



NEW GAME IN FARM EQUIPMENT

PRECISION FARMING IS BRINGING NEW COMPETITORS FOR FARMERS' BUSINESS, AND CALLS FOR NEW STRATEGIES

Times are hard for farm machinery makers. Amid a long price slump in agricultural commodities, they are likely to record a third straight year of poor – even declining – sales in 2016. Commodities forecasts and indicators provide little hope for any sort of upturn in the coming years. And emerging markets are likely to be a source of limited opportunity for European and North American manufacturers, at least in the short term: India's main demand, for example, is still for low-tech, domestic machines, such as those made by Tafe.

An even bigger challenge is arriving, and how farm machinery makers deal with it will decide whether or not they thrive in the longer term. The agricultural economy is on the cusp of a production revolution centered on precision farming, which will see farms making increasing use of information services, big-data analytics, and webs of sensors. This is not natural territory for agricultural equipment manufacturers, who traditionally use their superior understanding of agricultural processes to offer vehicles and maintenance services. To master the new battlefield, they must figure out a way to combine their strengths with new technology to deliver comprehensive solutions (see Exhibit 1).

They face competition from two other groups. Agrichemical players such as Monsanto have branched out into information services to help farmers make better, faster decisions. They relay images from fields to monitor pests, and use sensors to gather data on rainfall and soil conditions. Analytics then combine these with historical information, such as seeding and yields per acre. Other competitors come from the world of digital technology. Trimble, for example, integrates farm data to bring maximum effectiveness to operations such

as nutrient supply and field terracing, and links this to farm management systems.

THINK ABOUT SOLUTIONS

Machinery makers can provide services like this too, by broadening their range of technology and integrating it effectively. John Deere, for example, has added digital, seeding, and other partnerships to its in-house capabilities. Equipment manufacturers, therefore, need to think about their position in agriculture solutions – whether to act as an integrator, a supplier of equipment to another integrator, or something in between. Only a few of them will be able to offer fully integrated services on their own. Most will either be part of someone else's solution, or arrange solutions with partners that have complementary skill sets.

Putting together these alliances and groupings will call for a rapid increase of mergers and partnerships. Indeed, the sector for agriculture-related services and equipment has been alive with mergers and partnerships in recent years. Since 2000, Trimble has acquired more than 100 companies across a broad array of capabilities and sectors, including energy, logistics,

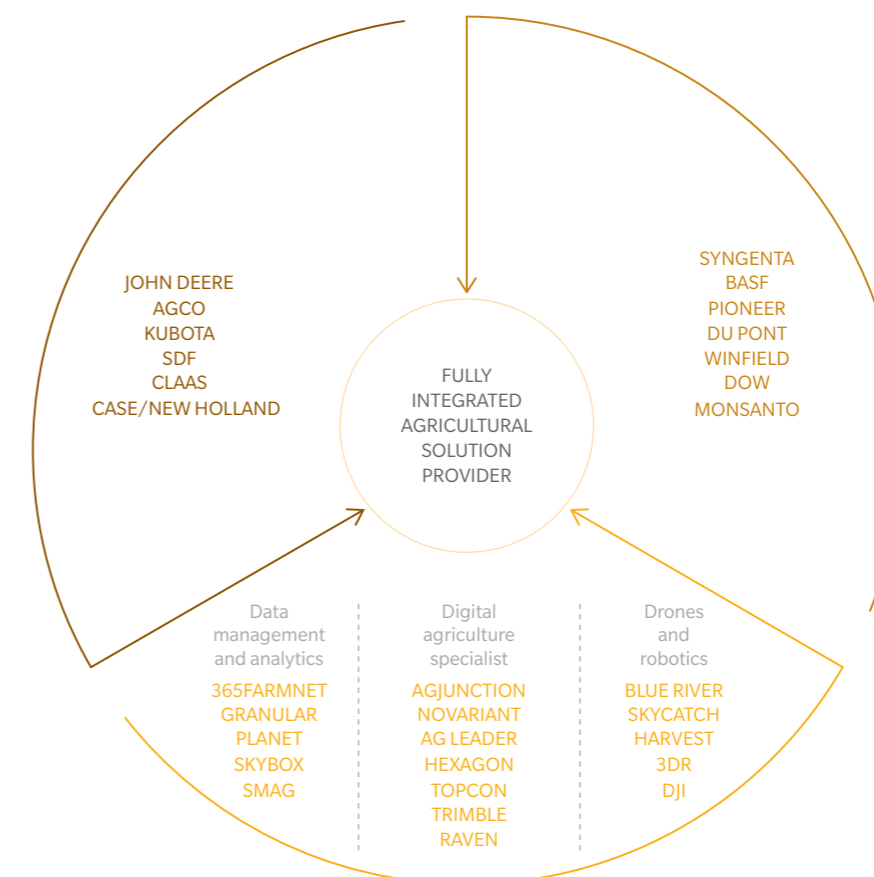
THE AGRICULTURAL ECONOMY IS ON THE CUSP OF A PRODUCTION REVOLUTION CENTERED ON PRECISION FARMING



Exhibit 1: New players, new strategies
Digital management systems mean change for traditional makers of farm machinery

PLAYERS WITH DIFFERENT BACKGROUND FIGHT FOR THE POLE POSITION FOR INTEGRATED SOLUTIONS

AGRICULTURAL EQUIPMENT OEMS	TECH PLAYERS	AGRICULTURAL CHEMICALS
<ul style="list-style-type: none"> • Most competitors favor an open approach leveraging partnerships, with open API • Only selected players have developed a controlled and closed solution, relying on in-house capabilities and only selected partnerships 	<ul style="list-style-type: none"> • Consisting of original tech providers who have widely developed partnerships with OEMs and gained agricultural know-how • New tech players including many startups 	<ul style="list-style-type: none"> • Besides agrochemicals, offer cloud and software-based prescription services to farmers, mainly through acquisitions and partnerships



Source: Oliver Wyman analysis

construction – and, of course, agriculture. In 2013, Monsanto bought a digital startup called The Climate Corporation, which makes a platform for precision farming solutions.

Most equipment makers are already moving in this direction, but others will have to learn to adapt. They have been the farmer's ultimate partner for decades: A strong aftersales network, product

reliability, and knowledge of farm processes will remain strengths – but only as part of integrated farming solutions.

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