ValtraHackathon – Harnessing Working Machinery Telemetry Data for Added Value for the End Customer

Digitalization, the utilization of data generated by working machines and decision-making based on real-time data create new opportunities to improve the efficiency of the use of working machinery and, by way, the profitability of farms. How can data generated in modern working machines be harnessed into a new intelligence that helps the machine operator to make decisions based on real-time data? In cooperation with Valtra Inc., the BioEconomy Business Accelerator BioPaavo and KasvuOpen are seeking solutions that can provide added value to the end customer from the data generated by the working machines, and hence contribute to the digitalization of sustainable food production and primary production, knowledge management, real-time data-based decision-making, adaptation to climate change and profitability in the food chain.

Digitalization, the utilization of telemetry data produced by working machines and decision-making based on real-time data create new opportunities to improve the efficiency of the use of machinery, primary production, food chain and sustainable food production, and hence the profitability of farms. In

modern machines, the amount of data generated is enormous. How can the resulting data be harnessed into a new intelligence that helps the operator of the machine make decisions based on real-time data? How can telemetry data produced by machines and publicly available big data be combined for the benefit of the user and support decision making? Advanced algorithmics could be used to refine and enrich data more efficiently and to identify on a data-based basis what is happening in or around the machine. Through data visualization, essential information can be perceived by the user, and relevant information that supports decision-making can be obtained from the data. The aim is to provide the machine operator with the right information, in the right form and in the right moment, thereby improving the user's situational awareness. By combining data sources and visualizing data, new value-added applications can be created for both end customers and for Valtra Inc., based on the data and AGCO's API-interface. As a result, it is possible to offer applications that facilitate the everyday life and decision-making of the machine operator, to both domestic and international end users through Valtra's and AGCO's customer portals.

Hackathon aims to highlight the potential of algorithmics and software development to utilize data generated by working machines and to develop new applications that improve end-user's situational awareness.

#digitalization #algorithmics #softwaredevelopment #telemetrydata #bigdata #workingmachines #datavisualisation #smartfarming #smartbioeconomy #situationalawareness

Welcome to solve the challenge!

What ValtraHackathon?

BioPaavo and Kasvu Open, in cooperation with Valtra Inc., are opening a Hackathon that aims to find solutions that can provide added value to the end customer from the data generated by the working machines, hence contributing to digitalization, knowledge-based management, real-time data-based decision-making and profitability of sustainable food production and primary production in the food chain. Hackathon aims to highlight the potential of advanced algorithmics and software development to utilize the data generated by working machines and to develop new applications that improve end-user's situational awareness.

Valtra Inc. is the leading manufacturer and service provider for agricultural tractors in the Nordic countries. Valtra tractors are known for their ease of use, versatility and durability. Tractors designed for individual needs are used by precision farmers using new technologies, agricultural contractors and professionals using more traditional mechanical machines.

Participants

Hackathon is open to all interested parties: companies, research institutes, educational organizations and students, as well as other actors. Your team can be made up of representatives of your organization, or you can form a team that crosses organizational boundaries for this very challenge!

More detailed application guidelines and rules for participation: https://www.jamk.fi/en/Research-and-Development/RDI-Projects/biopaavo/biopaavo/hackathon/valtra-hackathon/

Jury

The jury consists of representatives from Valtra Inc. and AGCO Finland Ltd., BioPaavo by JAMK, Kasvu Open and representatives from two expert organizations.

Why participate?

- Find new business opportunities
- Get to network with other participants
- You have the opportunity to develop long-term business cooperation with the sponsoring company Valtra Inc. and AGCO Finland Ltd.
- As a finalist, you will have access to the experts' know how and support in refining your solutions and building cooperation with the sponsoring company

Timetable

- Submit your application describing briefly your idea and team by **Sunday February 6th, 2022** at the latest. The preliminary proposal must describe the solution in its main dimensions, as well as an assessment of its feasibility and the partners and resources needed for commercializing it.
- The ideas and teams selected for the follow-up will be published on **Wednesday February 9th, 2022**.
- The Kick-Off event will be held as online event on **Wednesday February 16th, 2022**, when the participating teams will meet each other and representatives of the sponsoring company. At the kick-off event, Valtra will share with the participating teams more about the assignment and make available to the participating teams sample data on the basis of which solutions can be tested and refined.
- Hackathon Days are organized on **March 22-23rd, 2022.** On Wednesday, March 23rd, 2022 at the end of the day the winner team(s) will be selected. You can participate in the Hackathon event either in BioPaavo in Saarijärvi or via online tools.

▶ Sign up!

Webropol form: https://link.webropolsurveys.com/S/E9795D5BED543A2E

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Organizer

BioPaavo by JAMK is a Bioeconomy Business Accelerator that aims to create new business and globally significant solutions to combat climate change in the international bioeconomy environment. BioPaavo's key tasks are to develop bioeconomy business and create sustainable business based on new innovations, utilizing new technologies and digitalization, developing abilities and know-how, and building business networks and ecosystems. BioPaavo is a project funded by the Regional Council of Central Finland with the support of the European Regional Development Fund.

In collaboration with

KasvuOpen Ltd. is a non-profit subsidiary of the Central Finland Chamber of Commerce, whose core idea is to make growth companies and top experts come together. KasvuOpen is a nationwide sparring programme for growth companies. KasvuOpen's sparring process has been applied from the Growth Runway method developed by Mr. Marko Seppä, Professor of growth business operations at the University of Jyväskylä, and his team.