

Sustainable Public Procurement-fiche: advanced

1) Subject matter

Environmental friendly gardening machines

“For <.....> (name of the public authority), the care for the environment and social aspects is important. It is stated in her <strategic policies>, <mission>, <vision>, <procurement policy>, ...”

2) Exclusion criteria

Non compliance with environmental and social legislation, which has been the subject of a final judgment or a decision having equivalent effect, may be considered an offence concerning the professional conduct of the economic operator concerned or grave misconduct, permitting to exclude the party concerned from competing for the contract

Ref:

Art. 53 and 54 of Directive 2004/17/EC and Art. 45 of Directive 2004/18/EC

3) Technical capacity (not exclusive)

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4) Technical specifications

Product design

The filling system is designed in a way that fuelling the engine and the supply with additional operating fluids can be done without leakage losses. [EU toolkit comprehensive criteria]

Machine materials and components

- Plastic components weighing more than 50 g must be marked according to ISO 11469. Electrical cables are not subject to this requirement. [EU toolkit comprehensive criteria]
- The following halogenated flame retardants must not be added to plastic materials:
 - o Polybrominated biphenyls (PBB)
 - o Polybromated diphenyl ethers (PBDE)
 - o Highly-chlorinated short-chain chloroparaffins



Noise emission

The noise emission of the machine is lower than the following noise levels:[EU toolkit core criteria]

- Lawnmowers
 - o $L \leq 50$ cm: 94 dB/1 pW
 - o $50 < L \leq 120$ cm: 98 dB/1 pW
 - o $L > 120$ cm: 103 dB/1 pW
- Strimmers
 - o electric engine: 94 dB/1 pW
 - o combustion engine: 104 dB/1 pW
- Brush saws
 - o $\leq 1,5$ kW: 107 dB/1 pW
 - o $> 1,5$ kW: 110 dB/1 pW
- Chainsaws
 - o $\leq 2,5$ kW: 105 dB/1 pW
 - o $> 2,5$ kW: 110 dB/1 pW
- Hedge trimmers
 - o electric engine: 96 dB/1 pW
 - o combustion engine: 104 dB/1 pW
- Rotary cultivators: 96 dB/1 pW

Evidence:

The compliance with all the criteria mentioned above can be proved with one of the following labels:



Österreichisches
Umweltzeichen



Blaue engel



Nordic Swan

In case that the tendering company can present one of these labels, any further proof is not necessary. Any other suitable evidence from a recognized body can also be used.

5) Awarding the contract:

	<i>Criterion</i>	<i>Weight</i>
1	Price <i>Calculation (e.g.):</i> Lowest offered price/ stated price x 0,70	e.g. 70%
2	Environmental criteria (The public authority formulates the points it wants to assign to the below mentioned criteria) <i>Calculation (e.g.):</i> Total scored points / maximum number of points x 0,20	e.g. 20%
3	...	e.g. 5 %
4	...	e.g.

Environmental criteria

Product design

- Fuel tank permeation emissions don't exceed a CARB (California Air Resources Board) limit of 2 grams per square meter per day.
- The product has to be designed so that recycling is possible. Some principles that have to be fulfilled:
 - o fixed connections between different materials have to be avoid
 - o mechanical connections have to be easily opened
 - o coatings and bind materials are avoided
 - o it is possible to dismantle the devices easily, also with the purpose to repair
 - o the number of different materials is kept limited

Used fuel

- If the machine has a combustion engine, it runs on one or more of the following fuel grades: unleaded petrol with a benzene content of <1.0 % by volume, alkylate petrol, class A diesel oil, or biofuel-based engine fuel.[EU toolkit core criteria]
- The fuel consumption of four-stroke engines at 50% loading shall not be higher than 500g/kWh fuel, measured according to ISO 8178 or equivalent. [EU toolkit comprehensive criteria]

Noise emissions

Machines with lower noise emissions than the maximum included in the specifications.[EU toolkit core criteria]



Machine materials and components

- Plastic materials do not contain cadmium (Cd), lead (Pb), mercury (Hg) or compounds of these. [EU toolkit comprehensive criteria]
- The following phthalates are not added to plastic materials:
 - o Dicyclohexyl phthalate
 - o Diisobutyl phthalate
 - o Diisooctyl phthalate
 - o Diisononyl phthalate (DINP)
 - o Diisodecyl phthalate (DIDP)
- In addition, no substances are added to the plastics used in cases, parts thereof and handles which are classified according to Directive 67/548/EEC as
 - o carcinogenic
 - o mutagenic
 - o reprotoxic(See R-phrases in annex)

Process-related and technologically unavoidable impurities shall be exempt from this requirement.

