ATHENA
European University

DECEMBER 2020

Call for participation

Blended-AIM projects

EDITION 2020/2021

Westray proposal

BRIEF START-UP DESCRIPTION

The Virtual Watchkeeper Galene introduces Intelligent wariness into the bridge equipment, by fusing data from multiple sources to provide a comprehensive overview of the vessel's external situation. Our Virtual officer Galene will be deployable on any ship where there is a need for increased safety and efficiency, particularly during night-time sailings, heavy traffic areas, mooring or in adverse weather conditions but also to relieve the officer of many basic but time-consuming tasks such as auto logging or waiting for the pilot / supply vessel to arrive. Westray creates and develops an advisory solution to supplement basic information available from AIS, ECDIS and RADAR, adding sensors to create an accurate overall view by applying sensor fusion and advanced AI algorithms.

PROJECT DESCRIPTION: **Ensor fusion**

The project is the successful identification of floating objects on water using high resolution radars in combination with our existing stereo camera's, creating intelligent awareness using sensor fusion. This allows for advanced manoeuvring assistance of merchant vessels in complex and congested waters. The PoC will successfully detect and classify maritime objects with a hardware design, IP67, that will house multiple sensors and allows for easy installation & deployment. The marketing aspect will need to bring forth its unique features and selling points compared to the current technologies used. Showing the benefit of having advanced aiding systems on ships and in ports that can result in reduced Co2, higher reliable supply chain, higher port throughput. In addition, it is important to market the difference between full autonomous vessels and semi-autonomous systems with the benefits for the officers at sea.

Noteble proposal

BRIEF START-UP DESCRIPTION

Our start-up is called Noteble, a learning platform for primary, secondary and adult education. Our motto is “Start today with the education of tomorrow!”. Noteble is a platform for schools. Noteble is a learning platform that supports education tailored to the students and the school. With the changes within it educational landscape (also because of Covid) we see that tailor-made education is very important. However, the current learning platforms have not responded to this because they start from the structure of classes, subjects, and years. Noteble offers a one-stop-shop where the school can easily plan everything, involve students in the learning process, follow up individually and adjust where necessary. In addition, the platform has been set up in such a way that doesn't limit learning to learning within the school walls: it also facilitates the learning process outside the school walls. Because learning in the workplace (dual learning) is becoming the standard, this is also very important for schools. Extracurricular activities can also be mapped in such a way that the student gets a complete picture of his knowledge, his competences and his dreams and passions. This complete picture helps teachers, students and parents make faster and more informed decisions about the next steps in studies or work. Thanks to the transparency, we also ensure that all parties can see their work points more quickly and can start working with them immediately. Thanks to the integration with major platforms such as Google Classroom and Microsoft Teams, we also ensure that the school can continue to use known platforms and can strengthen this through the functionalities of Noteble.

PROJECT DESCRIPTION: **The world as a learning community**

INTRODUCTION One of the visions from Noteble is that learning doesn't stop after school hours. We already implemented certain features to facilitate dual learning so external mentors can evaluate students in the working environment via the same way as the teachers. We would like to expand this by introducing 'learning communities' where the educational sector (schools: (teachers and students) can work together with companies and mentors around schools area to learn from each other and to help students from choosing the right next steps in their study path.
PROBLEM/ISSUE The school environment and the working environment are not enough connected. This causes two issues, which we will tackle with this project: 1) Students need to make a lot of decisions throughout their student career, mostly related to their next steps in their study path. Currently this decision is mainly based on their study results (points) and less on their interests and talents (potential). Due to the fact, that students rarely get to know real work environments, they make decisions based on their gut feeling or their grades. (Example: A student who is studying classic languages and thinks his interest is 'working with cars' can only come into contact with this interest when choosing that study field. When they select this study field and don't like it they can't go back to classic languages that easily.) (Other example: A student goes from secondary education to university - we see that 20% of the students make the wrong choice due to a lack of information). 2) The world is moving fast, and innovation is happening every single day in every single industry. It is difficult for schools and teachers to catch up with this innovation cycle. This is however crucial as companies require that students are up to date with the latest innovations and changes in their industry. This results in a mismatch (expectations of companies vs the skills/knowledge of graduates).
PROPOSAL FOR SOLUTION/PROJECT Noteble wants to build learning communities where schools can connect with companies and vice versa. These would be the steps (but we are open for discussion and new ideas): Noteble already has a platform which can be used by schools for this program - we already have other schools that are a paying customer so we can involve them in the process too. The teachers and students will be able to use the platform/extra product. -- The student will have access to the platform and will have their own talent portfolio. In this talent portfolio they are able to get an overview of their talents and skills inside and outside the school. They also have access to 'discovery' paths which give them the possibility to interact with the working environment (mentors and companies). These 'discovery' paths give them the possibility to discover (hence the name) certain paths related to skills or competences which can help them to make better decisions on their own study path. These results will also be accessible for teachers. (see example later in the overview). The discovery paths can be personalized depending on previous experiences or knowledge. -- The teachers will have access to the platform and will have a 'knowledge' centre where they see 'knowledge' shared by other companies. The

knowledge will also be shared via discovery/study paths for the teacher. The teacher will have his own 'talent portfolio' where they can showcase the finished discovery paths. Discovery paths can be created by industry partners but could also be created by pedagogical partners. Companies have their own profile where they can create discovery paths for both students and teachers. Next to that they can create challenges which they can use to monitor the results of the students and can be used for the company as a screening tool for new graduated (for the job applications).

