DELIVERABLE D6.1 REPORT

DEVELOPMENT OF TECHNICAL INFASTRUCTURE

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Beneficiaries:	**ALD*,** GLA, HWU, IDIAP, CNRS
Work Package:	WP6: Robot and System Integration

*For the purpose of consistency with the current version of the official MuMMER documents, this report still refers to ALD. Aldebaran's name has changed to become Softbank Robotics Europe on 1st April 2016. This has no impact on ALD's involvement in the project. The request for change of legal name is pending in the participant portal.

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1 Description

This document reports on the progress in the first 6 months of the project on tasks **T6.1** (*Facilitating Robot platform for Partner Experimentation*) and **T6.2** (*Development and Management of Technical Infrastructure*), related to **WP6** (*Robot and System Integration*). As presented in the following sections, various steps have been taken to make both the robot and a basic infrastructure for software development available to the consortium from the very early months of the project, hence successfully achieving MuMMER deliverable **D6.1** (Development of Technical Infrastructure) and milestone **MS1** (T*echnical Infrastructure*) by the due date of **month 6**.

2 T6.1: Facilitating Robot platform for Partner Experimentation

The purpose of this task is to introduce the robot platform and the robot operating system in order to facilitate partners' experimentation. All the partners who were supposed to receive the Pepper robot have received the latest version of the robot (version 1.7 also called 1.6B). Concerning the operating system, ALD has provided a modular architecture for the software based on the existing operating system environment of its robots and the requirements of the partners by delivering packages based on ROS (Robot Operating System), instructions to install them and a tutorial to explain how to use them, either on a remote computer or embedded on the robot. ALD also granted access to applications to demonstrate and give example of the capability of the robot.

Figure 1: List of applications provided

This introduction will be completed by a 2-day training course that will take place at the beginning of September at Softbank Robotics' office in Paris. In order to ensure the efficiency of the training, we will regroup all the partners' questions in a common document and answer them during the training course.

3   T6.2: Development and Management of Technical Infrastructure
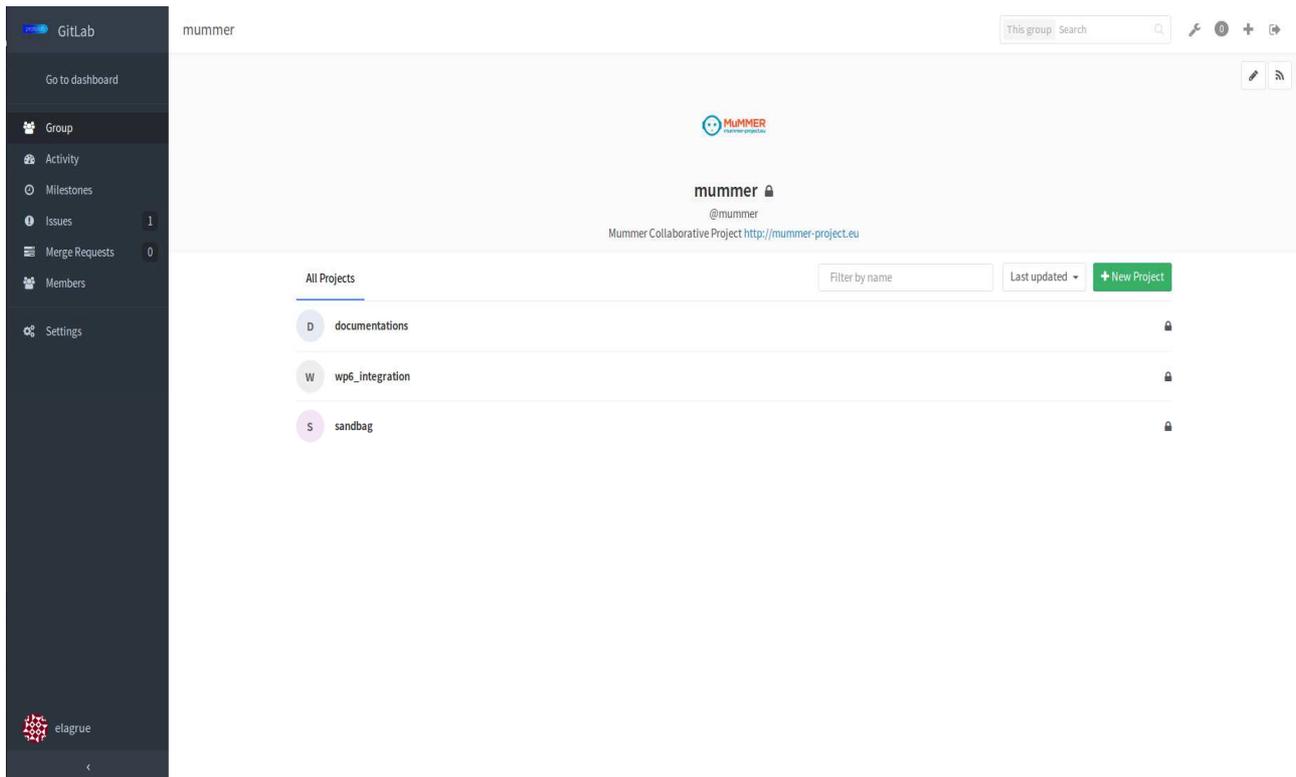
Figure 2: Git repository

The purpose of this task is to oversee the creation and maintenance of a central code repository and version control system, an issue tracking system, and a Wiki or other internal communications tool; the development and documentation of a set of technical software specifications to ensure that all components developed by WP2–WP5 are robust, modular, and reusable; and support for the final public release of the reusable software components developed during the project.

