

Market consultation: Lot 4: Surface conservation

Commercial in confidence

Market consultation specialties Technology Center Land

Surface conservation: Pre-treatment cabin, spray booth for components and spray booth for ground bound systems

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## 1 INTRODUCTION

### 1.1 General

The Royal Netherlands Army (hereafter: RNLA) is preparing tenders for a possible contract for the delivery, maintenance and exploitation of equipment (specialties) for the maintenance, repair and overhaul of all its ground bound systems, i.e. trucks, tanks, armored vehicles and components. In order to find answers to questions with regard to the subject of the tenders and the way in which the tenders should be organized, RNLA has started this market consultation.

The information gathered in this market consultation will be used to determine:

1. whether the respondent is able to provide and maintain the equipment which meets the requirements as set out in Annex A.1, A.2 and A.3 Functional specifications.
2. whether the respondent is able to provide technical details, drawings and other information necessary to draft requirements for the build of the Technology Center Land which will house the equipment.
3. a suitable procurement strategy (according to European Public Procurement procedures) for:
  - a. Scope of the tender;
  - b. Suitability criteria;
  - c. Criteria for award;
  - d. Conditions for intellectual property and service levels;
  - e. Requirements for sustainability;
  - f. Specific requirements/innovations for the equipment.
4. the total life cycle costs for provision, implementation and support of the equipment in order to decide on the applicable procurement procedures;
5. possibilities for cooperation between RNLA and supplier.

The information obtained will not be used to draw up a shortlist.

You are not requested to provide highly detailed information or a detailed offer. As a response RNLA requests you to answer the questions as set out in Annex B and C.

## **1.2 Description organisation**

The RNLA is tasked with protection of peace and freedom. It defends the territory of the Kingdom of the Netherlands and of its allies, it protects and furthers international legal order and supports (local) governments in law enforcement, disaster relief and humanitarian aid, both nationally and internationally.

In order to fulfill its tasks, RNLA uses ground bound systems, such as trucks, tanks, armored vehicles and components. For these systems, maintenance and repair is carried out by RNLA in its Technology Center Land (hereafter: TCL). For this maintenance-process the ground bound systems are also sandblasted and painted.

2 CONTEXT OF THE PROJECT

2.1 **Background**

The current facility, where all ground bound systems are maintained, has become inconvenient and outdated; the building its infrastructure and equipment do not fully comply with health – and safety regulation.

As the Technical Division will be given a new building and transformed towards the Technology Center Land, some off the equipment needs to be replaced and some relocated. In case of the surface conservation functions this means a new pre-treatment cabin and spray booth for ground systems as well as a new spraybooth for components.

2.2 **Scope**

The equipment (specialties) in scope of *replacement* or removal are divided into the following lots:

Lot 1:	Lot 2:	Lot 3:	Lot 4:
Surface treatment	Innovation en Expertise facilities	Innovation and Expertise facilities	Surface conservation
1) Sand blasting chamber for ground bound systems  2) Relocate current (small) blasting booths for components	1) Engine test stand  2) Powertrain test stand	1) Vibrating table	1) Pre-treatment cabin 2) Spray booth for components 3) Spray booth for ground bound systems

The scope of this market consultation is lot 4: "Surface conservation": pre-treatment cabin, spray booth for components and spray booth for ground bound systems. If you are able to supply the equipment of Lot 1: Surface treatment or part of this equipment, please indicate so by answering the Lot 1: Surface treatment market consultation.

2.3 **Reason market consultation**

The new TCL needs to be equipped with the latest, new equipment for sandblasting, spray painting and testing and where possible, innovations in either the equipment itself or in the process of maintenance or in safety measures. In order to determine the equipment available, the innovations possible, the market and scope, the result of this market consultation will help to determine the scope of the tender and its design.

### 3 PROCEDURE AND PLANNING

#### 3.1 Procedure

The market consultation will be conducted in the English language. Respondents are requested to use either the English or Dutch language.

With this document the respondents are able to obtain a global view of the project requirements which the RNLA would like to investigate.

Respondents should bear in mind it is the RNLA's decision whether or not to commence with the next phase and in what way. Therefore, it should be noted that:

- with receipt of this market consultation it may not be inferred that (pre)contractual contacts with the RNLA have arisen, nor that a contract will be placed, nor that the project will be executed as currently envisioned, nor that the company of the respondent will automatically appear on the tender list;
- the RNLA retains the right to change the contents of the program and/or to end the program, without being obliged to pay any form of compensation;
- all costs with regard to the completion of this market consultation must be worn by the respondents and will not in any way be reimbursed by the RNLA.

