**INNOVATION QUESTIONNAIRE**

**TEMPLATE**

For each innovation that the project will develop / has developed please answer the questions below:

**Title of the innovation \***

Secure And Fast rEal-time planneR for aUtoNomous vehicles (SAFERUN)

**Describe the innovation (in less than 1000 characters, spaces included) \***

*The project dealt with the development of new velocity planning algorithm and its implementation and testing on Laser Guided Vehicles (LGV). The main targeted market is the one of logistic where the main industrial player (E80) involved in the project has its main business. Actual velocity planning algorithms are mainly based on constant velocity profiles, typically designed in a very conservative way in order to meet the severe safety requirements characterising the field of autonomous transportation of big loads in industrial environments. While fulfilling safety constraints, actual solutions limit in a remarkable way the potential performances of the LGV in terms of path execution and, as consequence, the productivity of the plant. In this respect the main novelty of the SAFERUN was to develop a new planning algorithm with variable velocity profiles optimally designed in real time and with embedded safety constraints.*

**Is the innovation developed within the project ... \***

b) Already developed but not yet being exploited

**Characterise the type of innovation \***

* Significantly improved product

**Is the innovation to be introduced to the market or to be deployed within a partner \***

* Introduced new to the market (commercial exploitation)

**Is there a clear owner of the innovation in the consortium or multiple owners? \***

* A clear owner

**Indicate the step(s) already done (or are foreseen) in the project in order to bring the innovation to (or closer to) the market**

* Done or ongoing

|  |  |
| --- | --- |
| *Technology transfer* | X |
| *Engagement of both research team and partner's business units in project activities* |  |
| *Business plan* |  |
| *Market study* |  |
| *Prototyping in laboratory environment* |  |
| *Prototyping in real world environment* |  |
| *Pilot, Demonstration or Testing activities* | X |
| *Feasibility study* |  |
| *Launch a start-up or spin-off* |  |
| *Standardisation* |  |
| *Application for private or public investment* |  |
| *Securing private investment* |  |
| *Securing public investment* |  |
| *Other (please specify)* |  |

If other, please specify

**Indicate which participant(s) (up to a maximum of 3) is/are the key organisation(s) in the project delivering this innovation. For each of these identify under the next question their needs to fulfil their market potential. \***

* Electric 80: industry involved in design a production of LGVs.
* University of Parma

Indicate their needs to fulfil their market potential

* Electric 80: Through SAFERUN they improved the performances of their products (LGVs) by providing an added value to the customers
* University of Parma: established a research partnership E80

**Market size: What is the approximate market size for this innovation \***

* Not known

**Market maturity: The market for this innovation is ... \***

* Mature: The market is already supplied with many products of the type proposed

**Level of innovation: What is the level of innovation \***

* Obviously innovative and easily appreciated advantages to customer

**When do you expect that such innovation could be commercialised? \***

* Between 1 and 3 years