To achieve this task a git repository has been set up on gitLab (http://protolab.aldebaran.com:9000/), so far this includes two sections. One is for WP which is dedicated to maintain a central code and version control system. The other one is for the documentation, this section is used to centralise all the documents concerning the project, both administrative and technical. In the documentation section a wiki page has been set with different sections:

Getting Started:

This part focuses on technical tutorial:

- Getting Pepper started with ROS
- Installing ROS on pepper

Other

- Questions and answers

Figure 3: Git repository wiki page

The questions and answers section allows partners to exchange and communicate different problems and solutions they face. This provides a useful issue tracking tool. All partners can refer to this section when they look for a solution to a technical problem and can either create a new topic or find a solution if the problem has been solved previously.
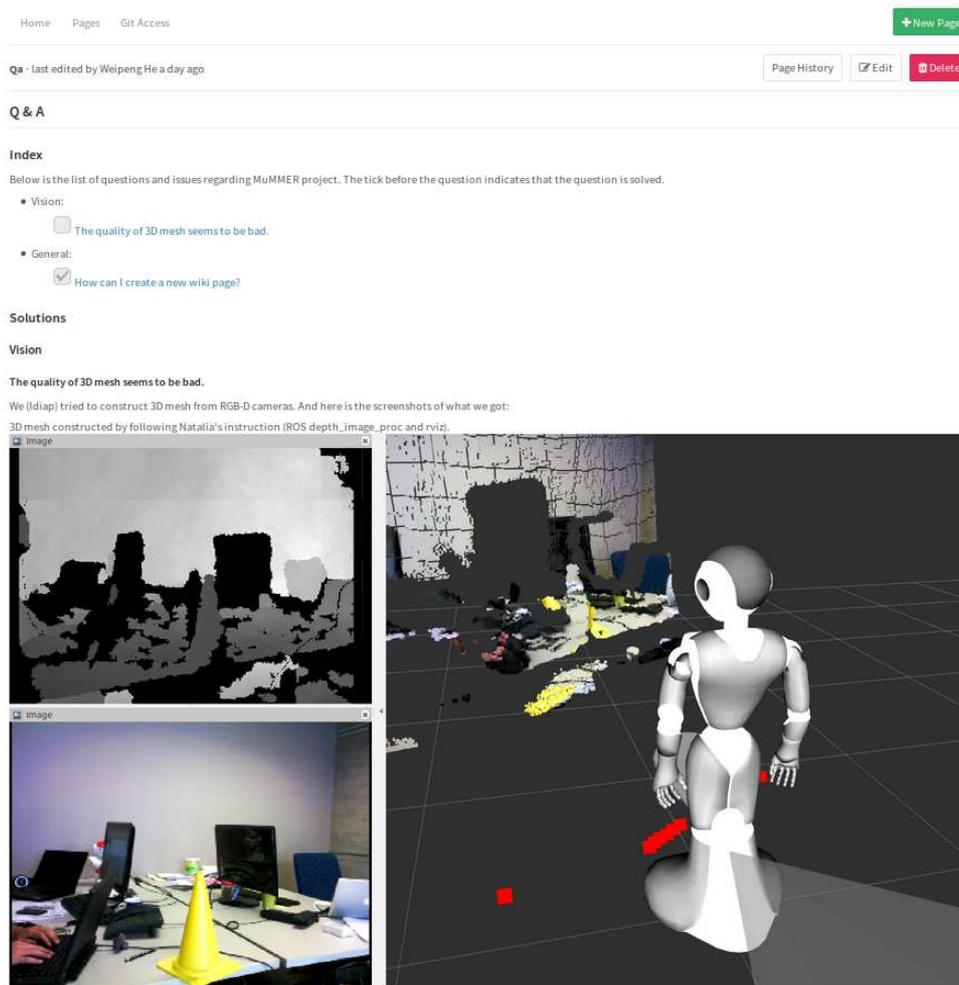
Figure 4: Q&A section

4 Outputs and Future Directions

The outputs at the end of month 6 are the following:

- Milestone MS1 has been successfully achieved,
- The robots have been successfully deployed at the partners' sites and are operational,
- A technical infrastructure was built and provided to support development as well as to facilitate the experiments with the robot from the very early stages of the project.

In addition, continuing on supporting the objectives of the concerned tasks (T6.1 and T6.2) and the project in general, three important decisions have been made and have already been implemented:

I. A dedicated mailing list for developers to discuss the technical issues within the consortium.
II. A regular fortnightly teleconference among the relevant partners for discussion on technical aspects.
III. A special 2 day advanced programming training course for technical partners, which is scheduled to be hosted by SoftBank Robotics at its Paris office in the first week of September 2016.

With the advancements presented in this document, the consortium is ready to achieve the tasks of WP6 (e.g. *T6.3 on System development, interaction and testing*).