WSIS FORUM 2018
#HackAgainstHunger

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[Geneva; 19.03.2018] 73 hackers from 33 countries join the #HackAgainstHunger in Geneva

From 18-19 March, 73 participants, 14 teams across 4 continents came together in Geneva, Switzerland, at the #HackAgainstHunger to "hack" for a Future of Sustainable Agriculture and Food. This event was co-organized by the International Telecommunication Union (ITU), Food and Agriculture Organisation (FAO), and Impact Hub Geneva. #HackAgainstHunger is part of the WSIS Forum 2018, the world's largest annual gathering of the 'ICT for development' community.

Website: https://www.itu.int/net4/wsis/forum/2018/Pages/SpecialTracks/Hackathon#intro

For 36h on Sunday and Monday, 1 teams worked day and night on a viable business model for technology solutions to help address world hunger. The teams developed innovative digital services, mobile & web applications, mainly for middle and lower-income countries, using artificial intelligence, as well as algorithms based on various datasets.

During the #HackAgainstHunger/Geneva, participants were able to (1) connect with the UN ecosystem and telecoms influencers, (2) receive operational and startup support from social entrepreneurs and business coaches for further developing their projects and (3) benefit from specific know-how and skill sets of experts from ITU and FAO to give them feedback.
All participants are invited to the High Level Segment of the WSIS Forum, on Tuesday 20 March. The winners will be able to pitch in front of a high level and multi-stakeholder audience and will be supported by ITU and FAO to further develop their project after the hackathon.

Teams presented their projects to the Jury on Monday afternoon. #HackAgainstHunger winners are:

Team name: **A-Grow** – Jamaica
Team members:
- Odain Brown
- Juleen Gentles
- Joshua Joshua
- Chinelle Miller

Team name: **McFly** – China
Team members:
- Chunjing Yao
- Gaoxiang Hu

Team name: **agroUp** – Spain/Greece/America/Germany
Team members:

- Daniel Abad Abanades
- Gorka Bravo
- Sarah Hulbert
- Rim Melake
- Sara Ollé
- Vasileios Naskos

Annexes

Context

75% of the world's poor live in rural areas and 2.5 billion people derive their livelihoods from agriculture. However, low agricultural productivity, poor transportation systems and limited policies affect their production and agriculture trade. Today, more than 800 million people worldwide are undernourished, while more than a billion tons of food never make it to the table.

This is exactly where solutions are crucially needed to develop new sustainable agricultural practices, support small-scale and family farmers and allow them equal access to land, technology and markets.

About #HackAgainstHunger

#HackAgainstHunger is a general effort by the International Telecommunication Union (ITU) and the Food and Agriculture Organisation (FAO) to identify and support innovative solutions to address challenges around food and agriculture. It includes 2 regional hackathons in Rwanda, and in Caribbean (one event in Jamaica and another one in Trinidad & Tobago), as well as a Special Track Hackathon in Geneva during the WSIS Forum 2018, the world's largest annual gathering of the 'ICT for development' community. The winning teams of the regional hackathons are being sponsored to come to the #HackAgainstHunger/Geneva.

About #HackAgainstHunger/Geneva

The 2-days sprint-like event is organised in collaboration with Impact Hub Geneva. It convenes hackers, ages 18 - 35 years old. 13 **teams developed innovative digital services, mobile & web applications, mainly for middle and lower-income countries,** using artificial intelligence, as well as algorithms based on various datasets. Find an exhaustive list of project descriptions in the annexe, defining the challenge each team is tackling as well as the solution they aim to develop.

**Participants regional distribution**
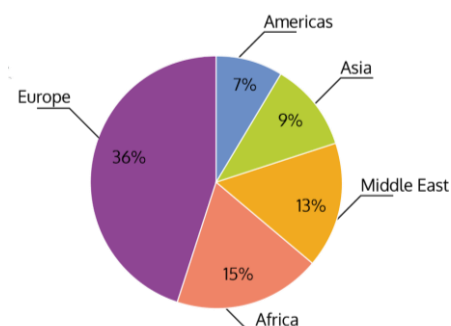
Participants nationality distribution

The hackathon has been announced in the end of December 2017. More than 240 applications were submitted, among which **80 best profiles have been selected.** The participants are coming from 33 different countries and from very diverse academic

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33 nationalities
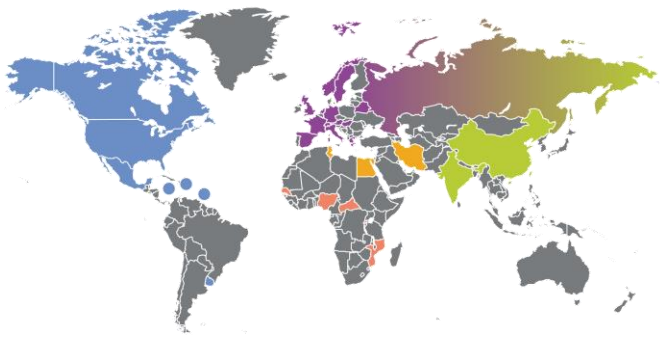
and professional backgrounds, from computer scientists, to sustainability experts, passing by Agricultural Economist, Management, Humanitarian Action and many others.