By responding to this market consultation the respondent agrees to the above mentioned conditions. In the event that the respondent decides not to participate, he is kindly requested to inform the RNLA through Negometrix (as mentioned below).

The RNLA has the right to use any information provided by respondents for the future tender.

All questions and answers will be shared with all participating respondents. If certain information is commercial and/or technical in confidence this must explicitly be stated by the respondent. All questions and answers will be shared with all participating respondents. If certain information is commercial and/or technical in confidence this must explicitly be stated by the respondent. No information, pricing included, will be shared which is deemed confidential by respondent.

All correspondence and communication regarding this market consultation must be sent via Negometrix, the procurement platform of RNLA.

The respondent is kindly requested to provide the name of the point of contact when participating in this market consultation.

### 3.2 Planning consultation procedure

The following planning is applicable:

#	activity	Who	Date
1	Sending market consultation documents to selected parties	RNLA	8 December 2021
2	Date for issuing questions	Supplier	20 December 2021
3	Replying of questions / answers to all respondents	RNLA	6 January 2022
4	Submission of answers to market consultation	Supplier	24 January 2022
5	<ol style="list-style-type: none"> <li>1. Evaluation by the RNLA of the responses</li> <li>1. Consult supplier(s) and/or reference projects (if possible)</li> </ol>	RNLA/Supplier	<ol style="list-style-type: none"> <li>1. 25 January 2022 – 31 January 2022</li> <li>2. February 2022</li> </ol>
6	Sending end report to all respondents	RNLA	February / March 2022

#### 3.2.1

##### **Evaluation**

Subject to the first evaluation of your answers, RNLA may visit your company and/or reference projects i.e. clients/companies using the equipment in order to gain understanding of your company, your equipment and/or maintenance which you offer. RNLA will evaluate your answers and verify them by sending you questions.

## 4 FINALLY

The functional specifications of the pre-treatment cabin for ground bound systems, the spray booth for components and the spray booth for ground bound systems are set out in the following Annexes:

- Pre-treatment cabin for ground bound systems: Annex A.1.
- Spray booth for components: Annex A.2.
- Spray booth for ground bound systems: Annex A.3.

These functional specifications should give respondent enough information to answer the questions of both Annexes B and C. These questions apply to Annex A.1, A.2 and A.3 (please use the form in Word as provided with this document), which forms the essence of this market consultation. You are requested to answer them as completely as possible.

Annex D is the price sheet. Your pricing should be based on the requirements of Annex A.1, A.2 and A.3. Pricing is confidential information and will not be shared as end result of the market consultation.

Your remarks and/or supplements are highly appreciated and can relate to various aspects such as: financial, organizational, practical, technical and/or legal aspects, quality assurance, but can also relate to the planning.

If you have any questions about this market consultation, please feel free to contact the contact person through the Negometrix platform.

Finally, the RNLA would like to thank you in advance for the effort you will make by participating in this market consultation.

1 ANNEX A.1 – FUNCTIONAL SPECIFICATION PRE-TREATMENT CABIN

**1.1 Introduction**

This Annex A.1 is a summary of the requirements for the new pre-treatment cabin to be built for complete ground bound systems.

The new cabin is intended to replace the existing, pre-treatment cabin. Not in the current infrastructure, but at the new to build TCL building.

This Annex A.1 starts with a short description of the pre-treatment process itself. The pre- and post-treatment are not described in this Annex A.1 but in the market consultation documents for lot 1: Surface treatment.

Also included in this Annex A.1 are climatic conditions and other operational aspects. Subsequently, a number of specific and global requirements are discussed, together with a list of ground bound systems.

All this data together should provide insight into the type of facility that is required.

**1.2 Process**

The daily process is that the capacity is used for approximately 80% of the demand. The Ministry of Defense imposes additional requirements with regard to capacity, in connection with deployments or so-called crash actions. At these peak times, there is a demand for 40-45 pre-treated systems per week, ready to spray.

The cabin itself is equipped with room extraction and a central extraction system. There are ground bound systems with chromate containing paints, these are no longer sanded in the pre-treatment cabin. This means that the cabin is in principle Cr6 free. During sanding and other operations, all kinds of substances are released that must be extracted via the room extraction. After the work, the employees must pass through a decontamination unit before entering the workspace. The employees use Personal Protective Equipment (PPE) at all times during the work. Disposable overalls, gloves and face protection with active filters and air supply are standard equipment.

