

## MEETING REPORT – MM20180625

<b>Subject</b> : Meeting Minutes –WP4 LIST BELVAUX		<b>HMC</b>
Project	<b>GRoNe</b>	
Date :	<b>25.06.2018</b> - <b>9:30 - 17:00</b>	
<b>Participants</b>		
<b>Partenaires   Partners</b>		<b>Objectives of the meeting</b>
<b>Id.</b>	<b>Entity</b>	<p>The aim of the meeting is:</p> <ol style="list-style-type: none"> <li>1. to create/intensify the connections between the different teams of the consortium (within Action 4 of course but cross-link between actions, e.g. we need connections with Formation/Ausbildung)</li> <li>2. to define a collaborative work plan for 2018</li> <li>3. to clarify the governance within the Action 4 (information flux, collaborative tools)</li> </ol>
C.Beco L.LebLANc D.Handerek E.Taguem AC Romain T.Delaitte E. Nataf L.Ciarletta J.Fix F.Pennerath H.Freza-Buet D.Cazzato HM.Cauchie Ralf Moryson F.Issler	IDELUX IDELUX I-MAGE ULG ULG HENALLUX LORIA LORIA CSUPELEC (CS) CSUPELEC (CS) CSUPELEC UNILU LIST IZFP INNO8	
<b>items</b>		
Lieu	LIST Belvaux	
Attendance	There were 15 attendant people from 10 partners	
Agenda	<ol style="list-style-type: none"> <li>1. brief presentation (10 minutes) of the major R&amp;D topics currently explored by each team</li> <li>2. brainstorming of the possible connections</li> <li>3. collaboration plan and governance</li> </ol>	
Introduction	HM Cauchie introduced the meeting and the agenda. He insisted on the identification of further collaboration, especially between regions.	
LIST presentation	HM Cauchie presented the value-chain concerning the monitoring of algae in lakes. The different RDI actions are classified by technology readiness levels and the connections between the actions and partners are highlighted. Finally, a call for extending the partnership has been made.	
CSpresentation	Frédéric Pennerath presented the activities of CentralSupelec in the field of development of camera-based algorithms. The mid-term objective is to learn & improve the control model of a UAS “on-fly”. Concretely, it is planned to improve ULg’s analysis model of measures from low cost gassensors.	
Loria presentation	Laurent Ciarletta made a presentation of the on-going actions on the after-mining care. Activities concerns autonomous navigation and monitoring. There is further development of the existing software allowing accurate localization of explorer. These technologies can be applied easily to the other “environment” applications. There is also the building a complete simulation environment (co-simulation for scenario evaluation, mixed reality).	
ULg	Anne-Claude Romain highlighted the fact that her team is a new player in the field of drones. Eric Taguem presented the general context of gas emission from solid waste dumping sites, in the context of climate change. He presented the different probes and the study site. There is a need to densify the monitoring networks, so drones are particularly adapted. A short discussion on the need of low-cost sensors has arisen. The rationale for low cost relies on the need for multiplying the monitoring point, to reduce the cost in the case of lost, allow end-user with low budgets to access the	

	technology. There is a need for machine learning analyses.
I-mage Consult	Daphné Handerek presented the data analysis made on the water quality issue. She compared the image processing on orthophotos obtained using e-bee drone and the satellite photos obtained from Sentinel II. She highlighted the possibility to extract the blooming zones but also the drawbacks due to the photo merging and the lack of IR data for now. The support that machine learning can bring has been identified between CentraleSupelec and I-Mage Consult.
IZFP	Ralf Moryson presented the post-mining group activities. He highlighted the advantages of UAV in exploring and monitoring mines. Example of results in limestone mines (study of delamination of ceiling). Different monitoring processes have been used: thermography, laserscan, LiDAR, photogrammetry, hyperspectral, gas (methane),... Another example is the testing of surface properties of infrastructure such as dry film thickness measurement. Ralf underlined the need to detect large project to work together (H2020 – 2-8-2019).
Extension of current collaboration	Six different areas of new collaboration have been identified: <ul style="list-style-type: none"> <li>- Processing of environmental data about air quality including image interpretation and machine learning (Lead: Centrale Supelec; partners: ULg, I-mage Consult)</li> <li>- Near real-time (online) data acquisition (Lead: LIST; partners; ULg, IZFP, LORIA)</li> <li>- Strategy for indoor autonomous flight (Lead: IZFP; partners: Centrale Supelec, LORIA, uni.lu)</li> <li>- Methane monitoring in mines and industry (Lead: ULg; partner: IZFP)</li> <li>- Flight assistance for outdoor environment (planning the flight) (Lead: LORIA; partners: Centrale Supelec, uni.lu, LORIA)</li> <li>- Mapping of data available in the project (in order to improve the experimental design and the data analysis) (Lead: I-mage Consult; partners; LIST, ULg, IZFP,...)</li> </ul>
Governance and communication	This last point has only been discussed briefly due to a lack of time availability. HM Cauchie proposed to lead the Action 4, at least until the end of the year, in order to keep the Action running. For communication: on the short term, the information will be shared by email to the recipient list of Grone (with the indication ACTION in the title for rapid sorting of email) in addition to the broadcasting through the weblog.

## **Next step:**

The main next step is to organize technical sessions as soon as possible for each areas of collaboration identified during the meeting. The representatives of the Lead Institution (see above) will organize these meetings with the identified partners. The information about these meetings must however been announced broadly to the Grone consortium through email and the weblog.

These meetings should be organized before the end of September. The next GRONE Action 4 meeting could therefore take place at the end of September or beginning of October, in order to share the advances of the different R&D initiatives.