

LIFE GreenYourRoute: A European innovative logistic platform for last mile delivery of goods in urban environment

Deliverable A1.2: *Memorandum of Understanding of Green Procurement*

Partner responsible for this report: UTH

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Disclaimer:

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1 Introduction

This Memorandum of Understanding (Agreement) is entered into between the undersigned parties as an expression of their good faith agreement to accomplish the outcomes pursuant to the roles and responsibilities set forth in this Agreement.

Nothing contained in this Memorandum of Understanding is intended to create a legally binding obligation or rights on any signatory hereto or any third party not a signatory to this agreement.

This memorandum represents a voluntary, good faith and transparent partnership between the University of Thessaly, Coordinating Beneficiary of LIFE GreenYourRoute Project and Associated Beneficiary, Associated Beneficiary of the project to increase the value recovered from the implementation of LIFE GreenYourRoute project. While the focus of the project is to decrease emissions produced from logistics operations, the signatories recognize that long-term efforts must address all the social, environmental and economic facets of what is becoming commonly known as sustainable development.

2 Provisions to reduce the project's footprint

The core activity of the LIFE GreenYourRoute project is the development of a robust and reliable web-based platform and smartphone app for the minimization of emissions promoting environmental friendly freight transport in urban areas. The project will not only play an important role in the global minimization of GHG emission, but it should certainly have a low contribution to the carbon footprint level itself. By using their purchasing power to choose goods, services and works with a reduced environmental impact, beneficiaries of the project can make an important contribution towards local, regional, national and international sustainability goals. Green Procurement can be a major driver for innovation, providing industry with real incentives for developing green products and services.

Provisions should be made to reduce the project's carbon footprint in all of the following sectors.

2.1 Transport

Transport criteria for Green Procurement cover the following set of products:

- Passenger Cars and Light Duty Vehicles (LDVs) directly purchased or leased/rented;
- Trucks directly purchased or leased / rented.

2.1.1 Passenger Cars and Light Duty Vehicles

For these set of products, the most significant environmental impacts are associated with CO₂ and other emissions, such as NO_x, NMHC, and particulate matter and noise emissions. Also, maintenance aspects concerning the environment should be taken into account. Therefore, the approach to be followed when procuring these products is to purchase or lease low emission vehicles.

Throughout the project duration and three years after the end of the project, when procuring passenger cars, the average fleet CO₂ emissions should not exceed 130 gr CO₂ per kilometer. When procuring Light Duty Vehicles, the average fleet CO₂ emissions should not exceed 170 gr CO₂ per kilometer.

Throughout the project duration and three years after the end of the project, when procuring passenger cars and light duty vehicles, engines should comply with the EURO V standard or higher.

According to Directive 2007/34/EC, the noise emissions when procuring passenger cars, should not exceed 74 dB (A), while the noise emissions when procuring Light Duty Vehicles up to 3.5 tn should not exceed 77 dB (A).

Additionally, if the vehicle is fitted with an air-conditioning system designed to contain fluorinated greenhouse gases, the specific gas must have a global warming potential (GWP) ≤ 150 (related to CO₂ and a time horizon of 100 years). If the GWP is higher, the leakage rate from the system must not exceed 40g of fluorinated greenhouse gases per year for a single evaporator system, or 60g of fluorinated greenhouse gases per year for a dual evaporator system.

Moreover, the abovementioned vehicles should be equipped with the following:

- Information or instructions on eco driving;
- Gear shift indicator equipment (GSI);
- Tyre pressure monitoring system (TPMS);
- Fuel consumption display.

Regarding lubricants, the beneficiary or the leasing company contracted should commit to or verify the use of low viscosity level lubricants (SAE 0W30, 5W30 or equivalent) or regenerated base lubricants (regeneration base should be at least 25%) in maintenance operations.

