Background

AgriHackathon is an annual event of PhilRice-Information Systems Division which started in 2014. It invites the ICT community, students and professionals in Central Luzon to develop innovative ideas in developing ICT products for rice farming. Several ideas and prototypes have been gathered during its first two years.

The winning entry during the 2014 Agrihackathon was a water management device called "Bathala". It monitors and controls the farm water system and sends alerts about the current field water level to farmer's mobile device. It was developed by the faculty members of Nueva Ecija University of Science and Technology (NEUST). It was adapted and funded by the FutureRice farm of PhilRice for testing and further enhancement on its stability and accuracy.


(Left) Developers of Soilmate, an app for identifying properties contained in a soil sample; (Right) The water monitoring and control system prototype installed at FutureRice farm.

The winning entry during the 2015 AgriHackathon was an Android app for soil properties identification called "Soilmate", developed by students of Central Luzon State University (CLSU). It is a mobile app version of the "Simplified Keys to Soil Series" produced by PhilRice. Using the app, farmers and extension workers can identify soil properties, color groups, and productivity of a location.

The previous AgriHackathons were sponsored by ICT companies - Smart Communications, S1 Technologies, Microsoft Philippines, PowerNet, Eqela, Freelancer, and MobilITy, among others.

Deepening our Motivation

ICT is a rapidly growing industry in the Philippines. More and more students each year are taking interest in venturing in this field. According to the information gathered from the Commission on Higher Education (CHED), there is a consistent increase of ICT graduates from 2007 to 2014. The data also shows that the number of ICT graduates in 2007 doubled in 2014. Considering this trend, it is high time to properly channel the interest of our ICT students into better opportunities that will help meet the demands of our major industries especially agriculture.

TREND OF TOTAL GRADUATES OF ICT-RELATED DEGREES FROM 2003 TO 2014
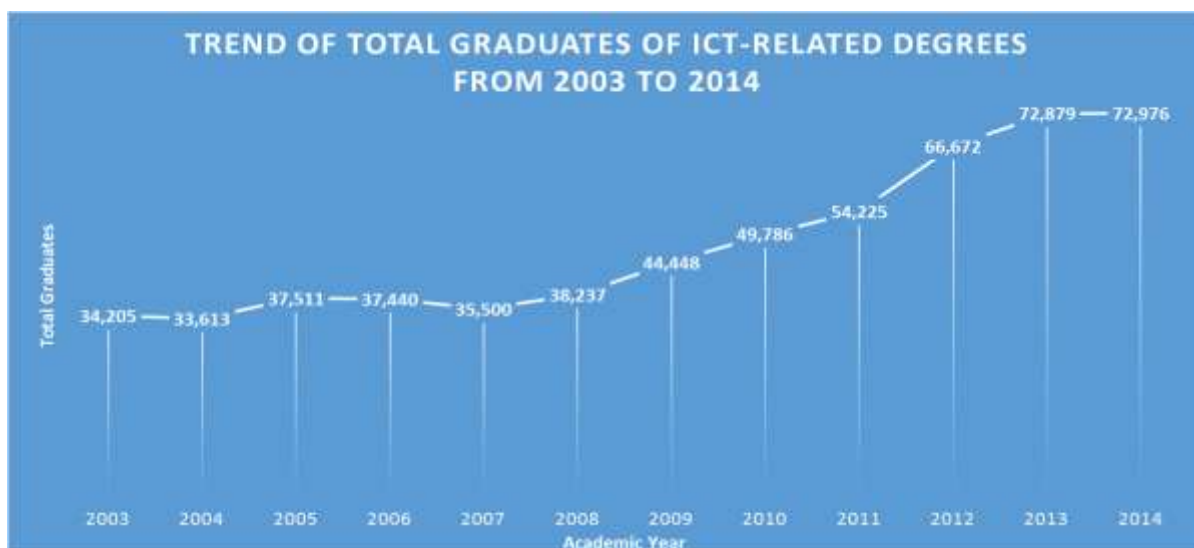
While it is important to focus on preparing the future generations of farmers, it is equally important to equip the future ICT innovators that will provide support for them. The global agricultural trend is leaning towards precision technology. Moreover, our current ICT students should be directed into following the same path, as they will be among the key industry players that will help us compete with our ASEAN neighbors in developing efficient and advanced technology innovations.

ICT in agriculture is also referred to as precision agriculture. It can range from soft (e.g. decision support tools) to hard (e.g. autonomous systems). It can vary in forms (e.g. off-the-shelf artifacts, external services, and internally customized systems) for different target users (e.g. farmers, extension workers, agribusiness people, farm managers, etc.).

Furthermore, the Philippine government thru DTI and DOST in collaboration with IdeaSpace Foundation, Inc. is spearheading the establishment of national innovation centers. These innovation hubs aims to generate ideas and grant startup financial assistance for business startups to deserving young individuals. It will also serve as a venue for government agencies and academic institutions to promote products, facilitate transfer of their R&D results, and establish connections with the investment community. This endeavor will fastrack commercialization of relevant ideas in different fields.

Currently, ICT innovations for agriculture as a business model for digital startups in the country is not yet fully explored. Based on DOST's Philippine Roadmap for Digital Startups 2015 report, most startup ideas are focused on basic and logistical needs such as communication, search, deals, jobs, community, social news, and entertainment, among other. The agricultural sector has yet to be explored. This calls for the support of ICT and agriculture-based businesses, agencies and institutions to support the development of farm technology models.

Thus, a new objective has been set for AgriHackathon.

Objective:

To equip the future ICT-AgrInnovators with knowledge, experience, and motivation to develop ICT support for agriculture by:

- Challenging and recognizing ideas, creativity, and innovation skills
- Educating ICT students about the direction of Philippine agriculture and the different opportunities in ICT for agriculture
- Promoting business startups on ICT services for agriculture