

WHY AGRITECH?

By 2050 the global population will exceed 9 billion while the consumption of food products will increase by 70%. It is impossible to satisfy such a demand without agricultural innovations. AgriTech is becoming one of the most attractive sectors for entrepreneurs and investors with AgriTech startups' capitalization having grown by almost ten times over the past five years and now exceeding \$3 billion per year.

The US remains the main market for new agricultural technologies and accounts for almost half of total investments in this sector. The Netherlands, Israel, Germany, India and China are also among the world leaders in AgriTech innovations. Ukraine, although being one of the top 10 exporters of several types of the most popular agricultural crops, cannot yet boast with an advanced AgriTech market. According to InVenture, only about 10% of Ukrainian agricultural companies use innovative technologies. At the same time, our country grows more than 70% of crop varieties traded on the world's stock exchanges. This makes Ukraine an ideal test site for agribusiness innovations.

About AGRITECH UNIT and Industry Guide

AGRITECH UNIT is a new initiative powered by the first Ukrainian innovation park UNIT.City. It is platform for cooperation with innovative startups, traditional businesses, agro holdings, corporations and experts. It's the best place for effective networking, new opportunities and creation of new solutions for digital transformation of agriculture industry in Ukraine and CEE.

How do Ukrainian agricultural innovations look like at the moment? As a part of AGRITECH UNIT the UNIT.City Team has prepared an AgriTech industry guide which will tell you about:

- What is the landscape of Ukrainian AgriTech projects?
- What innovations are being developed by the leading Ukrainian agro-holdings?
- Who is investing in Ukrainian AgriTech-startups?
- Who are the main experts of Ukrainian AgriTech market?



AGRITECH IN UKRAINE: MARKET MAP

According to AgTech Ukraine, there are about 70 AgriTech-startups in Ukraine on different stages of development and on different phases of activity. Hardware and software integrators for innovative agri-sector solutions from leading international developers are also operating on Ukrainian AgriTech-market.

The UNIT.City Innovation Park together with SmartFarming and other market participants and industry experts has created a map of Ukrainian AgriTech sector where major market players are represented. Although some of the companies work in several areas at the same time, in our map they are classified according to their main specialization.



AgriTech Market Map















Agrieye

Unique multispectral camera for remote sensing and soil analysis for SMB land farmers. It's founder and CEO is Odessa resident Andrey Sevryukov. In May 2016, the startup raised \$ 150,000 of angel investments. In the summer of 2017 it received \$200,000 from the Norwegian Katapult Accelerator and joined a three-month program there. Agrieye became one of 12 residents selected among 1000 startups from around the world. Sevryukov's company already has experience of implementing pilot projects on four continents.

Kray Technologies

A hardware startup, founded by Kyiv resident Dmitry Surdu. The company started as a volunteer project to make a scout drone for the Ukrainian army. Since the end of 2015, Kray Technologies is developing unmanned aerial vehicles for spraying fields with plant protection products and growth regulators. In 2016, the startup received a grant from the US Civilian Research and Development Foundation. In two years, Kray Technologies attracted about \$600,000 of investments from four investors, including Ukraine-based Chernovetskyi Investment Group. Kray Technologies employs 24 people.





BIOsens

An IoT startup, which develops a mobile food quality testing laboratory. It's founder and CEO is Andrey Karpyuk. In April 2017, the project won the Intercontinental Startup Battle in San Francisco, proving itself the best among 9 startups from Eastern Europe (the event was organized by Startup.Network and Hack Temple). In August 2017, Swiss Kickstart Accelerator, the largest of its kind in Europe, selected this project together with other 30 lucky startups out of 1500 applicants.

CORPORATIONS

Big Ukrainian agro-holdings are currently developing innovative in-house products, launching accelerators and cooperating with local and foreign startups. Below is a brief overview of innovations implemented by the 5 largest Ukrainian agro-holdings (in terms of their land banks).

UkrLandFarming



The company cooperates with the Bitrek, a Ukrainian telemetry equipment producer. It also has started cooperation with the US based FarmQa company and engages Ukrainian projects dealing with soil density measurement.

Kernel



This agricultural holding company funds a startup called CraftScanner, which develops a module to automatically adjust the depth of soil cultivation.

It works with several Ukrainian AgriTech projects including Pixel Solutions, Kray Technology, AeroDrone and Matrix UAV, as well as with such foreign projects as Gamaya and Geoprospectors.

Kernel is also working on its own solutions in the field of Artificial Intelligence and Big Data. Together with ELEKS, a Lviv based IT company, Kernel is developing the #DigitalAgriBusiness project which is claimed to be the world's first comprehensive intellectual system to manage agricultural production.

A Group

AgroProsperis

The company has its own software called AP Agronomist which has been in use since 2015. AgroProsperis argues that the work of its agronomists has become several times more effective with the introduction of this system.



MHP

In October 2017, this company announced the launch of an agricultural startup accelerator in partnership with Radar Tech. 10 startups will be accelerated with the winners being able to work with the MHP. Radar Tech's managing partner Yulia Poroshenko will coorditate the accelerator.

This holding is also developing its own innovations including the GeoInformation System project that collects, processes and visualize all the data related to the land bank management. The company claims that it is the largest innovation project in the world related to the management of agricultural land.

Astarta-Kiev



Since the beginning of 2017, the holding of Viktor Ivanchyck is advancing the Agro Core, a company he created in partnership with the Borsch Ventures which belongs to Eugene Utkin, a well-known Ukrainian IT businessman. Their joint project is developing an IT solution for the agricultural market.

The following can also be counted among the most innovative Ukrainian agricultural holding companies:

IMC, Svarog West Group, AgroRegion, Agricom Group, Continental Farmers Group, AgroGeneration.

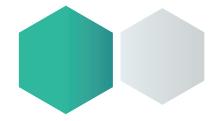


AGRITECH INVESTORS

Despite a large agricultural market, Ukraine does not have investment funds focusing solely on AgriTech startups. Some funds, nevertheless, do make pinpoint investments in this sector. Several investments in AgriTech-startups were made by the famous Ukrainian IT-businessman Evhen Utkin. In 2014 his company, KM Core, has invested \$ 1.2 million in eFarmer, a precision farming startup. And in early 2017 his fund, Borsch Ventures, created a joint company Agro Core with Viktor Ivanchyck's Astarta-Kiev. Other big agricultural holdings also help some Ukrainian startups with investments and accelerated programs (see "AgriTech Corporations").

Experts estimate that the annual volume of investments in Ukrainian AgriTech startups does not exceed \$4 M. However, there is a growing interest in Ukrainian startups on the part of foreign accelerators and private investors.

In 2017, there were some 5 deals signed in the agricultural sector. Among those worth mentioning is Agrieye who received \$200,000 from Norwegian Katapult Accelerator. Drone.ua has obtained investments from several private investors from the UK, Poland and Moldova. And in September 2017 Chernovetskyi Investment Group (CIG) announced the investment into Kray Technologies, an AgriTech hardware startup.



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