehicle	A					



GHG EMISSIONS - BUSES

**TS1** Use of technological improvement options

*Note:* 

The contracting authorities **may qualify dedicated natural gas** vehicles as class C, B or A, if they have a **supply of renewable methane** meeting at least 10%, 15% or 25% of their demand, respectively.

Renewable methane means biomethane and synthetic methane produced with surplus of renewable electricity (power-to-gas).

The contracting authorities **may classify fuel cell electric vehicles as class B or A**, if they have a **supplier of hydrogen produced with renewable sources** generated on-site, meeting at least 15% or 25% of their demand, respectively.





### GHG EMISSIONS - WASTE COLLECTION VEHICLES

TS1 Technological options to reduce GHG emissions (Same for core and comprehensive)

The vehicle shall be equipped by one of the following technologies demonstrating WTW GHG emissions reduction

- Hybrid vehicles, both diesel and natural gas
- Vehicles equipped with energy accumulation/recovery systems
- Vehicles equipped with load-sensing hydraulic system
- Vehicles equipped with electric bin lifts
- Plug-in hybrid: Vehicle equipped with a battery pack which can be charged from the grid and provides the energy for the electrical drive of the body and lifter
- Full Electric vehicles
- Fuel Cell Electric vehicles.

*Note: The contracting authorities may include dedicated natural gas vehicles if they have a supply of renewable methane meeting at least 10% of their demand.* 

### Verification:

The tenderer shall present the technical sheet of the vehicle where these technical or fuel technology specifications are stated.





GHG EMISSIONS

### AC2. Air conditioning gases (compr.)

Points will be awarded to those vehicles equipped with an air conditioning system that use a refrigerant with a global warming potential (GWP), related to CO2 and a time horizon of 100 years, below 150.

#### **Verification:**

The tenderer shall provide the name, formula and GWP of the refrigerating gas used in the air conditioning system. If a mixture of gases is used (n number of gases), the GWP will be calculated as follows:  $GWP = \Sigma(Substance X1 \% x GWP(X1)) + (Substance X2 \% x GWP(X2)) + ...$ (Substance Xn % x GWP(Xn)) where % is the contribution by weight with a weight tolerance of +/- 1 %. Information on the GWP of gases can be found at: http://www.grida.no/publications/other/ipcc\_tar/?src=/climate/ipcc\_tar/wg1/248 .htm





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**GHG EMISSIONS** 

### Rationale (1/2) Buses

- Technology specific option → Different sources of information have been analysed to come up with the lists of technologies for city buses and coaches.
- Technologies in the lists → at least 5% GHG emissions reduction compared to a conventional diesel vehicle.
- Different levels of CO<sub>2</sub> reduction → the classification of technologies to formulate a combination of technical specification and award criterion
  - ✓ Class C: up to 10%
  - ✓ Class B: up to 20%
  - ✓ Class A: more than 20%
- Waste collection vehicles: not e Relief



GHG EMISSIONS

### Rationale (2/2)

### **Fuels**

- Pathways of the fuels supplied clearly influence the GHG reduction potential of certain technologies, and therefore their classification.
- Requirements on <u>fuels cannot be part of the call for tenders</u> for vehicles
- Based on literature review:
  - <u>Fuel cell electric buses</u> are included as class C. The contracting authority may classify them as B or A if there is a supply of hydrogen produced with renewable sources generated on-site.
  - Contracting authority may qualify dedicated <u>natural gas buses</u> → if supply of renewable methane meeting at least <u>10% of their demand</u>.
  - Additional 5% → offsetting a possible increase of GHG emissions due to efficiency losses





COMMON CRITERIA FOR VEHICLE CATEGORIES

### **Discussion and consultation questions**

- Do you agree with the technologies included in the lists, and their classification?
- Feedback from participants?





AIR POLLUTANT EMISSIONS

AC3. Improved air pollutant emissions performance (core and compr.)

Points will be awarded to vehicles that have an **emission performance better than Euro VI**, proportionally to the air pollutant emissions reduction.

#### Verification:

The tenderer shall provide the Certificate of Conformity of the vehicle. For those vehicles having achieved the abovementioned standard following a technical upgrade the measures must be documented and included in the tender, and this must be verified by an independent third party





AIR POLLUTANT EMISSIONS

### AC4. Zero tailpipe emission capability (core and compr.)

Points will be awarded to those vehicles that are **capable of running with zero tailpipe emissions** of air pollutants, i.e. <u>plug in hybrid electric vehicles (PHEV)</u>, <u>battery electric vehicles (BEV)</u>, and fuel cell electric vehicles (FCEV).