- The plastics used in cases and parts thereof do not contain halogenated polymers and additions of halogenated organic flame retardants as e.g. tetrabromobisphenol (TBBPA).
- The following substances shall be exempt from this rule:
 - o Fluoroorganic additives (as, for example, anti-dripping agents) used to improve the physical properties of plastics, provided that they do not exceed 0.5 weight percent.
 - o Fluorinated plastics as, for example, PTFEs
 - o Small plastic parts with specific use properties weighing less than 25 grams. These parts may not, however, contain PBBs (polybrominated biphenyls), PBDEs (polybrominated diphenyl ethers) or chlorinated paraffins.
- The following maximum contents of polycyclic aromatic hydrocarbons are not exceeded in the handle materials:
 - o 1mg/kg: Benzopyrene
 - o 10mg/kg: sum of 16 PAHs (EPA)
- Surface treatment agents must not contain pigments or additives based on lead, cadmium, chromium, mercury or their compounds. [EU toolkit comprehensive criteria]
- Surface treatment may not contain more than 5 % by weight of organic solvents. - Chromium, nickel and their compounds must not be used for surface treatment.

Exceptions to the requirement:

- o Small components such as screws and hinges are exempted.
- o Components may also be surface treated with chromium and nickel if this is necessary due to chemical impact or physical wear, or where parts need to form a tight seal. If such parts are surface treated, the processor must meet the emission limits specified in the Ospar agreement (Parcom/Oscom) regardless of in which country the treatment is performed and the emissions occur.



- Any parts surface treated with nickel and chromium must be reusable/recyclable.

Exhaust gas emissions

The exhaust gas emissions are lower than those required by Directive 97/68/EC. The exhaust gas emission test of the machine shall be done in accordance with the general standard specified in EU Directive 97/68/EC and by a testing laboratory qualified under the same Directive. [EU toolkit core criteria]

Packaging

- Plastics used in packaging material do not contain halogenated organic substances.

Others

- The machine allows the use of biodegradable engine lubricant oils (for 2 stroke engines) or regenerated engine lubricant oils (for 4 stroke engines) [EU toolkit core criteria]
- Battery-powered machines must not use Ni/Cd batteries.

6) Performance clauses:

- A petrol can for domestic use, equipped with devices for reducing the risk of spillage, shall be offered to the buyer of the machine for domestic use.
- Spare parts are at least 10 years after the production of that device is stopped, available.

References

[Information of the public authority that used these clauses in a procurement case]



Annex R-PHRASES:

(R-phrases are mentioned on product labels and in product safety datasheets. It can be a useful tool for verification-procedures.)