EXAMPLE BMW created a 'discovery' path around car mechanics. In this discovery path BMW added multiple tracks (depending on the already reached skills or competences) which can be accessed by the student. In the path BMW added multiple online discoveries (a mechanic which explains 'a day in the life of a mechanic', a course around innovation within the car industry, an offline activity which invites students to come to a BMW store, ...). At the end of the discovery path BMW also added a challenge which is open for the students. Via this challenge the students can see what their knowledge is about what they learned. At the same time BMW can see who are the students which performed the best and can give them an extra reward (for example an internship at BMW). Other students can add a badge on their talent portfolio which they can use during a job application. Next to this BMW also created a 'discovery' path for teachers which explains electrical engines. Teachers can use this knowledge to educate the students in the class and can use this path and the content in this path to share with the students.

WHAT IS NEEDED Noteble has a base platform (more information can be found at noteble.com) but we see this as an add-on to our current platform or even a new product. This means that we will need designers for the platform itself, it students for the development and marketing to see how we can market the platform/product and how we can convince companies to pay (? - if possible) to use the platform and what extra assets it can give for the companies.

Hylyght proposal

BRIEF START-UP DESCRIPTION

Hylyghts builds tools for experts in sports; directed towards talent identification and development in young athletes and towards injury prevention and return to sport screening in young and not-so-young athletes. We work with professional as well as recreational athletes and partner with national federations and large clubs but also with physio practices and hospitals.

PROJECT DESCRIPTION: **Test automation & creating a new product of the test automation by itself**

We use tests to gather relevant data. In talent ID and development we use jump tests (countermovement jump with and without arm swing), speed and agility tests (18/20/30m sprint tests with timing gates, T-test with timing gates etc), we test motor skills and a lot of other things that define performance in different sports. Our physios test things like landing biomechanics or knee stability, but also other functional tests, where they make a video of their athlete performing a test and evaluate the position of the knees and the pelvis etc on their computer or tablet. They measure angles on their athletes with a digital inclinometer (Hamstring length, ankle, hip and shoulder mobility etc), do functional tests (core stability, jump tests...) and strength in different muscles (quadriceps, hamstrings...). All these tests are very controlled and standardized, so we can compare data longitudinally, between peers and to the benchmarks and normative values, we use to evaluate each performance. The problem is that this takes a lot of time of our clients. To help our clients save valuable time, we would like to automate tests where possible: let timing gates communicate with our test app to send results, use our test app to film an execution of a jump + landing and automatically evaluate the parameters we need to evaluate, measure angles with their smartphone so the results are saved immediately for the right athlete etc. For this project we imagine choosing a few well-defined tests together with the team and coming up with a way to get test results in a quick but also reliable manner. If this project is a success, we would like to automate more tests, so we see this is one of the next big steps for our company. It is also demand-driven, so we have a test audience ready if needed. If we can come up with a reliable and automatic approach to testing, we would like to market this as a separate product as an entry-level product for organizations who test athletes (there are many of them).

CO2 Neutral (CO2N)

BRIEF START-UP DESCRIPTION

CO2N is a start-up that focuses on supporting the transition of individuals, organisations, and companies towards a CO2 neutral way of living and working. This is a pressing issue as to address climate change concerns and contributes to the European Union's decision to have a CO2 neutral economy by 2050.

PROJECT DESCRIPTION: **CO2 Neutral**

The approach to each target group (individuals, organisations, and companies) contains each time 4 steps:

1. Calculate the current CO2 emissions of the client.
2. Identify and agree on steps as to diminish the CO2 emissions footprint of the client.
3. The client provides a financial compensation for that part of CO2 emissions that cannot be removed, allowing for investment in carbon capture and sequestration through tree planting or avoidance of carbon generation through renewable energy, etc.
4. Give clear and real time feedback to the client on how the compensation investment is going and how much CO2 emissions have been reduced or avoided.

This is a field in which a lot still has to happen, and most initiatives fail to properly support the reduction of CO2 generation and to deliver regular and detailed feedback on CO2 compensation, being the basis for providing a communication/marketing advantage to clients. Investing in carbon capture and sequestration through tree planting should allow a client to see where his/her forest is planted and how it is growing, and the client should be able to communicate around this with clarity and certainty.
Furthermore, it is the aim towards companies for not only making their CO2 production/headquarters sites CO2 neutral, but more importantly their individual products taking into account relevant ISO standards. CO2 neutral products will receive a logo to testify this and provide for a marketing/competitive advantage. CO2N is financially rewarded for the support it delivers to clients to become CO2 neutral and for the communication/marketing advantage (e.g. logo) the client obtains.
The project development requires:

1. Fine-tuning of the business model for each target group. Define a gradual approach to launch the project.
2. Develop a marketing/communication plan towards the different target groups/key sectors
3. Develop proper house style and communication channels with respective target groups:
    a. Develops a CO2N house style and logo for individual commercial products e.g. water bottles, clothing, bikes...
    b. Connects to clients via website / Instagram / Facebook / …
    c. Develops client dashboard with visualisation/overview of clients CO2 performance + evolution over time
    d. Develop dashboard with visualisation/overview of the clients' CO2N investments (reduction of CO2) and show results/feedback on a regular basis (e.g. for each client specific tree planted area + picture/video showing individual results on a regular basis + possibility to share)
    e. Integrates a game element so that clients are motivated to further reduce CO2 emissions and increase compensation.
    f. Develops a dashboard for the company to gather relevant data
4. Strengthen the relations with the relevant organisations/companies that can deliver on the CO2 compensation projects with proper accounting and reporting.