

## **SPEECH OF AGRIBUSINESS WORKING GROUP**

### **”Precision agriculture and how to sell products in the world markets”**

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In the quest for bigger yields and greater environmental protection in agriculture, arguably the most important transformation these days is the increasing use of digital technologies in “smart farming” or “Farming 4.0”.

A growing number of farmers in Asia and in Vietnam are starting to adopt digital technology and data-driven innovations.

However, for Farming 4.0 to become a reality in Vietnam, we need a dedicated joint effort between the public sector, industry players and the farming community. Above all, decision-makers and the national government need to ensure that the fundamental digital infrastructure is put in place.

Secondly, we need supportive government policies that help to address the investment gap in agriculture, particularly in times of low commodity prices.

In parallel, industry players must strive to create a competitive and innovation-friendly landscape that enables the flow of data streams and encourages fair competition at all levels.

Finally, farmers need to get ready to embrace the upcoming digital change. For instance, with retailers and consumers increasingly interested in the traceability of the food they supply and eat, the ability to collect data on exactly how a crop was grown or an animal reared could become an invaluable asset. This can help growers to deliver high-quality specialised produce, fully traceable to the field. A concerted effort to bring all the players together under “Farming 4.0” will allow products to sell competitively in the world market place. Thanks to digital technology, people are used to having a powerful computer in their pocket. Farmers now have that same power available to them, adapted to meet their particular needs. With Farming 4.0, they are able to run their farms on entirely new levels of automation, sustainability, and productivity, while retaining full control.

One third of the global population still relies on agriculture for a living. Although more advanced precision farming technologies require large upfront investments, farmers in developing countries like Vietnam are benefitting from mobile technology.

Precision agriculture means application of precise and accurate inputs at the correct time to the crop for increasing its productivity and maximizing its yields. Farmers thus obtain a return on their investment by saving on water, pesticides and fertiliser costs.

The second, larger-scale benefit of targeting inputs concerns environmental impacts. Applying the right amount of chemicals in the right place and at the right time benefits crops, soils and groundwater, and thus the entire crop cycle.

Consequently, precision agriculture has become a cornerstone of sustainable agriculture, since it respects crops, soils and farmers. Sustainable agriculture assures a continued supply of food within the ecological, economic and social limits required to sustain production in the long term.

**Precision livestock farming (PLF)** is the use of advanced technologies to optimize the contribution of each animal. Through this "per animal" approach, the farmer aims to deliver better results in livestock farming.

Although this sounds like 21st century technology, precision farming is not new. In the past, most farmers knew each of their animals by name. Moreover, a farmer could typically point out who the parents were and sum up other important characteristics.

In recent times, many farms have multiplied in scale, with highly automated processes for feeding and other tasks. Not surprisingly, farmers currently work with average values per group. Using modern information technology, farmers now can record the attributes of each animal, such as pedigree, age, reproduction, growth, health, feed conversion, carcass weight as a percentage of live weight, and meat quality. When this information is available, huge benefits can be derived.

Precision Agriculture and Precision Livestock Farming are a reality. However, many Vietnamese farmers are still operating today in the Third Industrial Revolution utilising a basic personal computer, the internet, and simple ICT, and others are still in the Second Industrial Revolution with reliance on the telephone, light bulb, and the internal combustion engine. They are a long way from understanding or utilising the benefits of the Fourth Industrial Revolution or Farming 4.0.

For more than 10,000 years people have cultivated crops using trial and error. Only recently in history, mechanisation revolutionized the countryside with machinery, and replaced horses with tractors.

Nowadays, we're witnessing a new farming revolution triggered by the adoption of staggering new technologies: satellites, high precision positioning systems, smart sensors and a range of IT applications combined with high-tech engineering and robotics.

Farming 4.0 is here.