**INNOVATION QUESTIONNAIRE**

**TEMPLATE**

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

**Title of the innovation \***

*Please enter a meaningful title for this innovation*

Mobile cable-driven parallel robot for warehousing (FASTKIT)

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

*Text of 1 to 1000 characters will be accepted (still 1 more characters expected)*

*The project FASTKIT developed a cable-driven parallel robot (CDPR) mounted on and integrated with an autonomous guided vehicle (AGV). This allows to load/unload objects in a high-bay rack where the mobile robot can move to different positions in the warehouse and the cable robot can access the objects on the shelves. The overall process can be made fully automatic as the demonstration in FASTkit, i.e. autonomous motion of the AGV, automatic folding and unfolding of the CDPR, and automatic operation of the cable robot to pick and transport the objects.*

*The development includes integrated control of the AGV as well as the CDPR. Additional control procedures tackled the problem of folding and unfolding of the cable robot which was not yet demonstrated in other systems.*

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

a) Under development

**b) Already developed but not yet being exploited**

c) being exploited

**Characterise the type of innovation \***

* **Significantly improved product**
* Significantly improved service (except consulting ones)
* Significantly improved process
* Significantly improved marketing method
* Significantly improved organisational method
* Consulting services
* **New product**
* New service (except consulting ones)
* New process
* New marketing method
* New organisational method
* Other

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

* Introduced new to the market (commercial exploitation)
* Deployed within a partner (internal exploitation: Changes in organisation, new internal processes implemented, etc.)
* **No exploitation planned**

**(At least for me, the exploitation plan with a company is not yet clear).**

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

* **A clear owner**
* Multiple owners

**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
* Planned in project
* Not planned in project but needed/desirable
* Not planned in project and not needed

|  |  |
| --- | --- |
| *Technology transfer* |  |
| *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* |  |
| *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. \***

**CNRS**

**IRT Jules Verne**

* Investor readiness training
* Investor introductions
* Biz plan development
* Expanding to more markets
* Legal advice (IPR or other)
* Mentoring
* Partnership with other company (technology or other)
* Incubation
* Startup accelerator

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

* **< €25M**
* €25M - €100M
* €100M - €250M
* €250M - €500M
  + €500M
* Not known
* € amounts are for global markets and per year

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

* **Not yet existing: customers are not buying such products (or are not yet ready to buy such products/services)**
* **Emerging: There is a growing demand and few offerings are available**
* Mature: The market is already supplied with many products of the type proposed

**Mixture between first and second options.**

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

* No innovation - other factors contribute to viability
* Some distinct, probably minor, improvements over existing products
* **Innovative but could be difficult to convert customers**
* Obviously innovative and easily appreciated advantages to customer
* Very innovative satisfies a well-known market need
* Market competition: How strong is competition in the target market? \*
* Patchy, no major players
* Established competition but none with a proposition like the one under investigation
* Several major players with strong competencies, infrastructure and offerings

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

* Less than 1 year
* **Between 1 and 3 years**
* Between 3 and 5 years
* More than 5 years

**(Of cause, this depends how much a company pushes further industrialization and commercialization but it could be done in less than three years).**