#### **Verification:**

The tenderer shall provide the Certificate of Conformity of the vehicle. For those vehicles where technical upgrade has achieved the abovementioned standard the measures must be documented and included in the tender, and this must be verified by an independent third party





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AIR POLLUTANT EMISSIONS

### Rationale

- Euro VI was effective in <u>cutting overall NOx emissions by over 98%</u> when compared <u>to Euro V</u> vehicles. Euro VI **dedicated natural gas** vehicles increase that reduction in NOx emissions to <u>99%</u>.
- Electric and hydrogen buses can reduce the emissions further, to <u>zero</u> tailpipe air pollutants emissions.
- Award criteria to promote those vehicles able to <u>emit below Euro VI</u> limits and <u>without emitting any air pollutant</u>, i.e. zero tailpipe emission capable.
- Given that there is not a harmonised test method to measure the zero tailpipe emissions capability of buses expressed in distance, the criterion is proposed to directly select the technologies





COMMON CRITERIA FOR VEHICLE CATEGORIES

### **Discussion and consultation questions**

Feedback from participants?




EXHAUST PIPE LOCATION - BUSES

#### **TS2.** Exhaust pipes (location) (core and compr.)

Vehicles' exhaust pipes shall be located on the opposite side as the passenger door, at the rear of the vehicle.

#### Verification:

The tenderer shall provide the technical sheet of the vehicle.





#### AUXILIARY UNITS – WASTE COLLECTION VEHICLES

#### **TS2.** Air pollutant emissions (core and compr.)

The vehicle's emissions from the separate engines for auxiliary units meet the exhaust emission limits below according to Regulation (EU) No 2016/1628, Stage V.

#### **Verification:**

The tenderer shall present either a type approval certificate, or a test report from an independent laboratory according to the Regulation (EU) No 2016/1628

#### AC2. Electrification of auxiliary engines (compr.)

Points will be awarded to those vehicles equipped with electric auxiliary units, in order to reduce noise and air pollutant emissions during stationary processes. **Verification:** 

The tenderer shall present the technical sheet of the vehicle where this information is stated.



#### AUXILIARY UNITS WASTE COLLECTION VEHICLES

#### Rationale

- The new NRMM (non-road mobile machinery) Regulation → in force since January 2017
- New models  $\rightarrow$  Stage V-certified by January 2018
- All new non-road engines → Stage V-certified by 1 January 2021
- Electrification of the stationary phases of operation could reduce the need to turn on the main engine significantly and thus reduce emissions.
- Exhaust pipe location → feedback from stakeholders to keep it





COMMON CRITERIA FOR VEHICLE CATEGORIES

## **Discussion and consultation questions**

Feedback from participants?





COMMON CRITERIA FOR VEHICLE CATEGORIES

#### TS1. Tyre Pressure Monitoring Systems (TPMS) (core and compr.)

LCVs and heavy duty vehicles shall be equipped with tyre pressure monitoring systems (TPMS) or with sensors that enable the monitoring at the operator site.

**Verification:** The tenderer shall provide the technical sheet of the vehicle where this information is stated.

#### **TS2.** Low viscosity lubricant oils (Compr.)

Unless the manufacturer recommends other type of lubricant, the vehicles shall use low viscosity engine lubricant oils (LVL). LVL are those corresponding to SAE grade number 0W30 or 5W30 or equivalent.

**Verification:** The tenderer shall provide the technical sheet of the vehicle where the proposed lubricants are recommended.





COMMON CRITERIA FOR VEHICLE CATEGORIES

#### **TS3.** Vehicle tyres – rolling resistance (core and compr.)

The vehicles shall be equipped with

- a) Tyres that comply with the highest fuel energy efficiency class for rolling resistance expressed in kg/tonne, as defined by Regulation (EC) No 1222/2009 of the European Parliament and of the Council of 25 November 2009 on the labelling of tyres with respect to fuel efficiency and other essential parameters. This requirement shall not prevent the public authority from purchasing tyres with the highest wet grip class where justified by safety. OR
- b) Retreaded tyres

**Verification:** The tenderer shall provide the label of the tyre according to Regulation (EC) No 1222/2009 for tyres under case a, or the Notice of approval according to Annex 1 of UNECE Regulation 109 for retreaded tyres (case b)





COMMON CRITERIA FOR VEHICLE CATEGORIES

#### TS10 (compr.): Tyre noise

The vehicles shall be equipped with

a) tyres with external rolling noise emission levels 3dB below the maximum established in Regulation (EC) No 661/2009 Annex II Part C. This is equivalent to the top category (of the three available) of the EU tyre label external rolling noise class.