More information?

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Project descriptions of the selected teams

AgroUp | France and Switzerland | 6 team members
Challenge: How to help rural farmers with information on market prices, technological inputs, technical assistance services to improve their productivity and profitability?
Project (solution): The team is aiming to develop a user-friendly software with two key elements: precise data collection and value chain data collection.

A-Grow | Jamaica | 3 team members
Challenge: How to provide relevant information to market players to improve farming at the national level?
Project (solution): A-Grow developed a solution that allows decision makers to view farming related data in a single dashboard. The application also allows decision makers to send out messages to farmers using social media.

Biogas, see the future | China | 4 team members
Challenge: How to reduce soil pollution and ensure food safety, while boosting agricultural production and eliminate starvation?
Project (solution): "Biogas, see the future" applies academic research to develop highly efficient gas-generating accelerators to enhance biogas production and utilized biogas as a green and clean energy source.

ChangeMakers | Tunisia | 4 team members
Challenge: How to share food with those who need it and help with poverty and youth unemployment?
Project (solution): Wakalni is an app that transforms your passion for sharing food photos into actually sharing food for those who need it. First, you sign up via Facebook or Twitter and then, you visit a participating restaurant. By taking a photo of your meal with your app and posting it, the restaurant makes a donation to the Wakalnibox.

Food Vibes | Switzerland | 4 team members
Challenge: How to create a sustainable business model by reducing food waste and turn it into affordable meals?
Project (solution): Food Vibes is a local solution to collect the "ugly" fruit and vegetables not complying with the consumers' norms from farmers and create affordable and traditional meals in a food truck.

Hackon 1 | France | 3 team members
Challenge: How to use ICTs to help farmers with contacts, information and good practices?

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Project (solution): The team would like to address the problem of farmers lacking contacts and information to improve their practice of agriculture.

HackML | India | 3 team members
Challenge: How to find the optimal cropping pattern and predict market prices for farmers?
Project (solution): HackML analyses the images of agricultural lands from satellite, to find the optimal cropping pattern, and uses artificial intelligence algorithms to predict market prices.

National Seed Policy Evaluation System (NSPES) | Spain | 3 team members
Challenge: how to develop a National Seed Policy Evaluation System?
Project (solution): Our solution uses an algorithm to classify national seed policies as 'poor' 'fair' or 'adequate' based on the degree of inclusion/exclusion of the informal seed sector and the eleven key elements identified by United Nations' Food and Agriculture in the Voluntary Guide for National Seed Policy Formulation.

Oslo Met | Norway | 6 team members
Challenge: How to provide information, optimise water usage and preserve resources for farmers in rural areas?
Project (solution): The team plans to create a sensor that can sense how humid the ground is. So when they water the ground, they don't need to use too much water.

Proofchain | Nigeria | 5-6 team members
Challenge: How to ensure the availability of sustainable microfinance services for poor farmers?
Project (solution): Proofchain is a supply chain and fund management platform built on blockchain that drives the transparent and efficient delivery of farm inputs by tokenizing funds given by government and donor organizations for the purchase of inputs for smallholder farmers and then tracking the effective use of these tokens for the purpose for which they are given.

Pyramids Team | Egypt | 4 team members
Challenge: How to optimise the water usage for farmers?
Project (solution): The team uses data acquisition, analysis and interpretation to develop a framework to help new farmers to assess the water quality for their farm.

Swiss Cheese | Trinidad & Tobago | 3 team members
Challenge: How to use machine learning and AI to predict best price for farmers' products?
Project (solution): Foodig is a mobile app that aims to reduce food waste by offering a digital food market platform for small scale farmers, fishermen, livestock sellers, groceries and restaurants.

SwissHackingTeam | Switzerland | 8 team members
Challenge: How to use ICTs to help improve soil quality?
Project (solution): The team plans to develop an app to combine soil data and large insect data to screen for the right insect population to fertilize arid soil in a database.

Tech4Humanity | Switzerland | 3 team members
Challenge: How to help farmers recognize early symptoms of disease in plants?
Project (solution): The team uses AI image recognition to find early signs of disease in plants by training a machine learning program with the database of current known diseases, and other open data sources.

WSFS | Tunisia | 3 team members
Challenge: How to make the water usage more efficient using ICTs?
Project (solution): WSFS tackles the problem of water waste, by implementing a water supply in farming system with automatic and manual Control using mobile application, in order to guarantee the farm production quality and quantity.