An important part of the process is that the employees work in a safe and healthy environment.

**1.3 Daily procedure**

Pre-treatment consists of a number of different operations. The ground bound systems receive the correct pre-treatment according to the condition of the ground bound system and the desired result (rust, roughening, complete or partial).

There are 3 to 4 people working in the cabin at the same time where sanding is taking place. Other activities involve 2 to 3 employees working at the same time.

**1.4 Special Operations**

Ground bound systems are prepared for spraying. These systems are sprayed to blend on missions or to stand out. Due to the lower effort per vehicle, 45 vehicles can be sanded per week. There are about 6 workers sanding at the same time.

**1.5 Operational requirements**

This paragraph lists the basic operational requirements.

- Pre-treatment room capacity: ~139 ground bound systems & other objects/year
- Uptime: ~900 hours/year
- Number of operational employees: maximum 6 at a time
- max. product dimensions (L x W x H): 16.5 meters x 2.5 meters x 4 meters

- (truck/trailer combination)
- max. product weight (incl. load carriage): 70,000 kg (Leopard II on load carriage)
- Further in this document is a table with the most common ground bound systems that are painted.

Environmental conditions during use;

- Temperature range outside,  $T_{\text{outside}}$ :  $-12\text{ °C} \leq T_{\text{outside}} \leq 27\text{ °C}$
- Temperature range during pre-treatment in the booth,  $T_{\text{booth}}$ :  $12\text{ °C} \leq T_{\text{booth}} \leq 25\text{ °C}$

The operations that will be applied in the new to build cabin are:

- a. sanding with a pneumatic sander;
- b. lightly roughen, manually with fine sandpaper;
- c. chopping aluminum with air gun;
- d. grinding;
- e. blasting with a mobile blasting system, where the blasting medium is extracted directly at the nozzle;
- f. laser cleaning.

All these operations belong in a closed room, compared to a standard sanding cabin, some additions/adjustments are needed.

Extraction is a must for all work. The central extraction system is suitable for connecting the pneumatic sanders and for extracting the substances released during chipping and grinding. A different extraction system will be used for blasting and laser cleaning.

Evidently, the cabin and associated facilities and equipment comply with all ATEX<sup>1</sup> regulations. We expect the filter installation will be marked as a zone 20 . The pre-treatment room itself is not an ATEX zone.

The entire cabin must be designed and build, as economically as possible. Energy is recovered where possible and energy consumption is kept as low as possible. For example: design all lighting as LED lighting.

## 1.6 User requirements and equipment

### *User requirements*

Internal dimensions of the pre-treatment booth:

- Length: 22 meters;
- Width: 6 meters;
- Height: 5.5 meters to the plenum, 5 meters to the crane track.
- Clear opening of the doors to transport the vehicle in the pre-treatment cabin, width 5 meters, height 5.5 meters, the doors are preferably folding doors (read: quick-closing).
- Air flow is oblique, air is blown in over the entire length on the left or right side (inlet opening 3 meters wide, 22 meters long). On the other side in the lower part of the wall, extraction is carried out over the entire length. Please note: no plinth on the floor due to dust accumulation.

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<sup>1</sup> ATEX comes from the description of the hazardous materials, as written in French — "Appareils destinés à être utilisés en ATmosphères EXplosives." The translation into English reads, "Devices intended for use in explosive atmospheres."

- In-cab light intensity of 1000 Lux, with a color of ~6000 K.
- The installation is equipped with a fire alarm and extinguishing system.
- At the rear of the cabin is a niche, preferably 2 meters by 8 meters, to place cabinets in which the tools and PPE are stored.
- The cabin is easy to clean;  
The cabin is equipped with an adequate decontamination unit for personnel according to legislation and regulations.

#### *Equipment*

##### Crane:

- The crane has a lifting capacity of 3,000 kg. Crane track length of 6 meters in the first 10 meters and a parking space in the corner. The version is with a single trolley.

##### Central extraction system, including vacuum cleaner outside the cabin.

- an extraction point every 4 meters on each wall for the sander or the supplied hose to vacuum the floor;
- system is equipped with a Hepa filter system;
- vacuum cleaner bag is equipped with a so-called infinite bag;
- vacuum cleaner is suitable to support 6 sanders.