OR

retreaded tyres

The external rolling noise emissions will be tested according to the Annex I of Regulation (EC) No 1222/2009.

**Verification:** The tenderer shall provide the label of the tyre according to Regulation (EC) No 1222/2009 for tyres under case a) or the Notice of approval according to Annex 1 of UNECE Regulation 109 for retreaded tyres (case b).





COMMON CRITERIA FOR VEHICLE CATEGORIES

#### AC8: Vehicle noise (compr.)

Points will be awarded to the vehicles with noise emissions compliant with the Phase 3 limits of Regulation (EU) No 540/2014. The noise emissions will be tested according to the Annex II of Regulation (EU) No 540/2014.

#### **Verification:**

The tenderer shall provide the Certificate of Conformity of the vehicle.





COMMON CRITERIA FOR VEHICLE CATEGORIES

#### Rationale

- Tyre pressure monitoring systems (TPMS) → no mandatory for HDV and costeffective → core and comprehensive.
- Low viscosity lubricants → the use of LVL is a cost effective option. However, the type of lubricant of the vehicle is seldom included in the technical sheets, and sometimes it is not a technical feature offered to the consumers → comprehensive
- <u>Vehicle tyres/rolling resistance</u> → cost-effective option covered by Energy Efficiency Directive → core and comprehensive.
- <u>Retreaded tyres</u> → use of retreaded tyres instead of new tyres brings environmental benefits.
- Noise emissions → environmental issue addressed only at comprehensive level.
- <u>Vehicle tyres/noise emissions</u> → 3 dB below the limit values according to Regulation 611/2009 → the tyres fall within the best performing class of labelling Regulation (EC) No 1222/2009.
- <u>Vehicle noise</u> → Phase 3 applicable for new vehicle type from 1 July 2024 and for first registration from 1 July 2026 → award criterion for early compliance.



COMMON CRITERIA FOR VEHICLE CATEGORIES

## **Discussion and consultation questions**

Feedback from participants?





CRITERIA WITHDRAWN

#### **Durability of the battery**

- Based on ZeEUS report on EU market of electric buses → the uptake of electric buses has increased in the last years, but the context is still transitional and the transport providers are on a learning curve.
- A minimum warranty criterion expressed in too rigid terms could jeopardise the development of new technologies and materials in a market not yet mature.
- The criterion proposal is therefore removed due to the lack of data and the counterproductive effects that a wrong market signal would entail.





COMMON CRITERIA FOR VEHICLE CATEGORIES

## **Discussion and consultation questions**

Feedback from participants?





CONCLUSIONS, NEXT STEPS AND CLOSURE

Next steps?

# **Following on from this AHWG meeting:**

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31 July 2017





# Revision of EU GPP criteria for Transport

4<sup>th</sup> Interactive webinar Category 4 and 6 bus and waste collection services 14 June 2017 9.30 CET

**Joint Research Centre** 

the European Commission's in-house science service



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Research



## *Joint Research Centre in the context of the European Commission:*





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**EU Green Public Procurement Policy** 

# 20+ EU GPP Criteria



Copying and graphic paper



Cleaning products and services



Computer and Monitors



Office Buildings

Furniture



Transport



Electricity



Textiles



Food & Catering services



Gardening products and services



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**EU Green Public Procurement Policy** 

# 20+ EU GPP Criteria







Water based heaters



Combined Heat & Power



Street lighting and traffic signals



Waste water infrastructures



Indoor lighting



Flushing Toilets & Urinals



**Imaging Equipment** 



Sanitary tapware



EEE Health care sector



Roads



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**EU Green Public Procurement Policy** 

# **Criteria under development**

- Street lighting
- Food and Catering
- Cleaning Services
- Furniture
- Textiles
- Transport
- Paints and Varnishes
- Data Centres









