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Connecting Authorities for Safer Heavy Goods Traffic in the Baltic Sea Region

BUSINESS PLAN FOR IMPROVING CROSS-BORDER COOPERATION IN PROCUREMENT OF HGV CONTROL EQUIPMENT

The example of an infrared camera

Wolfgang Kersten

Meike Schröder

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Max Feser

Baltic Sea Region Programme 2007-2013

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– The example of an infrared camera –

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1 INTRODUCTION

This study is part of the C.A.S.H. project - Connecting Authorities for Safer Heavy Goods Traffic in the Baltic Sea Region. The C.A.S.H. project is part-financed by the European Union (EU) (European Regional Development Fund) through the Baltic Sea Region Programme 2007-2013. To find out more about the programme, visit http://eu.baltic.net/.

In the following, the project and its regional partners will be described.

1.1 Project introduction – C.A.S.H.

The C.A.S.H. (Connecting Authorities for Safer Heavy Goods Traffic in the Baltic Sea Region) project aims at developing practical solutions to make international road freight transport safer, more predictable and affordable in the Baltic Sea Region (BSR). The project intends to do this by:

- improving cooperation between authorities
- harmonizing training of inspection officials
- testing safety equipment and IT systems to be used by relevant authorities

The C.A.S.H. project is due to run for three years, from September 2009 to September 2012. The project will benefit not only the authorities inspecting the traffic through harmonized practices, but logistics business as a whole. The project is co-ordinated by Turku School of Economics in Finland, as part of University of Turku.

The C.A.S.H. project partnership is made up of 13 organisations in eight countries around the BSR (Figure 1), including:

- police and other authorities dealing with road traffic safety
- regional councils
- research institutes

Figure 1 The locations of the C.A.S.H. partner organisations and countries

With about one million road haulage companies in Europe and over 560,000 million tonne kilometres of goods transported annually on the roads of the BSR, road freight transport is big business.

Despite similar regulations, authorities in European countries may apply different practices and equipment to inspect the traffic. This puts additional pressure on road haulage companies which have to comply with regulations when they are already facing the challenges of a very competitive market.

In addition, more than 1,300 fatalities involving a heavy vehicle took place in the BSR in 2007, equal to 10 % of all accidents.

This is why 13 organisations from eight countries in the Baltic Sea area created the C.A.S.H. project. The project brings together police officers and other authorities inspecting Heavy Goods Vehicles (HGV) in the Baltic Sea area in order to spread good inspection practices across the region.

To find out more about the project and the different work packages, as well as a list of the participating countries and organisations, please visit the project website www.cash-project.eu.

1.2 Regional partner introduction

- *Danish National Police, National Traffic Center, Denmark*
- *Hamburg University of Technology (TUHH), Germany*
- *Hamburg Waterways Police, Germany*
- *Latvian Transport Development and Education Association, Latvia*
- *National Police Board, Sweden*
- *Norwegian Mobile Police Service, Norway*
- *Personal Protection and Law Enforcement Police / Traffic Supervision Division, Estonia*
- *Police of Finland, Finland*
- *Regional Council of Kymenlaakso, Finland*
- *Regional Council of South Karelia, Finland*
- *Regional Council of Southwest Finland, Finland*
- *Turku School of Economics (University of Turku), Finland*
- *University of Turku, Finland*
- *Vilnius Gedimino Technical University (VGTU), Lithuania*

2 BUSINESS PLAN

In the following, the purpose of this business plan as well as the steps of a purchasing process will be explained.

2.1 Purpose of this business plan

The aim of this business plan is to support public authorities by purchasing new control equipment with a focus on international cooperation. The purchasing process is described in detail to remind the purchaser which steps should be considered and it uses the example of an infrared camera.

The business plan is furthermore directed to public authorities, e.g. the police authorities within the BSR, but it can be adapted by companies as well. In the last case, some steps might be reduced depending on the company's legal status, like e.g. the bid-at-three rule.

2.2 Steps of a purchasing process

In the following, different steps of a purchasing process will be described. Figure 2 illustrates the interaction between several steps.

The process begins with a suggestion to buy equipment.

After the decision to buy new equipment has been made, research should be conducted in a second step to find information about existing products. This includes developing a list with advantages and disadvantages of the equipment.

Afterwards, offers for the identified comparable products should be obtained and product presentations should be organised, so that all open questions can be answered.

During a fifth step several joint excursions should be organised to present and to evaluate the practicability of the used equipment. After analysing the existing products, the decision should be made to buy or not to buy the new equipment. If the decision is to purchase the equipment and if national, regional and institutional procurement rules are fulfilled, the new equipment can be bought.