##### A 240 V connection at every point of the extraction system.

- In the cabin 2 x 2 400 V/32 A connections, each separately fused. This is to enable us to connect the blasting machine or the laser machine and the associated vacuum cleaner.
- All windows must be able to be blinded from the inside, because of the laser cleaning.
- All access doors to the cabin must be fitted with a safety device to interrupt the power during laser cleaning (the 400V connections).
- The complete installation must be provided with its own compressed air system.

## 2 ANNEX A.2 – SPRAY BOOTH FOR COMPONENTS

### 2.1 Introduction

This Annex A.2 is a summary of the functional requirements for the new to build spraying and drying installation for components.

This new installation is intended to replace the existing installation, not in the current infrastructure, but in the new to build TCL building.

This Annex A.2 starts with a short description of the spraying and drying process itself. The pre- and post-treatment are not described in this Annex A.2 but in the market consultation document for lot 1: Surface treatment.

Also included in this Annex A.2 are climatic conditions and other operational aspects. Subsequently, a number of specific and global requirements are set out, together with a list of ground bound systems.

All this data together should provide insight into the type of facility that is required.

### 2.2 Process

This installation is part of the last stages of the process 'maintenance of components'. The (parts of these) components differ in size, from valve covers to final drives of a tracked vehicle. All these components are maintained, overhauled and tested in a different department. After testing, the parts are offered for surface treatment and conservation. Parts are blasted or sanded before being painted. The base coat is sprayed on with a water-based lacquer, after the parts have been covered with a primer or sealer. An airless system is used for large surfaces other spraying takes is done with top cups. After spraying, the parts are moved to a large drying room where the sprayed components are dried on basis of temperature and/or air displacement (air velocity).

The installation is equipped with a separate spray booth, a separate drying booth and an overhead track system to facilitate spray painting large numbers quickly. Parts are hung where possible, if there is no other option, the parts are placed on a cart or pallet. The Technology Division also has a large spraying/drying booth for systems (see Annex A.3). This installation includes storage and a paint mixing area. The installation described in this Annex A.2 is close to the system installation and therefore does not need to have its own storage and/or paint mixing room. The painters use Personal Protective Equipment (PPE) at all times during the spraying activities. Disposable overalls, gloves and face protection with active filters and air supply are standard equipment.

### 2.3 Operational requirements

This paragraph lists the basic operational requirements of the spray booths.

- Uptime: ~900 hours/year
- Number of operational employees: 1 painter
- Spray booth dimensions (LxWxH): 7m x 4m x 3.5m
- Drying cabin dimensions (LxWxH): 15m x 7m x 3.5m

Environmental conditions during use:

- Temperature range outside,  $T_{\text{outside}}$ :  $-12^{\circ}\text{C} \leq T_{\text{outside}} \leq 27^{\circ}\text{C}$
- Mix ratio vapor/air:  $0 \text{ g/kg} \leq x \leq 13.5 \text{ g/kg}$
- Temperature range during spraying in the booth,  $T_{\text{booth}}$ :  $16^{\circ}\text{C} \leq T_{\text{booth}} \leq 25^{\circ}\text{C}$
- Cabin Relative Humidity Range:  $35\% \leq \text{R.H.} \leq 70\%$

- Temperature range during drying,  $T_{\text{drying}}: 16^{\circ}\text{C} \leq T_{\text{drying}} \leq 60^{\circ}\text{C}$
- Air velocity laminar during spraying: maximum 0.3 m/s
- Air velocity laminar during drying: maximum 0.5 m/s

Depending on the type of paint, either the temperature (2K lacquers) or the air speed (water-based lacquers) is used for the drying process. If the air speed of 0.5 m/s is used, the minimum required temperature in the cabin is 16°C.

Evidently, the cabin and associated facilities and equipment comply with all ATEX regulations. The entire facility has been built as economically as possible, energy must be recovered where necessary. Consumption should be as low as possible where possible, for example all lighting should be LED.

