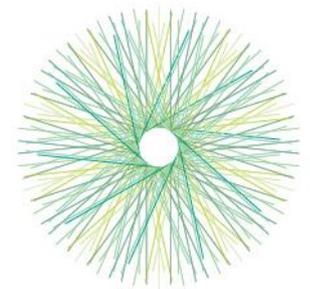


Inspirational ideas

NEWSLETTER AUGUST 2018



eip-agri
AGRICULTURE & INNOVATION

Agri-Hackathon

Tech for Agriculture was a data-focused hackathon held in Estonia in June. It aimed to gather fresh and innovative ideas and create new co-operation opportunities in the field of agriculture between The Netherlands and Estonia. Farmers, engineers, data scientists, developers 'played' with data to develop and then pitch ideas for new applications. "We built a land use monitoring tool using satellite data and Artificial Intelligence." – said Madhusudhan Srinivasa, one of the developers.



There are many exciting things happening at the moment on the agri-tech scene. Technology is producing solutions to current challenges the sector is facing. There are biotech startups inventing new super-power crops, hardware companies fighting against the drought, startups working on data-based solutions, and many more.

From 8-10 June 2018, the first Garage48 Tech for Agriculture hackathon took place in Tallinn (Estonia). The aim of a 'hackathon' is for people to work in groups intensively for a short period of time to create a new tech product or application. It is a competition and a winner is selected at the end of the event.

The 95 participants included farmers, engineers, data scrapers, data scientists, data-visualisers, back-end developers, front-end developers, UI/UX designers, business visionaries and marketing specialists. They were from Estonia, the Netherlands, USA, and many other countries. Upon arrival, they discovered their task "You've got 48 hours to change Agriculture".

The first day opened with an ideas pitch for new technological solutions. Participants could then choose which idea they wanted to work on and formed groups around 9 of the pitches. Databases from both Estonia (Agricultural Research Centre, Agricultural Registers and Information Board (Paying Agency), Land Board) and Dutch (the Netherlands Ministry of Agriculture, Nature and Food Quality, Wageningen University) institutions were made available to participants so that they could better develop their technology towards real-life problems.

Madhusudhan Srinivasa (developer) "As soon as the teams were formed we started building stuff. There were constant checkpoints during which we showed the progress to mentors and the jury. There was also training for pitching ideas. I guess this helped a lot of teams to prepare well and push in a direction of creating something that is usable and that is really working in the end."

At the end of the last day, the groups had 3 minutes to showcase a working prototype.

Here are just a few of the solutions which were developed/improved during the event:

- Bird's AI: Monitor land use using satellite data and artificial intelligence
- Dude! where is my tractor?: Sharing of farming machinery between farmers
- BuzzUp - Shazam for bees that prevents bee colony losses using bee buzzing to detect anomalies

Madhusudhan worked with Bird's AI "We built a land use monitoring tool using satellite data and Artificial Intelligence. We mapped the Tallinn area using the Estonian database and analysed herb rich grasslands. The product has a lot of potential, for example: determining amount of deforestation, desertification or to do compliance checks to see if the farmer is growing what he says he is growing. Thus eliminating all the manual checks that you'd have to do by visiting the field."

"We won the hackathon and [along with 2 other winners] pitched in front of the King of the Netherlands and President of Estonia, which was really cool!" They are continuing to work together to improve the tool further.

The hackathon was organised by Garage48, Netherlands Embassy in Estonia, Estonian Ministry of Rural Affairs and Estonian University of Life Sciences, the Netherlands Ministry of Agriculture, Nature and Food Quality, and the Estonian Chamber of Agriculture and Commerce.

Contact information/results online

<http://garage48.ee/events/garage48-tech-for-agriculture>

<https://www.farmhack.nl/results-tech4ag-hack-estonia/>

There is a video available of the pitches on [Facebook](#) 5 steps to prepare for a Hackathon: <http://garage48.org/blog/5-step-to-prepare-for-a-hackathon>

It was possible to follow the event on [Facebook](#), [Instagram](#) and [Twitter](#), hashtag #Garage48 & #TECH4AGRICULTURE



Photo credits: [GARAGE48 FOUNDATION](#)