<u>R1:</u>	Explosive when dry.
<u>R2:</u>	Risk of explosion by shock, friction, fire or other sources of ignition.
<u>R3:</u>	Extreme risk of explosion by shock, friction, fire or other sources of ignition.
<u>R4:</u>	Forms very sensitive explosive metallic compounds.
<u>R5:</u>	Heating may cause an explosion.
<u>R6:</u>	Explosive with or without contact with air.
<u>R7:</u>	May cause fire.
<u>R8:</u>	Contact with combustible material may cause fire.
<u>R9:</u>	Explosive when mixed with combustible material.
<u>R10:</u>	Flammable
<u>R11:</u>	Highly flammable
<u>R12:</u>	Extremely flammable
<i>R13 (obsolet):</i>	<i>Extremely flammable liquid gas (This R-phrase is no longer designated by the version of the GefStoffV published on 26.10.93.)</i>
<u>R14:</u>	Reacts violently with water.
<u>R15:</u>	Contact with water liberates extremely flammable gases.
<i>Merck R15.1</i>	<i>Contact with acid liberates extremely flammable gases.</i>
<u>R16:</u>	Explosive when mixed with oxidizing substances.
<u>R17:</u>	Spontaneously flammable in air.
<u>R18:</u>	In use, may form flammable/explosive vapour-air mixture.
<u>R19:</u>	May form explosive peroxides.
<u>R20:</u>	Harmful by inhalation.
<u>R21:</u>	Harmful in contact with skin.
<u>R22:</u>	Harmful if swallowed.
<u>R23:</u>	Toxic by inhalation.
<i>Riedel-de Haen R23K:</i>	<i>Also toxic by inhalation.</i>
<u>R24:</u>	Toxic in contact with skin.
<i>Riedel-de Haen R24K:</i>	<i>Also toxic in contact with skin.</i>
<u>R25:</u>	Toxic if swallowed.
<i>Riedel-de Haen R25K:</i>	<i>Also toxic if swallowed.</i>
<u>R26:</u>	Very toxic by inhalation.
<i>Riedel-de Haen R26K:</i>	<i>Also very toxic by inhalation.</i>
<u>R27:</u>	Very toxic in contact with skin
<i>Riedel-de Haen R27A:</i>	<i>Very toxic in contact with eyes.</i>
<i>Riedel-de Haen R27K:</i>	<i>Also very toxic in contact with skin.</i>
<i>Riedel-de Haen R27AK:</i>	<i>Also very toxic in contact with eyes.</i>
<u>R28:</u>	Very toxic if swallowed.
<i>Riedel-de Haen R28K:</i>	<i>Also very toxic if swallowed.</i>
<u>R29:</u>	Contact with water liberates toxic gas.




<u>R30:</u>	Can become highly flammable in use.
<u>R31:</u>	Contact with acids liberates toxic gas.
<i>Merck R31.1</i>	<i>Contact with alkalis liberates toxic gas.</i>
<u>R32:</u>	Contact with acids liberates very toxic gas.
<u>R33:</u>	Danger of cumulative effects.
<u>R34:</u>	Causes burns.
<u>R35:</u>	Causes severe burns.
<u>R36:</u>	Irritating to eyes.
<i>Riedel-de Haen R36A:</i>	<i>Lacrimating</i>
<u>R37:</u>	Irritating to respiratory system.
<u>R38:</u>	Irritating to skin.
<u>R39:</u>	Danger of very serious irreversible effects.
<u>R40:</u>	Possible risk of cancer. <i>CAUTION: Until 2001 this R-phrase was used for possible mutagenic or teratogenic risks as well. These risks are now labelled with R68!</i>
<u>R41:</u>	Risk of serious damage to eyes.
<u>R42:</u>	May cause sensitization by inhalation.
<u>R43:</u>	May cause sensitization by skin contact.
<u>R44:</u>	Risk of explosion if heated under confinement.
<u>R45:</u>	May cause cancer.
<u>R46:</u>	May cause heritable genetic damage.
<i>R47(obsolete):</i>	<i>May cause deformities. (This R-phrase is no longer designated by the version of the GefStoffV published on 26.10.93.)</i>
<u>R48:</u>	Danger of serious damage to health by prolonged exposure.
<u>R49:</u>	May cause cancer by inhalation.
<u>R50:</u>	Very toxic to aquatic organisms.
<u>R51:</u>	Toxic to aquatic organisms.
<u>R52:</u>	Harmful to aquatic organisms.
<u>R53:</u>	May cause long-term adverse effects in the aquatic environment.
<u>R54:</u>	Toxic to flora.
<u>R55:</u>	Toxic to fauna.
<u>R56:</u>	Toxic to soil organisms.
<u>R57:</u>	Toxic to bees.
<u>R58:</u>	May cause long-term adverse effects in the environment.
<u>R59:</u>	Dangerous for the ozone layer.
<u>R60:</u>	May impair fertility.
<u>R61:</u>	May cause harm to the unborn child.
<u>R62:</u>	Possible risk of impaired fertility.
<u>R63:</u>	Possible risk of harm to the unborn child.
<u>R64:</u>	May cause harm to breastfed babies.
<u>R65:</u>	Harmful: may cause lung damage if swallowed.
<u>R66:</u>	Repeated exposure may cause skin dryness or cracking.
<u>R67:</u>	Vapours may cause drowsiness and dizziness.
<u>R68:</u>	Possible risks of irreversible effects.



