**INNOVATION QUESTIONNAIRE**

**TEMPLATE**

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

**Title of the innovation \***

*Robotic coach for low back pain exercises*

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

*The KERAAL project aims to develop a robotic system which is able to demonstrate and assess physical exercises for people with low back pain. The robotic coach should provide a more engaging way to do physical exercises and should be able to substitute therapists in order to do rehabilitation therapy without the presence of a trained clinician (e.g. at home, or in general out of the clinical centres).*

*I have several concerns about the actual innovation of the proposed system: i) it is not clear why a virtual trainer (using VR and serious games) can not be used instead of such a complex, delicate and expensive setup; ii) the number of implemented exercises (only 3) is too limited to be able provide a real clinical alternative to usual care practice, and the used hardware prevents to go beyond this limit*; iii) A clear exploitation plan and business model has not been prepared by the KERAAL research group.

In conclusion I reckon that the overall innovation of this project is very limited.

**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

**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* | Planned in project (but not done) |
| *Engagement of both research team and partner's business units in project activities* | Done or ongoing |
| *Business plan* | Planned in project (but not done) |
| *Market study* | Not planned in project but needed/desirable |
| *Prototyping in laboratory environment* | Done or ongoing |
| *Prototyping in real world environment* | Done or ongoing |
| *Pilot, Demonstration or Testing activities* | Done or ongoing |
| *Feasibility study* | Done or ongoing |
| *Launch a start-up or spin-off* | Not planned in project and not needed/desirable |
| *Standardisation* | Not planned in project but needed/desirable |
| *Application for private or public investment* | Not planned in project but needed/desirable |
| *Securing private investment* | Not planned in project but needed/desirable |
| *Securing public investment* | Not planned in project but needed/desirable |
| *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. \***

IMT Atlantique

Génération Robots

Indicate their needs to fulfil their market potential

* Biz plan development

**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~~

**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~~