# Agenda

	AGENDA	SCHEDULE
	Start of the webinar	9:30
1.	Welcome and tour de table.	9.30 - 9.45
2.	Technological options to reduce GHG emissions	9.45 - 10.15
3.	Air pollutant emissions	10.15 - 10.45
4.	Noise emissions	10.45 - 11.00
5.	New vehicles	11.00 - 11.15
6.	Route optimisation	11.15 – 11.30
7.	Common criteria for service categories	11.30 - 11.45
8.	Criteria withdrawn	11.45 – 12.00
	Closure	12.00 - 12. 10





# CRITERIA OVERVIEW

	Technological options to reduce GHG emissions		
CO2 omissions	Vehicle tyres – rolling resistance		
	Tyre Pressure Monitoring Systems (TPMS)		
	Fuels		
Air polluting emissions	Air pollutant emissions		
	Auxiliary units (only for Waste collection services)		
Noise emissions			
New vehicles			
Route optimisation (only for Waste collection services)			
Common critoria for	Competences of the tenderer		
service categories	Environmental management measures		
5	Maintenance of the fleet		





#### **GHG E**MISSIONS

**TS1. Technological options to reduce GHG emissions** *Note: This criterion is not applicable to special-purpose and non-scheduled passenger transport services* 

#### For public transport services and waste collection services

**12% (core) / 25% (compr.)** of the fleet to be used under the contract shall be vehicles equipped with one the eligible technologies set by the core TS1 of category 3.

#### **Verification:**

Same as TS1 of category 3 together with the list and technical sheets of the whole fleet.





**GHG E**MISSIONS

#### AC1. Technological options to reduce GHG emissions (core and compr.)

**A)** For public transport services and waste collection services Points will be awarded to the fleet to be used under the contract with proportion of vehicles (%) larger than TS2, in proportion to the excess over the TS2. If the fleet is composed by technologies of different classes, triple points than class C will be granted to class A, and double points to class C.

**B)** For special-purpose and non-scheduled passenger transport services Points will be awarded to those tenders offering a service fleet totally composed by vehicles equipped with one the eligible technologies set by the TS1 of Category 3.

# Verification:

See above TS2





#### **GHG E**MISSIONS

#### TS2. Vehicle tyres – rolling resistance (core and compr.)

All the vehicles shall be equipped with tyres compliant with TS on vehicle tyres as defined in the section 11.1 of Common criteria for vehicle categories. **Verification:** 

Same as TS2 of category 3 together with the list and technical sheets of the whole fleet

#### TS3. Tyre Pressure Monitoring Systems (TPMS) (core and compr.)

All the vehicles shall be equipped with tyres compliant with TS on TPMS as defined in the section 11.1 of Common criteria for vehicle categories. **Verification:** 

Same as TS3 of category 3 together with the list and technical sheets of the whole fleet





#### **GHG E**MISSIONS

#### TS4. Fuels (core and compr.)

*Note: this criterion is applicable only if the contracting authority qualifies dedicated natural gas vehicles as A, B or C and the tenderer offers dedicated natural gas vehicles to comply with TS2* At least 25% for class A, 15% for class B or 10% for class C of the methane supply shall be renewable methane.

#### **Verification:**

The tenderer shall provide the contract(s) with supplier(s) and the description and technical specifications of the production and the dedicated fuel supply system.





Commission

**GHG** EMISSIONS

#### Rationale

- The stakeholders indicated that the criteria should better reflect the different types of services.
- Public transport services and waste collection services → provide a service to citizens within a network → based on **fleet compositions** since all the vehicles are to be providing the service contracted.
- Special-purpose road passenger-transport services and non-scheduled passenger transport → similar to mobility services, a small share of the fleet is not representative of the service performance.
  - For these services, an award criterion is proposed to promote those fleets equipped with the technologies covered by the TS1 of the category 3.





**GHG E**MISSIONS

### **Discussion and consultation questions**

• Feedback from stakeholders?





AIR POLLUTING EMISSIONS

#### **TS5.** Air pollutant emissions

All vehicles used in carrying out the service shall meet at least Euro V. 40% (core) / 60% (compr.) of vehicles shall meet Euro VI.

#### **Verification:**

The tenderer shall present the list of the vehicles of the service fleet and their certificates of conformity. For those vehicles having achieved above-mentioned standard following a technical upgrade the measures must be documented and included in the tender, and this must be verified by an independent third party.