#### **2.4 User requirements**

- The spray booth is equipped with a spray wall, the dimensions of which are WxH 6x2.5 meters;
- The air is supplied at the front across the width from the roof (the air is supplied from behind the sprayer and discharged in front of the sprayer, and so as much spray mist as possible is removed via the filter installation);
- The spray booth has a door with a width of 2 meters on each side. The hanging track runs through these doors;
- The front has a sliding door with a width of 2.5m x 2.5m;
- The installation is equipped with a suspension track. Rails with 8 suspension points each hang in the overhead track. These rails can be moved manually;
- The drying cabin has two access doors;
  - The drying cabin is designed in such a way that it also functions as an evaporation room;
  - Ability to divide the space into two equal parts;
  - Door 1: 2 meters wide, this is a passage for the overhead track only;
  - Door 2: 2.5 meters wide, passage for overhead track and carts.
- There is a space of approximately 7 meters between the spraying and drying cabin. This space is for hanging parts on the overhead track and for removing components from the overhead track;
- The cabin is easy to clean;
- Light intensity in the spray booth of 1000 Lux, with a color of ~6000K.

#### **2.5 Equipment**

- The spray booth is equipped with a connection for the airless system or the spray cup on both side walls. The pressure can be controlled at these points;
- The complete installation must be provided with its own compressed air system, the air is ready to spray;
- The installation is equipped with a fire alarm and fire extinguishing system.

3 ANNEX A.3 – SPRAY BOOTH FOR GROUND BOUND SYSTEMS

**3.1 Introduction**

This Annex A.3 is a summary of the requirements for the new to be built spraying/drying cabin for ground bound systems. The new cabin is intended to replace the existing, dated cabins. Not in the current infrastructure, but at the new to build TCL building.

This Annex A.3 starts with a short description of the spraying process itself. The pre- and post-treatment are not described in this Annex A.3 but in the market consultation document for lot 1: Surface treatment. Also included in this Annex A.3 are climatic conditions and other operational aspects. Subsequently, a number of specific and global requirements are set out, together with a list of paints and ground bound systems.

All this data together should provide insight into the type of facility that is required.

**3.2 Process**

The daily process is that the capacity is used for approximately 40% of the demand. The Ministry of Defense imposes additional requirements with regard to capacity, in connection with deployments or so-called crash actions. At these peak times, there is a demand for 40-45 fully painted ground bound systems per week. In addition to ground bound systems, this spray booth is also used for large parts, examples are newly made container frames, repaired wheel loaders, and other large items that cannot be sprayed for a spray wall (spray booth for components). The painters use Personal Protective Equipment (PPE) at all times during the spraying activities. Disposable overalls, gloves and face shields with active filters and air supply are standard equipment.

**3.3 Daily process**

Ground bound systems are completely pre-treated before they are painted. The pre-treatment starts with the cleaning of the system, depending on the condition of the system, blasting or sanding will be done. After sanding, the system is masked/taped. After the pre-treatment, the vehicles are sprayed with a sealer and/or primer. After the primer, most systems are sprayed in bronze green, lastly, the three-color stain pattern is applied in 2 spray passes. Depending on the surface and the type of system, the bronze green is applied with an airless system or a top cup sprayer. The camouflage is always applied with a top cup sprayer. After spraying, the paint will have to evaporate for a certain time. After evaporation, all applied masking is removed and any remaining points are polished or otherwise touched up. At the time of writing, 85%-90% of the paints used are Weilburger's water-based systems, the senosol products.

**3.4 Special Operations**

Ground bound systems are prepared for spraying, outside the spray/dry booth. After the preparation, 2 to 3 systems are sprayed simultaneously. First the sealer and/or primer is applied and as soon as possible the paint. If time pressure arises, such as during special operations, 2 to 3 painters will be working in the cabin at the same time. An airless system is used during this work.

**3.5 Operational requirements**

This paragraph lists the basic operational requirements.

- Capacity to be sprayed: ~139 ground bound systems & other objects/year;
- Uptime: ~900 hours/year;
- Number of operational employees: maximum 3 at a time;
- Max. product dimensions (L x W x H): 24 meters x 2.8 meters x 4.5 meters (truck/trailer combination);
- Max. product weight (incl. load carriage): 70,000 kg (Leopard II on load carriage);
- Max. area to be sprayed: 11,250 m<sup>2</sup>/year;

In paragraph 3.7 a table is added with the most common ground bound systems that are painted.