Regarding vehicle tyres, the following specifications should be procured:

- Noise level limits for passenger cars bearing tyres with nominal section width less than 185 mm, should not exceed 70 dB (A). Noise level limits for passenger cars bearing tyres with nominal section width between 185 and 215 mm should not exceed 71 dB (A). Noise level limits for passenger cars bearing tyres with nominal section width between 215 and 245 mm should not exceed 71 dB (A). Noise level limits for passenger cars bearing tyres with nominal section width between 245 and 275 mm should not exceed 72 dB (A). Noise level limits for passenger cars bearing tyres with nominal section width over 275 mm should not exceed 74 dB (A).
- Tyres of Light Duty Vehicles noise level limits should not exceed 72 dB (A).
- Tyres of passenger cars and Light Duty Vehicles should meet the rolling resistance standards set by ISO 28580. For passenger cars all tyres procured should comply with an upper limit value of 10.5 kg/tonne for rolling resistance and their fuel efficiency should be at least that of label E. For Light Duty Vehicles all tyres procured should comply with an upper limit value of 9.2 kg/tonne for rolling resistance and their fuel efficiency should be at least that of label E.

2.1.2 Trucks

For these set of products, the most significant environmental impacts are associated with CO₂ and other emissions, such as NO_x, NMHC, and particulate matter and noise emissions. Also, maintenance aspects concerning the environment should be taken into account. Therefore, the approach to be followed when procuring these products is to purchase or lease low emission vehicles.

Throughout the project duration and three years after the end of the project, when procuring trucks vehicle engines should comply with the EURO V standard or higher. In case of used trucks purchases, vehicle engines should comply with the EURO IV standard or higher.

When procuring trucks, pollutant emissions should comply with the following upper limits (according to Directive 97/68/EEC):

- For vehicles with engine power between 130 kW and 560 kW, CO emissions should not exceed 3.5 g/kWh, HC and NO_x emissions should not exceed 4 g/kWh and PM emissions should not exceed 0.2 g/kWh;
- For vehicles with engine power between 75 kW and 130 kW, CO emissions should not exceed 5 g/kWh, HC and NO_x emissions should not exceed 4 g/kWh and PM emissions should not exceed 0.3 g/kWh;
- For vehicles with engine power between 37 kW and 75 kW, CO emissions should not exceed 5 g/kWh, HC and NO_x emissions should not exceed 4.7 g/kWh and PM emissions should not exceed 0.4 g/kWh;
- For vehicles with engine power between 19 kW and 37 kW, CO emissions should not exceed 5.5 g/kWh, HC and NO_x emissions should not exceed 7.5 g/kWh and PM emissions should not exceed 0.6 g/kWh.

According to Directive 2000/14/EC, the noise emissions when procuring trucks, should not exceed 102 dB (A).

Regarding lubricants, the beneficiary or the leasing company contracted should commit to or verify the use of low viscosity level lubricants (SAE 0W30, 5W30 or equivalent) or regenerated base lubricants (regeneration base should be at least 25%) in maintenance operations.

Regarding vehicle tyres procured, the noise level limits should not exceed 73 db (A) for normal tyres and 75 dB (A) for traction tyres.

Tyres of trucks should meet the rolling resistance standards set by ISO 28580. For vehicles of this category all tyres procured should comply to an upper limit value of 7 kg/tonne for rolling resistance and their fuel efficiency should be at least that of label D.

2.2 Office IT equipment

Office IT equipment covers the following set of products:

- Computers, which includes stationary computers (personal computers, small scale servers and workstations) and portable computers;
- Computer monitors;
- Imaging equipment, which includes photocopiers, printers, scanners, faxes and multifunction printers, i.e. printers with copier, scanner and fax capabilities.

2.2.1 Computers and computer monitors

For these set of products, the most significant environmental impacts are associated with electricity consumed during their use. Therefore, the approach to be followed when procuring these products is to purchase energy efficient models.