#### AC2. Air pollutant emissions (core and compr.)

Points will be awarded to the fleet to be used under the contract with proportion of vehicles used in carrying out the service (%) larger than TS6, in proportion to the excess over the TS5, or if the vehicles have an emission performance better than Euro VI or are capable to run with zero tailpipe emissions, i.e. plug in hybrid electric vehicles (PHEV), battery electric vehicles (BEV), and fuel cell electric vehicles (FCEV).

#### AC4. Auxiliary units (core and compr.) Waste collection services

Points will be awarded based on the proportion of vehicles that comply with the TS2 of category 5.



Commission

#### AIR POLLUTANT EMISSIONS

#### Rationale

- Current fleet composition of heavy duty vehicles.
  - ✓ Euro VI heavy duty vehicles in the current fleets is 8%
  - $\checkmark~15\%$  complies with Euro V.
  - ✓ 11% with Euro IV
  - ✓ More than 60% of the heavy duty vehicles using diesel is still equipped with Euro III
- Based on these facts, a minimum percentage of 40% of EURO VI is proposed for core and 60% for comprehensive level.
- This will stimulate the acceleration of the replacement rate to increase the share of Euro VI buses.





AIR POLLUTANT EMISSIONS

### **Discussion and consultation questions**

• Feedback from stakeholders?





#### NOISE EMISSIONS

#### AC3. Noise emissions (compr.)

Points will be awarded to those tenders offering a service fleet totally composed by vehicles compliant with the AC on vehicle noise emissions set in the section 10.2 of the common criteria for vehicle categories.

#### Verification:

The tenderer shall present the list of the vehicles of the service fleet and their certificates of conformity.

#### Rationale

- → Particularly relevant for buses used in urban public transport and waste collection vehicles
- → An award criterion is proposed to promote the use of low noise vehicles by the service providers, at comprehensive level to keep the simplicity of the core criteria set.





NOISE EMISSIONS

### **Discussion and consultation questions**

• Feedback from stakeholders?





#### NEW VEHICLES

#### **CPC1.** New vehicles (Same for core and comprehensive)

If a vehicle of the service fleet is replaced, the new vehicle shall contribute to keeping or improving the service fleet features (composition and technologies) in terms of GHG emissions and with air pollutant emissions as it was offered in the tender.

The contractor will keep records which shall be made available to the contracting authority for verification purposes. The contracting authority may set rules for penalties for non-compliance.

#### Rationale

→ Maintaining the level of environmental performance of the fleet or even continuously improving this environmental performance over time





**NEW VEHICLES** 

### **Discussion and consultation questions**

• Feedback from stakeholders?





ROUTE OPTIMISATION - WASTE COLLECTION SERVICES

#### AC6. Route optimisation (compr.)

Note: this criterion only applies if the tenderer owns or lease the elements of the waste collection system where the devices of the route optimisation system are to be installed (control centre, waste collection vehicles, and in some cases, bins)

Points will be awarded to those tenders offering route optimization systems incorporating Computerised Vehicle Routing and Scheduling (CVRS) technology. The route optimization shall comply with the minimum collection frequency required by the type of waste (e.g. bio-waste).

**Verification:** the tenderer shall present a description of the system, including the way to collect the data to feed the model.




European

ROUTE OPTIMISATION - WASTE COLLECTION SERVICES

- There are commercially available software tools incorporating Computerised Vehicle Routing and Scheduling (CVRS) technology that could improve the modelling and optimisation of collection operations.
- Route optimization system → additional investment, but the energy savings could make it cost-effective.
- Some systems need to <u>go beyond the fleet</u> and the fleet operation, installing level sensors inside the bins → within scope?



ROUTE OPTIMISATION WASTE COLLECTION SERVICES

## **Discussion and consultation questions**

- 1) Are these systems usually part of the call for tenders of waste collection services, or are they purchased by the municipalities and operated by the contractors?
- 2) In the case they are part of the call for tenders, is the tenderer free to offer those systems, or does the municipality require them as technical specification?





#### COMPETENCE OF TENDERER AND STAFF TRAINING

### SC1. Competences of the tenderer (core and compr.)

The tenderer shall have relevant experience in each of the following areas:

- identifying, evaluating and implementing the available technologies and measures to reduce the WTW GHG emissions and air pollutants emissions
- monitoring and reporting procedures of the GHG emissions

#### **Verification:**

Evidence in the form of information and references related to relevant contracts carried out in the previous 5 years which included the above elements.