Environmental conditions during use;

- Temperature range outside,  $T_{\text{outside}}$ :  $-12\text{ °C} \leq T_{\text{outside}} \leq 27\text{ °C}$
- Mix ratio vapour/air:  $0\text{ g/kg} \leq x \leq 13.5\text{ g/kg}$
- Temperature range during spraying in the booth,  $T_{\text{booth}}$ :  $16\text{ °C} \leq T_{\text{booth}} \leq 25\text{ °C}$
- Cabin Relative Humidity Range:  $35\% \text{ R.H.} \leq 70\%$
- Temperature range during drying,  $T_{\text{drying}}$ :  $16\text{ °C} \leq T_{\text{drying}} \leq 60\text{ °C}$
- Air velocity laminar during spraying: maximum 0.3 m/s
- Air velocity laminar during drying: maximum 0.5 m/s

Depending on the type of paint, either the temperature (2K lacquers) or the air speed (water-based lacquers) is used for the drying process. If the air speed of 0.5 m/s is used, the minimum required temperature in the cabin is 16 °C.

*Please note: occupancy.* While there is 40% use of capacity, the uptime is 1400 hours. This apparent discrepancy is due to the fact that the 9 meter part of the spray booth will be mainly used and the 17 meter part only if the crane is needed for turning parts or because it concerns larger ground bound systems.

There is a negative pressure in the spray booth, so that spray mist cannot spread outside this booth.

Evidently, the cabin and associated facilities and equipment comply with all ATEX regulations. The entire facility has been built as economically as possible. Energy is recovered where possible. Energy consumption is, where possible, as low as possible. For example, design all lighting as LED lighting.

### **3.6 User requirements and equipment**

#### *User requirements*

- Internal dimensions of the spray chamber:
  - length: 26 metres, consisting of: 17 meters of the first room plus 9 meters of additional, second room, separated by a roller door;
  - width: 7 metres, because of the staff lifts;
  - height: 5.5 meters to the plenum, 5 meters to the crane track.
- The roller door (partition wall) is not visible when rolled up, the roller door is "stored" in the plenum.
- Clear opening of the doors to transport the ground bound system in the spraying area, width 4.5 meters, height 5.5 meters, the doors are preferably folding doors (read: quick-closing).
- Air flow is vertical, from top to bottom.
- The spraying program is designed in such a way that the areas of 17 and 9 meters can be linked or controlled separately and jointly.

- Light intensity in the spray booth of 1200 Lux, with a color of ~6000 K.
- The installation is equipped with a fire alarm system.
- The cabin is easy to clean;
- The basement is equipped with a safety system, in connection with maintenance. This can be provided in the program, with permissions, or with detection systems.
- The plenum is equipped with a safety system for maintenance. Safe working in the spraying/drying booth can be provided with programming (with permission levels) or with detection/sensors

### *Equipment*

In addition to the cabin, the paint-making area with storage is an important part of the equipment to be delivered. This will be further described in the next sub-section *Paint making area*. In addition to the paint making room, there are a number of pieces of equipment that must be supplied.

- Cold water system for cooling, including a demineralization installation.
- Operable personnel lifts/work platforms:
  - A platform on both the left and right side that can be moved three-dimensionally, over and along the vehicle to be painted. The correct connections for spraying are mounted on the lift, so that you do not have to work with long hoses. Scaffolding and ladders are no longer required with this equipment.
- Crane:
  - In the first zone of 17 meters a crane with a lifting capacity of 3,000 kg. The version is with a single trolley. The crane must have a parking position outside the cab. The crane is used to turn large parts (wheel loader) to be able to spray all places.
- An anti-fall system for the single painter if the lifts/work platforms cannot be used. This system is mounted over the entire length of the cabin. Optionally, the mounted crane track can also be used for this system.
- The complete installation must be provided with its own dry compressed air system for working air for equipment.

### *Paint making area*

This space is intended for preparing the sealers, primers and lacquers to be sprayed. There will also have to be a provision for storage for weekly consumption.

- Creation space dimensions (L x W): ~11 meters x ~2.6 meters.
- Storage dimensions (L x W): ~4 meters x ~2.6 meters.
- Floors of the spraying/drying booth, production area and storage are at the same height.
- In the mixing room are connections for the tools to be used (mixing table with extraction, shaker, gun cleaner, etc.).
- Both parts of the spray booth can be reached from the production area.
- Wash/sink with hot and cold water.
- The cabin is easy to clean;
- Light intensity of 1000 Lux with a color of ~6000 K.
- The temperature of the storage area is regulated, but is certainly within the limits of  $6\text{ °C} \leq T \leq 19\text{ °C}$ , independent of the ambient temperature and the temperature of the spray/drying booth.