Throughout the project duration and three years after the end of the project computers and computer monitors procured should meet the energy efficiency requirements of the latest version of the Energy Star standard (available at <https://ec.europa.eu/energy/en/energy-star>). The versions in force at the time of drafting the current Memorandum of Understanding is 6.1 for stationary and portable computers, 7.0 for display monitors and 2.0 for enterprise servers.

Other criteria to be taken into account when procuring computers and computer monitors include:

- Noise levels of central processing units (CPUs) should not exceed those defined by ISO 7779: Standby < 40 dB(A) and accessing CD ROM drive < 45 dB(A).
- Noise levels of portable computers should not exceed those defined by ISO 7779: Standby < 35 dB(A) and accessing CD ROM drive < 40 dB(A).
- Mercury concentration in the backlighting of liquid crystal displays (LCDs) should not exceed 3,5 mg per lamp.

In portable computers, the batteries should not contain mercury in concentrations higher than those specified in Directive 91/157/EEC. If hazardous batteries are used they should be easily separable and should be labeled according to the above Directive.

Moreover, in order to assure product lifetime extension, all products included in computers and computer monitors should be warranted for two years. The warranty should cover repair or replacement (battery defects included) and a service agreement with options of pick-up and delivery or on-site repairs.

Finally, for all products included in computers and computer monitors the availability of spare parts, necessary to repair or replace defect components, should be guaranteed for at least three years from the date of the purchase.

2.2.2 Imaging equipment

For these set of products, the most significant environmental impacts are associated with the incorporation of technical specifications such as the ability for double-sided printing, the electricity consumed during their use and the availability of spare parts to repair or replace defect components.

Throughout the project duration and three years after the end of the project all imaging equipment procured should meet the energy efficiency requirements of the latest version of the Energy Star standard (available at <https://ec.europa.eu/energy/en/energy-star>). The version in force at the time of drafting the current Memorandum of Understanding is 2.0 for imaging equipment.

Printers with maximum printing speed higher than 45 pages per minute should support automatic double-sided printing operation for printing in A4 size paper. All other devices with lower printing speeds should at least provide manual double-sided printing options for printing in A4 size paper.

An additional criterion to be taken into account when procuring printing devices or devices supporting printing operations is its noise level. The declared A-weighted sound power level (L_{WAd}) should not exceed those defined by ISO 7779. The upper limit acceptable value is:

$$L_{WAd}: 0.035 \cdot CPM + 5.9 (B)$$

where CPM = copies per minute and B = bells.

Moreover, all devices under this category should not exceed 7,5 (B) L_{WAd} , except for devices with $CPM > 71$.

2.3 Cleaning products and services

Green cleaning is the process of choosing cleaning products that are better for both people and the planet. Switching to green cleaning products is good for the health and wellbeing of working people, and it also prevents unnecessary chemicals from being released into the environment.

Cleaning products and services cover the following set of products:

- All-purpose cleaners, sanitary cleaners and window cleaners;
- Detergents for dishwashers (not applicable in the current Memorandum of Understanding);
- Hand dishwashing detergents (not applicable in the current Memorandum of Understanding);
- Laundry detergents and pre-treatment stain removers for washing machines (not applicable in the current Memorandum of Understanding).

2.3.1 Cleaning products

For these set of products, the most significant environmental impacts are associated with air pollution, human health and waste generation.

Throughout the project duration and three years after the end of the project all cleaning products procured should be environmental friendly. That means that they should not contain substances included in Article 59 of the REACH regulation (Regulation (EC) No 1907/2006). The list of substances is available at this [link](#).

Also, the dosing instructions of cleaning products should be clearly stated. In the case of trigger sprays packaging, the product should also provide refilling possibilities.

2.3.2 Cleaning services

In the case where the cleaning services are performed by third party companies, the cleaning company contracted should carry out its services in an environmental sound manner.

The contractor should demonstrate its capacity to provide environmental friendly cleaning services. This includes using environmental friendly cleaning products, as described in the previous section, and carrying out regular trainings of its staff on health, safety and environmental protection subjects.