## COMPETENCE OF TENDERER AND STAFF TRAINING

## **CPC1.** Drivers training (core and compr.)

*Note: This contract performance clause will only apply if the service includes a driver and where drivers are not requested to have the Driver Certificate of Professional Competence (Driver CPC) according to Directive 2003/59/EC* 

All drivers involved in carrying out the service for the duration of the contract period shall be **trained** in a recognised institution on **environmentally-conscious driving** on a regular basis to increase fuel efficiency.

**Adequate training,** with **a minimum duration of 16 hours**, shall be provided to all new staff working under the contract within four weeks of starting employment and an **update** on the above points, with a minimum duration of **4 hours**, for all other staff at least once a year.

The service provider shall document and report yearly the amount (hours) and subject of training provided to each member of staff working on the contract to the contracting authority.

All drivers involved in carrying out the service for the duration of the contract period shall **receive regularly information on their fuel efficiency performance** (at least once per month).

The yearly staff training records shall be made available to the contracting authority for verification purposes. The contracting authority may set rules for penalties for non-compliance



Commission

COMPETENCE OF TENDERER AND STAFF TRAINING

- Selection criterion is aimed at ensuring the competences of the tenderer to manage their fleet according to environmental performance.
- Staff training → contract performance clause, which requires the drivers to be trained eco-driving measures, and feedback to drivers to reduce fuel consumption.
- Update training → 4 hours, instead of 8 h (first proposal). This training duration results in a cost-effective measure, while 8 h could be too costly for some companies.
- For bus and waste collection services → a mandatory training for drivers set by Directive 2003/59/EC which covers eco-driving



CATEGORY 2 MOBILITY SERVICES AND 7 POST, COURIER AND MOVING SERVICES



COMPETENCE OF TENDERER AND STAFF TRAINING

## **Discussion and consultation questions**

Feedback from participants?





## **ENVIRONMENTAL MANAGEMENT MEASURES**

**TS1.** Environmental management measures (core and compr.)

Over the contract period, the tenderers shall:

- 1. **monitor and record** the GHG and air pollutant emissions of the service. The indicator used shall be emissions and energy consumption of the service both in total per year and per passenger/tonne/unit transported-kilometer or another unit that reflects the performance of the service.
- 2. implement an **emissions reduction plan** with measures aimed at reducing the GHG emissions and air pollutants emissions.
- 3. **evaluate** the deployment of the emission reduction plan, by tracking the evolution of indicators and the implementation of the measures of the plan in real practice.
- 4. in case of deviations from the plan or of increase of the indicator, implement the necessary actions to **correct those deviations**, and if possible prevent them in the future.





## ENVIRONMENTAL MANAGEMENT MEASURES

# TS1. Environmental management measures (Same for core and comprehensive)

## Verification:

The tenderer shall provide:

- 1. the procedure for monitoring and recording the indicator pointed out in section
- 2. the emissions reduction plan.
- 3. the evaluation procedure to ensure the implementation of the emissions reduction plan
- 4. the correction procedure to correct the deviations found in the evaluation, and if possible prevent them in the future.

Environmental management systems certified against ISO 14001 or EMAS will be deemed to comply, if they cover the environmental objective of reducing GHG and air pollutant emissions of the service fleet. The tenderer shall provide the environmental policy showing the commitment to achieve this objective, together with the certificate issued by the certification body

*Note: the contracting authority may award points to those tenders offering significant improvements in their environmental management measures.* 





#### ENVIRONMENTAL MANAGEMENT MEASURES

## **CPC2.** Environmental management measures (Same for core and comprehensive)

The service provider shall document and report, over the contract duration.

- the results of the monitoring of indicators and
- the results of the evaluation and the correction and prevention actions, where applicable,
- according to the written procedures provided for the verification of the TS1 Environmental management measures

These reports shall be made available to the contracting authority for verification purposes.

The contracting authority may set rules for penalties for non-compliance and **bonuses for exceeding the objectives** set by the emissions reduction plan.