COMBINATIONS OF R-PHRASES:

- R14/15: Reacts violently with water, liberating extremely flammable gases.
- R15/29: Contact with water liberates toxic, extremely flammable gas.
- R20/21: Harmful by inhalation and in contact with skin.
- R21/22: Harmful in contact with skin and if swallowed.
- R20/22: Harmful by inhalation and if swallowed.
- R20/21/22: Harmful by inhalation, in contact with skin and if swallowed.
- R21/22: Harmful in contact with skin and if swallowed.
- R23/24: Toxic by inhalation and in contact with skin.
- R24/25: Toxic in contact with skin and if swallowed.
- R23/25: Toxic by inhalation and if swallowed.
- R23/24/25: Toxic by inhalation, in contact with skin and if swallowed.
- R24/25: Toxic in contact with skin and if swallowed.
- R26/27: Very toxic by inhalation and in contact with skin.
- R27/28: Very toxic in contact with skin and if swallowed.
- R26/28: Very toxic by inhalation and if swallowed.
- R26/27/28: Very toxic by inhalation, in contact with skin and if swallowed.
- R36/37: Irritating to eyes and respiratory system.
- R37/38: Irritating to respiratory system and skin.
- R36/38: Irritating to eyes and skin.
- R36/37/38: Irritating to eyes, respiratory system and skin.
- R39/23: Toxic: danger of very serious irreversible effects through inhalation.
- R39/24: Toxic: danger of very serious irreversible effects in contact with skin.
- R39/25: Toxic: danger of very serious irreversible effects if swallowed.
- R39/23/24: Toxic: danger of very serious irreversible effects through inhalation and in contact with skin.
- R39/23/25: Toxic: danger of very serious irreversible effects through inhalation and if swallowed.
- R39/24/25: Toxic: danger of very serious irreversible effects in contact with skin and if swallowed.
- R39/23/24/25: Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.
- R39/26: Very toxic: danger of very serious irreversible effects through inhalation.
- R39/27: Very toxic: danger of very serious irreversible effects in contact with skin.
- R39/28: Very toxic: danger of very serious irreversible effects if swallowed.
- R39/26/27: Very toxic: danger of very serious irreversible effects through inhalation and in contact with skin.
- R39/26/28: Very toxic: danger of very serious irreversible effects through inhalation and if swallowed.
- R39/27/28: Very toxic: danger of very serious irreversible effects in contact with skin and if swallowed.
- R39/26/27/28: Very toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.
- R42/43: May cause sensitization by inhalation and skin contact.
- R48/20: Harmful: danger of serious damage to health by prolonged exposure through inhalation.
- R48/21: Harmful: danger of serious damage to health by prolonged exposure in contact with skin.
- R48/22: Harmful: danger of serious damage to health by prolonged exposure if swallowed.
- R48/20/21: Harmful: danger of serious damage to health by prolonged exposure through inhalation and in contact with skin.
- R48/20/22: Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.
- R48/21/22: Harmful: danger of serious damage to health by prolonged exposure in contact with skin and if swallowed.
- R48/20/21/22: Harmful: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.
- R48/23: Toxic: danger of serious damage to health by prolonged exposure through inhalation.
- R48/24: Toxic: danger of serious damage to health by prolonged exposure in contact with skin.
- R48/25: Toxic: danger of serious damage to health by prolonged exposure if swallowed.
- R48/23/24: Toxic: danger of serious damage to health by prolonged exposure through inhalation and in contact with skin.
- R48/23/25: Toxic: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.
- R48/24/25: Toxic: danger of serious damage to health by prolonged exposure in contact with skin and if swallowed.
- R48/23/24/25: Toxic: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.



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- R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
 - R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
 - R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
 - R68/20: Harmful: possible risk of irreversible effects through inhalation.
 - R68/21: Harmful: possible risk of irreversible effects in contact with skin.
 - R68/22: Harmful: possible risk of irreversible effects if swallowed.
 - R68/20/21: Harmful: possible risk of irreversible effects through inhalation and in contact with skin.
 - R68/20/22: Harmful: possible risk of irreversible effects through inhalation and if swallowed.
 - R68/21/22: Harmful: possible risk of irreversible effects in contact with skin and if swallowed.
 - R68/20/21/22: Harmful: possible risk of irreversible effects through inhalation, in contact with skin and if swallowed.