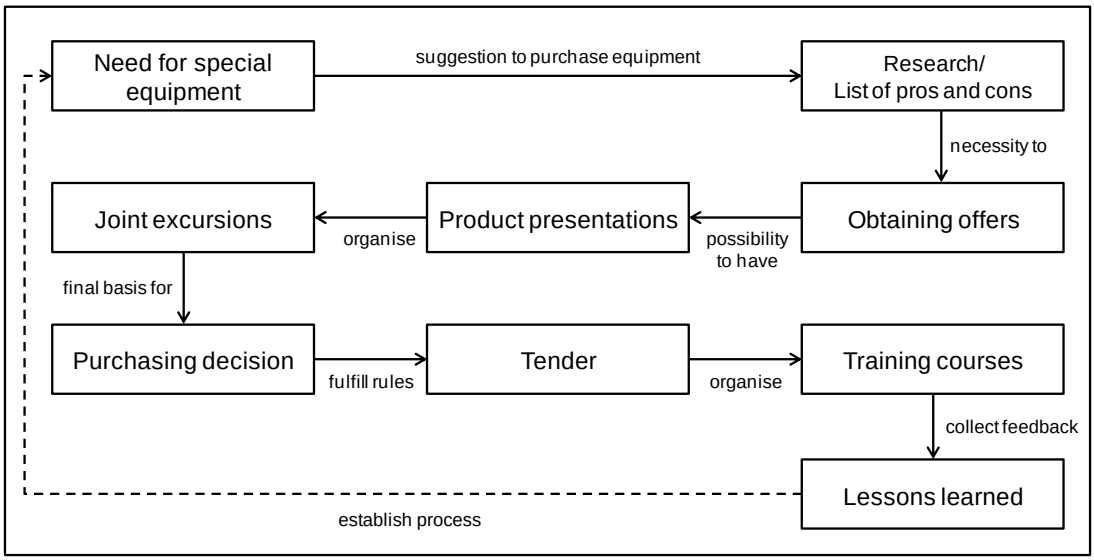

Figure 2 Steps of a purchasing process

After purchasing the new equipment, training courses should be organised to get used to the equipment.

The purchasing process ends with a lessons learned session, where the user should describe first experiences with the use of the new equipment.

2.2.1 Suggestion to purchase equipment

At the beginning of the purchasing process, the need for special equipment must be identified. In this case, the need for an infrared camera has been identified.

An infrared camera visualizes the temperature of objects. As brakes warm up during operation, it is possible to identify malfunctioning ones by measuring the temperature. Infrared cameras can be installed at stationary control points or can be used in a police car. The main advantage of infrared cameras is the fast detection of malfunctioning brakes.

2.2.2 Research – obtaining information about comparable products

After the decision to buy new equipment, research should be conducted to find information about existing products. These products should be compared with each other by using different kind of criteria. For an infrared camera possible criteria could be e.g.:

- price,
- performance,
- functionality,
- product features,
- weight,
- combination with other products,
- handling of the camera,
- user friendliness

A list with all pros and cons of the equipment, in this case the infrared camera, should be developed. The results of the different criteria should be compared with each other. The following list shows some examples of pros and cons of an infrared camera. This list could also be used as a basis for discussions with colleagues.

PROS

- User-oriented layout and clear menu navigation
- Large measurement distances up to 3 meters
- Digital photo option
- Image and temperature data can be stored on SD cards
- For operating in darkness an additional lamp is included
- The camera is splash-water resistant and shock-proof
- Long battery life
- The camera can be used to control the transport of temperature-dependent dangerous goods
- Integrated USB-A and USB-B ports
- …

CONS

- Low refresh rate/low frame rate
- Only one side of a vehicle is controllable
- A high reduction of speed is necessary so that heat radiation can be measured

- The usage of the camera is restricted (e.g. certain weather and temperatures, surface conditions, long distances to the object)
- …

Authorities or companies who already use the equipment should be asked for a field report and for further information. In addition, trade fairs, for example Traffex (http://traffex.com/) or Intertraffic (http://www.intertraffic.com/) can be visited where manufacturers and retailers of equipment exhibit their products. At these exhibitions, the latest products and services can be seen and best practices can be shared.

At the end of this step, several products should be identified which seem to have similar functionalities.

2.2.3 Obtaining offers for comparable products

In a next step, offers for the identified comparable products should be obtained. They need to be requested from manufacturers. It is also helpful to find out whether the product can be combined with other products which are already in use.

2.2.4 Organising product presentations

In addition, product presentations with manufacturers should be organized. It might be beneficial to invite colleagues from other departments, especially those who must agree to the buying process. During these product presentations, all open questions can be answered. Sometimes additional features may be shown which have not been registered by the purchaser before. The list of advantages (pros) and disadvantages (cons) can then be detailed further or be extended by new criteria.

2.2.5 Organising joint excursions to evaluate the practicability

If feasible, it is helpful to extend the list of pros and cons by meeting and analysing the equipment with users of the product or comparable products. This is usually not possible during product presentations.

However, it is also a good opportunity to show which requirements exist for the product in use and how they can be tested.

Within the C.A.S.H. project, several joint excursions have been organised to present and to evaluate the practicability of the used road control equipment within the BSR. During the events, the participating police authorities showed their control equipment to the other police authorities.

2.2.6 Buying the new equipment

After analysing the existing products, the decision should be made to buy or not to buy the new equipment, in this case the infrared camera. Therefore, all involved institutions should be asked for necessary feedback regarding the buying process.

In order to ensure transparent contracting procedures, equal treatment and cost efficiency, public authorities must regard the institutional, regional and national procurement rules. One example is the ‘bid-at-three’ rule. This means that at least three offers for all contracting amounts above 500 EUR (excl. VAT) must be collected.

2.2.7 Organising training courses for the new equipment

After buying the new equipment, training courses should be organized to get used to the new equipment. Police officers must become familiar with the new equipment in different situations.

Within the C.A.S.H. project, joint excursions have been organized to train the practical use of the infrared camera.

2.2.8 Lessons learned

At least after 6 months a ‘lessons learned’ session should be organized. During this session the user should describe first experiences with the use of the new equipment. The list of advantages (pros) and disadvantages (cons) which has been created at the beginning of the buying process might be adapted. The feedback should be used to discuss the future purchase of equipment.

3 CONCLUSION

The aim of this business plan was to support public authorities by purchasing new control equipment with a focus on international cooperation. The business plan was described in detail so that the purchaser knows which steps to bear in mind. The process used the example of an infrared camera.

The purchasing process explained in this business plan encompasses the following steps: suggestion to purchase equipment, research/list of pros and cons, obtaining offers, product presentations, joint excursions, purchasing decision, tender, training courses and ‘lessons learned’ session.

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This study is part of the C.A.S.H. project - Connecting Authorities for Safer Heavy Goods Traffic in the Baltic Sea Region - running from September 2009 to September 2012.

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