2.4 Food and catering services

This section covers catering services procurement when organizing events under the frame of LIFE GreenYourRoute project. Throughout the project lifetime, nine workshops will be organized to disseminate GYR platform. Instead of seminars, webinars will be organized, to reduce the project's footprint and avoid travelling. However, apart from the workshops, the green procurement criteria set for catering services are also applicable for project meetings organization throughout the project duration.

Throughout the project duration and three years after the end of the project, when procuring catering services, a percentage of products provided should be organic. Moreover, the catering company contracted should carry out its services on an environmental sound manner.

Therefore, at least 30% (in € spent) of the products provided when contracting a catering service should have been produced organically according to Regulation (EC) 834/2007. These products include dairy products, meat, vegetables, potatoes, tomatoes, eggs, etc.

In cases where the catering company providing the service is responsible for the offered menu choice, seasonal products should be preferred.

Moreover, when choosing catering services, companies fulfilling the following criteria should be preferred:

- Products are offered in recycled packages or packages containing at least 45% of recycled material;
- Packaging material is based on renewable raw material;
- No individual portion packaging is foreseen.

When contracting catering services provisions should be made that single use cutlery, plates, or other catering equipment is avoided. In case single use equipment cannot be avoided, it should be based on renewable raw material.

All waste produced when providing the service should be collected according to its material. Catering company's fleet should be constituted from vehicles complying at least with EURO IV standard regarding pollutant emissions.

3 Implementation

With the signing of the Memorandum of Understanding, University of Thessaly and Associated Beneficiary, agree to jointly follow the guidelines mentioned in the previous section. To verify proper implementation of the Green Procurement guidelines presented in the previous sections the Associated Beneficiary should send to University of Thessaly the self-assessment form presented in the Annex of the current Memorandum of Understanding once per trimester, starting from April 1st, 2019.

Associated Beneficiary should share the abovementioned guidelines to all departments and agencies.

4 Effective date

This agreement shall be effective on January 1st, 2019.

Signatories

Dr. Georgios K.D. Saharidis

University of Thessaly

Volos, Greece, ... / ... / 2018

Legal representative's name

Associated Beneficiary's name

City, Country ... / ... / 2018

Annex: Self-assessment form

Beneficiary _____

Reporting period (trimester) from .../.../20... to .../.../20...

Date of submission _____

Transport

No of Passenger Cars purchased/leased _____

No of Light Duty Vehicles purchased/leased _____

If any of the above categories is non-zero, please proceed to Passenger Cars and Light Duty Vehicles checklist.

No of Trucks purchased/leased _____

If any of the above categories is non-zero, please proceed to Trucks checklist.

No of maintenance tasks performed _____

In case of maintenance tasks performed, please proceed to Maintenance task checklist

Office IT equipment

No of Computers purchased _____

No of Computer monitors purchased _____

No of Imaging Equipment purchased _____

If any of the above categories is non-zero, please proceed to Office IT equipment checklist.

Cleaning products and services

Cleaning products

No of Cleaning Products purchased _____

If the above is non-zero, please proceed to Cleaning Product checklist.

Cleaning services

No of Cleaning Services contracted _____

If the above is non-zero, please proceed to Cleaning Services checklist.

Food and catering services

No of Catering Services contracted _____

If the above is non-zero, please proceed to Food and catering services checklist.

Passenger Cars and Light Duty Vehicles checklist

Please fill in the following for each Passenger Car or Light Duty Vehicle purchased or leased.