### 3.7 List of lacquers and ground bound systems

The list below is a short summary and is by no means exhaustive, of the paints that are used. 85% to 90% of the systems are sprayed with water-based lacquer. The other 10% to 15% is sprayed with 2-component lacquer and in some cases with a 1-component enamel lacquer.

Manufacturer	Name product	CMR
Akzo Nobel Aerospace Coatings	HARDENER S 66/22 R	Yes
Akzo Nobel Aerospace Coatings	AERODUR FINISH C 21/100 UVR BLACK	No
Akzo Nobel Aerospace Coatings	Aerodur 37047 CF Primer Grey	No
Akzo Nobel Aerospace Coatings	VERF 2K, PU, AERODEX RAL 1013	Yes
Akzo Nobel Aerospace Coatings	Aviox CF Primer 37124	Yes
Akzo Nobel Car Refinishes	AUTOCOAT BT LV 850 WASHPRIMER Cf Black 8504-001	Yes
Akzo Nobel Car Refinishes	AUTOCOAT BT 300 CLEAR	Yes
Akzo Nobel Car Refinishes	Autoeryl RM Leadfree	Yes
Akzo Nobel Car Refinishes	Autoflex RX	Yes
Akzo Nobel Car Refinishes	Autocoat BT 800 Reducer Medium (8099-204)	Yes
Drost Coatings	ENAMEL 1K TOPCOAT SG	Yes
Lippens Paints	Enamel 1K dekverf	Yes
WEILBURGER Coatings GmbH	SENOSOL 2K-PUR-Hydro-Tarnfarbe ... F9 05-5010-111773	No
WEILBURGER Coatings GmbH	SENOSOL-Two-Pack EP Hydro-Primer	Yes
WEILBURGER Coatings GmbH	SENOSOL-2K-EP-Hydrometallgrund hellgrün 03-3607-112212	No
WEILBURGER Coatings GmbH	SENOSOL-Two-Pack-Waterbased ... Paint	No
WEILBURGER Coatings GmbH	SENOPOX-2K-Zinkstaubfarbe graugrün 16-0410-110137	Yes
WEILBURGER Coatings GmbH	SENOPOX-2K-Grundierung braunbeige ca. RAL 1011 03-0410-105132	Yes
WEILBURGER Coatings GmbH	SENOPUR-2K-Tarnfarbe ... 05-0376-113883	Yes

The table below gives some insight in the type of ground bound systems that are sprayed in the cabin:

Name	Quantity/yr	Length [m]	Width [m]	Height [m]	Weight [kg]
Boxer	8	8,4	3	3,2	36.000
Bushmaster	14	7	2,5	3,2	10.000
CV-90NL	36	7,5	3	3	32.000
Leopard 1 and 2 family	3	10,2	3,7	3	62.000
DAF 2300 line	0	11	2,5	3,7	13.000
DAF 3300 line	1	9	2,5	3,7	22.000
DAF 4442 line	5	7,3	2,5	3,5	7.600
Fennek	10	5,5	2,5	2,5	10.000
Mercedes 290/280 line	16	5,5	2,2	2,2	4.000
Container 45"	0	14	2,5	2,8	2.700
Boat	5	6,5	2,7	2,8	6.000
Bigger divers items	41				
Total	139				

**B.1 General questions about your company**

1. Please provide the full name of your company.
2. Is your company autonomic or does it belong to a larger holding?
3. Please provide the address of your company. And, if applicable: the name and address of a local company/distributor in The Netherlands.
4. Please provide the name(s) of the person(s) and their function who are responsible for answering this market consultation.
5. Which person will be the point of contact for this market consultation? Please provide name, telephone number and e-mail address.
6. If applicable: please describe relevant partnerships with other companies.
7. Which Quality Management System (QMS) do you use for design, development and production (for example ISO 9001:latest version)? If the system is certified, please enclose a copy to the response.
8. Do you have a Configuration Management system as part of the QMS, and if so, does this comply with ISO 10007?
9. Which main (sub)suppliers would be involved in this program? Please, enclose a separate description of the components and/or services they supply.
10. Please could you provide a summary of the most significant (military) orders related to your equipment over the last 5 years?
  - a. Is it possible for representatives of RNLA to visit a client and discuss the equipment (similar to the equipment as set out in Annex A.1, A.2 and A.3), its function and any points of interest for RNLA. Please note that we would like to visit without any representatives of your company.
  - b. What was the average time for you to develop, deliver and install the equipment and technical adjustment in these projects;
  - c. After installation, what, if any, items were generally left to address and within what time period were they resolved?

