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(*) Dissemination Level

- PU** Public
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2 List of acronyms

RRI Robotics Research Infrastructures

3 Executive Summary

The aim of WP6 is to reinforce and consolidate the TERRINet Community for long term perspectives. It aims both at identifying the needs for improving the robotics infrastructure and at launching a set of appropriate networking actions in order to guarantee the sustainability and maturation of database, tools, methods, software and hardware that are initiated within TERRINet.

The actions conducted within the framework of this WP are closely related to the unifying events during which partners will meet and discuss the strategies to be implemented. The ultimate goal of this workpackage is to elaborate plans for sustainability of European Robotics Research Infrastructures.

During the first reporting period we have identified three main needs for improving our infrastructure network. These needs are related the lack of common standards in the various infrastructures, the difficulty to attract users and the need for promoting our action at the European level. These identified needs are summarized below with. In each case we proposed some lines for possible actions.

We also propose a planning for a first unifying event in Toulouse during the last semester of 2019

4 Make our Robotics Research Infrastructure reach a normative level

During the first reporting period we have identified a risk coming from the use of heterogeneous techniques and tools and the lack of clear processing rules in the different robotics platforms. Such a variety should induce difficulties in collaborations, discourage users and engineers, and weaken the network efficiency. To face this problem, we propose to implement actions to make the RRI reach a level of standardization in order to ease collaborations and benchmarking, and increase the overall quality of experiments.

The following actions could be intended:

- By relying on technical discussions during the unifying events we should launch a joint networking action between partners to identify common standards (safety, terms of use, training protocols, software tools, simulation tools, links between tools and methods, contribution protocols, licenses, etc.)
- Once a year, during the unifying events, we should organize “Technical-meetings” gathering engineers from the different sites, in order to offer them the possibility to exchange about their tools and their expertise.
- We should also organize meetings focusing on specific technologies (e.g aerial robots, legged robots, sensors, etc.) to better emphasize on specific tools and needs.

5 Attracting users

We also have identified the risk that, unless actively conducting a recruiting action, the number of participants that apply to the TERRINet calls should be insufficient. We propose to intend the following actions to conduct a proactive recruitment:

- A dialogue between partners needs to be coordinated to standardize the actions to be done in order to make our platforms attractive.
- We also need to strengthen our advertising action about TERRINet at different levels, guarantee a level of training and common standards, and help potential users define a consistent collaboration plan.

6 Promoting TERRINet at the European level

Today, robotics research can hardly be conducted within isolated teams. Complex platforms, like humanoid robots, require high competences in various domains and a huge continuous effort for software integration and hardware maintenance. In particular pooling efforts and long-term engineering support are required.

- We should promote our platform by communicating with the EC, national research agencies and industry, in order to guarantee a level of financial support in return of ensuring a normative standard quality and the opening of our RRI.
- We should also promote the idea that the TERRINet network of platform be considered as the experimental infrastructure for further European projects

7 Unifying events

We plan to organize bi-annual unifying meetings simultaneously to summer/winter Schools at each partners platform in rotation all along the project. These plenary meetings will have the strategic relevance to assess the ongoing achievements of the project, discuss the deriving improvements and strengthen the TERRINet Community.

The first unifying event could be organized at LAAS-CNRS in Toulouse in fall or winter 2019

The Program could be organized on 4 days as follows:

- Half-day of visit and presentation of LAAS
 - Presentation and visit of the LAAS Robotics Platform
 - Presentation of activities the 3 Research Teams of the Robotics Department

 - Half-day of plenary meetings and technical exchanges between partners
 - Presentation and evaluation of the first training visits, use rate of RRI's.
 - Discussions related to the identified needs: Identification implementation of common standards, attractiveness of users, promotion of the TERRINet network at the European level.
 - Technical exchanges between engineers about their tools and expertise.

 - 3 days of training school given by the LAAS researchers:
 - Humanoid Robotics:
 - Motion Generation, Motion Planning
 - 1 day.
 - Contact person: Olivier Stasse olivier.stasse@laas.fr

 - Aerial Robots:
 - Modeling, Design, Control, and Estimation for Aerial Vehicles in interaction with their environment.
 - 1 day
 - Contact person: Antonio Franchi antonio.franchi@laas.fr

 - Human-Robot Interaction:
 - Decisional issues, Task and Motion Planning for Human-Robot Joint Action
 - 1 day
 - Contact person: Rachid Alami rachid.alami@laas.fr
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