Type of vehicle _____
Car brand _____
License Plate _____
Chassis Number _____
Date of procurement _____

CO₂ emissions compliance Yes No

Type of Verification provided

Vehicle's technical sheet

Other (please specify) _____

EURO standard compliance Yes No

Type of Verification provided

Vehicle's technical sheet

Other (please specify) _____

Noise emissions compliance Yes No

Type of Verification provided

Vehicle's technical sheet

Relevant test results

Other (please specify) _____

Air conditioning gases compliance Yes No

Type of Verification provided

Information on air conditioning gases provided by the supplier

Leakage test results

Other (please specify) _____

Eco driving instructions availability Yes No

Gear shift indicator equipment Yes No

Tyre pressure monitoring system Yes No

Fuel consumption display Yes No

Type of Verification provided (for the abovementioned equipment)

Vehicle's technical sheet

Other (please specify) _____

Trucks checklist

Please fill in the following for each Truck purchased or leased.

Type of vehicle _____
Car brand _____
License Plate _____
Chassis Number _____
Date of procurement _____

EURO standard compliance Yes No

Type of Verification provided

Vehicle's technical sheet

Other (please specify) _____

Pollutant emissions compliance Yes No

Type of Verification provided

Type I Ecolabel

Test results from an official exhaust gas control body

Manufacturer's certificate

Other test certificate (please specify) _____

Noise emissions compliance Yes No

Type of Verification provided

Vehicle's technical sheet

Relevant test results

Other (please specify) _____

Maintenance task checklist

Please fill in the following for each maintenance task performed.

Type of vehicle _____
Car brand _____
License Plate _____
Chassis Number _____
Date of procurement _____

Scheduled maintenance

Tyre change

Lubricants compliance

Yes No N/A

Type of lubricants purchased

SAE 0W30

SAE 5W30

Other (please specify) _____

Type of Verification provided

Lubricants' technical sheet

Written commitment for their use

Other (please specify) _____

Tyre change

Yes No N/A

Type of tyres purchased (please specify) _____

Tyre compliance...

Noise levels Yes No

Rolling resistance Yes No

Type of Verification provided

Tyres' technical sheet

Noise level test results

Rolling resistance test results

Written commitment for their use

Other (please specify) _____

Office IT equipment checklist

Please fill in the following for each Computer or Computer Monitor purchased.

Type of equipment _____
Equipment brand _____
Model _____
Date of procurement _____

Energy star compliance Yes No

Energy star standard (please specify)

Type of Verification provided

Energy Star label

Test report

Other (please specify) _____

Noise emissions compliance Yes No

Mercury concentration of LCDs Yes No N/A

Mercury concentration of batteries Yes No N/A

Double sided printing operation Yes No N/A

Type of Verification provided

EU Ecolabel

Type I Ecolabel

Other (please specify) _____

Two year warranty Yes No

Availability of spare parts

Yes

No

Type of Verification provided

EU Ecolabel

Type I Ecolabel

Written commitment

Other (please specify)

Cleaning Product checklist

Please fill in the following for each Cleaning Products procured.

Type of product _____
Product brand _____
Date of procurement _____

Absence of dangerous substances Yes No

Type of Verification provided

Type I Ecolabel

ISO 14024 Ecolabel

Safety data sheet

Other (please specify) _____

Dosing Instructions availability Yes No

Trigger spray refilling possibility Yes No N/A

Cleaning Services checklist

Please fill in the following for each Cleaning Service procured.

Contractor _____

Date of procurement _____

List of Products used Yes No

*Cleaning products compliance ** Yes No

*Written commitment ** Yes No

** For each product included in the list the contractor should also provide a Cleaning Product checklist along with proof of product's compliance and written commitment for the use of these products.*

Training of contractor's staff Yes No

Type of Verification provided

Training certificates

Other (please specify) _____

Food and catering services checklist
Please fill in the following for each Catering Service procured.

Contractor _____
Date of procurement _____

Menu list Yes No

Percentage of organics products compliance Yes No

Seasonal products indication Yes No

Multiple-usage equipment Yes No

Proper waste disposal Yes No

Type of Verification provided (for the abovementioned criteria)

Written declaration

Other (please specify) _____

Contractor's vehicles compliance with EURO IV standard Yes No

Type of Verification provided

Vehicle's technical sheet

Other (please specify) _____