5 ANNEX C – QUESTIONS ABOUT THE EQUIPMENT AS SET UP IN ANNEX A.1, ANNEX A.2 AND ANNEX A.2 AND SERVICES

**C.1 General information**

11. Do you have equipment available for the RNLA that could be fit for the TCL, as described in paragraph 3 and which meets the requirements as set out in Annex A.1, Annex A.2 and Annex A.3 Functional specifications?
12. Is the equipment produced by you or are you a (authorized) reseller of the equipment?
13. Please describe the equipment by its functions and its components.
14. What are the most critical components of your equipment?
15. Which requirements need to be developed in your equipment in order to meet the requirements as set out in Annex A.1, Annex A.2 and Annex A.3 Functional specifications.
16. Where is your equipment in use?
17. Has (a prototype of) your equipment been tested yet and by which standard (MIL-STD, DEF-STAN etc.) and by whom?
18. Do you have equipment available or would you be able to act as main contractor for the design, delivery and installation plus maintenance for the equipment as set out in Lot 1: Surface conservation.

## **C.2 Specific questions**

19. What proposals do you have regarding granting access to the pre-treatment room as well as the controls of the installation for authorized persons only (i.e. trained persons)?
20. How do you guarantee the personal safety of the personnel for, among other things, all CRM-containing substances in the pre-treatment area and spray booths for components as well as systems ? What's new in personal security that could have a positive effect on it?
21. With regard to both spray booths (components and systems) it is possible to reuse the energy, do you have experience in doing so. if yes, please provide information on this project and the client.
22. With regard to the spray booth for components, the users also require a separate room for hand painting and airbrush work.
  - a. Do you have projects/ clients where you have installed such a room, if yes, please provide information on this project and the client.
  - b. Which method would you use to ventilate or filter this room?
  - c. What experience do you have in installing a hanging track in the spray booth, if yes, please provide information on this project and the client.

## **C. 3 Delivery and installation**

23. What activities do you foresee for delivery and installation, and what is generally the time you need for this.
24. What type of support do you need from RNLA in order to design/deliver and install?
25. C.4 Services: design What is a reasonable time period for you, after a possible contract award, to finish and hand over the drawings and other information necessary such as 'provisions for' for drafting the technical specifications for the procurement of the new TCL building.
26. What type of information and/or support do you need from RNLA for the drawings.
27. The order is placed before the actual delivery, how can you guarantee that the latest technology is delivered, especially with regard to filtering/possible decontamination and the HMI (both software and used PC)?

## **C.5 Maintenance**

28. What maintenance services do you provide? Or is maintenance provided by a third party.

29. What maintenance activities do you expect RNLA to execute? What type of training does this require?
30. Does your equipment have regular service intervals? Please specify.
31. What type of maintenance activities do you perform: predictive, preventive, condition-based, corrective. Does the maintenance include a change of the filters?
32. If preventive maintenance is part of your maintenance, what activities fall under preventive maintenance and how often is preventive maintenance done (once/twice a year)?
33. How long does preventive maintenance take?
34. Is preventive maintenance based on time or production hours?
35. What is the expected number of maintenance hours (preventive and corrective, excluding damage repair) considering the hours of operation of your equipment.
36. Above what level of operating hours will the cost of maintenance significantly increase?
37. If any, which (legal) inspections, as part of the maintenance, are applicable to the equipment?

#### **C.6 Spare parts**

38. Do you have experience with contracts for the delivery of spare parts on demand for longer periods (e.g. 10 years)?
39. Please provide a list with recommended spare parts and documentation available for maintenance.
40. What is the lifespan of your installation under normal use in the market?
41. The order is placed before the actual delivery, how can you guarantee that the latest technology is delivered, especially with regard to filtering/possible decontamination and the HMI (both software and used PC)?
42. How do you guarantee the supply of spare parts for the future, especially with regard to software and the necessary computers, in relation to the lifespan of your installation?

#### **C.7 Price information**

43. Please give a global price indication in accordance with the format of Annex D.
44. Is this price-information to be regarded as a rough estimate or has it been based on recent contracts with other customers?

Market consultation: Lot 4: Surface conservation

Commercial in confidence

**C.8 Finally**

45. Please state here any other technical / commercial information that you consider indispensable for the design/installation/maintenance of the equipment provisioning and the thorough understanding of your response.

6 ANNEX D – PRICING

This Annex is a separate document.