ENVIRONMENTAL MANAGEMENT MEASURES

- Technical specification inspired on the plan-do-check-act (PDCA) principles which constitute the basis of the management systems:
  - Monitoring energy consumption, GHG and air pollutant emissions.
  - Emissions reduction plan that covers the service provided over contract period
  - Evaluation of the implementation of the plan and procedures
  - Correction of the deviations found
- Contract performance clause to ensure the implementation of the environmental management measures. Also to reward those contractors that achieve more ambitious targets, by means of bonuses → stakeholders suggested a more dynamic and positive approach for this criterion.





ENVIRONMENTAL MANAGEMENT MEASURES

## **Discussion and consultation questions**

Feedback from participants?





## MAINTENANCE OF THE FLEET

## CPC3. Low viscosity lubricant oils (compr.)

Unless the manufacturer of the vehicle recommends other type of lubricant, the contractor shall replace the lubricants of the vehicles providing the service with low viscosity engine lubricant oils (LVL). LVL are those corresponding to SAE grade number 0W30 or 5W30 or equivalent.

The contractor will keep records which shall be made available to the contracting authority. The contracting authority may set rules for penalties for noncompliance.

## **CPC4.** Vehicle tyres – rolling resistance (core and compr.)

The contractor shall replace the worn tyres of vehicles providing the service with a) new tyres that comply with the highest fuel energy efficiency class for rolling resistance expressed in kg/tonne, as defined by Regulation (EC) No 1222/2009 of the European Parliament and of the Council of 25 November 2009 on the labelling of types with respect to fuel efficiency and other essential parameters. This contract performance clause shall not prevent the use of tyres with the highest wet grip class where justified by safety. OR

b) retreaded tyres

The contractor will keep records which shall be made available to the contracting authority. The contracting authority may set rules for penalties for noncompliance 35

Centre



MAINTENANCE OF THE FLEET

## CPC5. Tyre noise (compr.)

The contractor shall replace the worn tyres of vehicles providing the service with a) new tyres with external rolling noise emission levels 3dB below the maximum established in Regulation (EC) No 661/2009 Annex II Part C. This is equivalent to the top category (of the three available) of the EU tyre label external rolling noise class.

The external rolling noise emissions will be tested according to the Annex I of Regulation (EC) No 1222/2009.

OR

b) retreaded tyres

The contractor will keep records which shall be made available to the contracting authority. The contracting authority may set rules for penalties for noncompliance





## MAINTENANCE OF THE FLEET

## AC1 Lubricant oils, hydraulic fluids and grease (compr.)

Points will be awarded to those tenders including the use of the following for the maintenance of the service vehicles:

Re-refined lubricant oils

- Hydraulic fluids and greases that have no Health or Environmental Hazard statement or R-phrase at the time of application (Lowest classification limit in Regulation (EC) No. 1272/2008 or Council Directive 99/45/EC). The cumulative mass percentage of substances present in the hydraulic fluids and greases that are both nonbiodegradable and bioaccumulative shall not be more than 0.1% (w/w).

**Verification:** The tenderer shall provide the technical sheets of lubricants and hydraulic fluids and greases. Hydraulic fluids and greases that are compliant with EU Ecolabel or equivalent type 1 ecolabel will be deemed to comply.





Commission

MAINTENANCE OF THE FLEET

- Tyres and lubricants are replaced along the lifetime of the vehicle, and therefore the same requirements should apply in maintenance activities
  - contract performance clauses requiring the contractor to comply with the tyres and lubricants criteria over the service contract.
- The current criteria set also includes some requirements on lubricants related to other life cycle stages of the lubricant itself
  - partially based on the current EU Ecolabel of Lubricants and also includes re-refined lubricants
  - > it is proposed as award criterion within the maintenance activities.





MAINTENANCE OF THE FLEET

## **Discussion and consultation questions**

• Feedback from participants?





CRITERIA WITHDRAWN

### Integrated public transport systems – bus services

The stakeholders indicated that these integration platforms are not part of call for tenders but they are within the mobility planning and other urban and transport strategies developed by local and national authorities. For this reason, this proposal is withdrawn.

#### **Durability of the battery**

The uptake of electric buses has increased in the last years, but the context is still transitional and the transport providers are on a learning curve. For this reason, it is proposed that no criteria on battery warranty are within the service categories.





CONCLUSIONS, NEXT STEPS AND CLOSURE

Next steps?

## **Following on from this AHWG meeting:**

- Meeting minutes and presentation will be circulated
- Deadlines for written comments into the html file in BATIS:

31 July 2017

