

human resourcefulness
globally delivered



Digital Disruption in the Ag/Food industry

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○ April 4, 2017

Agenda

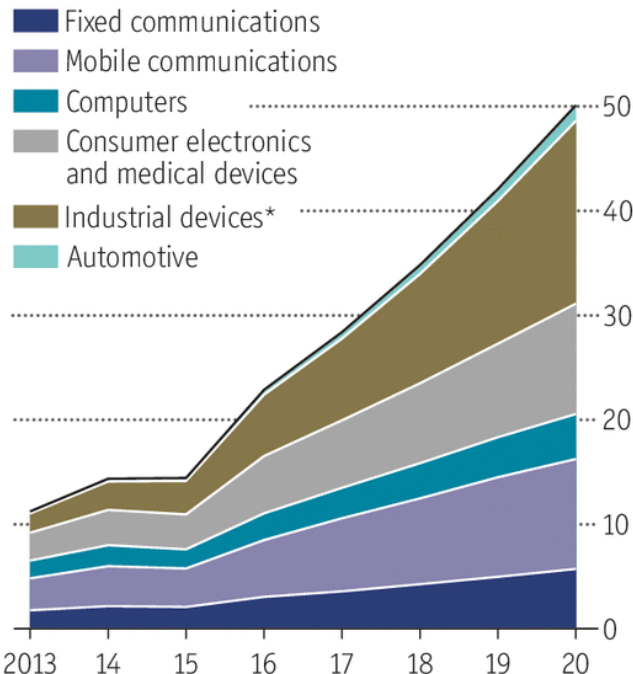
- 1 The Digital Disruption context
- 2 Implications for the Ag/Food Industry
- 3 Disruptor examples

Digital disruption is believed to trigger billions in efficiency and quality improvements

The 50 billion question

5

Worldwide number of internet-connected devices, forecast, bn

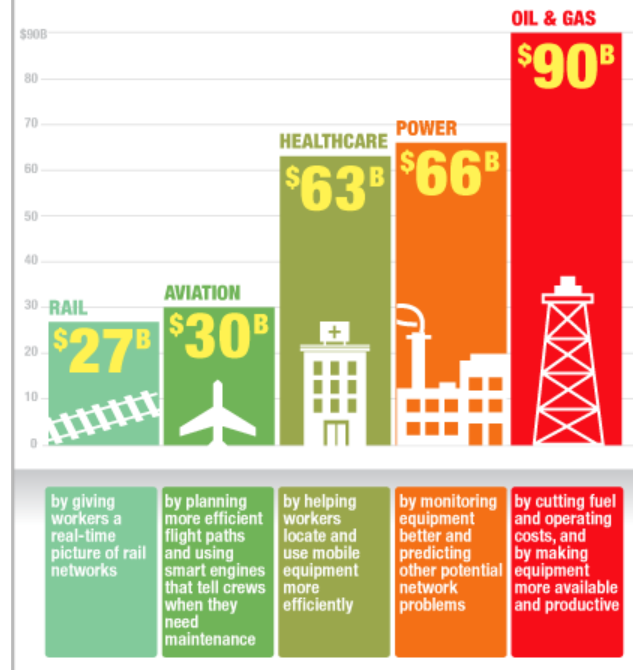


Source: Cisco

*Includes military and aerospace

HOW MUCH COULD WE SAVE WITH CONNECTED MACHINES?

A **1%** improvement in efficiency in these five industries could add up to **\$276 Billion** over 15 years



Similarly, even a small reduction in Ag/Food chain inefficiencies would generate tremendous value



Farm Services

Produce more grains, fruits, vegetables with less

\$2.5 Trillion



Agribusiness

Sustainable Seed, Fertilizer, Crop Protection, Processing, Equipment

\$1.4 Trillion



Consumer Goods

Address Global Consumer Sustainable Product Demands

\$1.3 Trillion



Financial Services

Model Profit of Land Investment (\$45B) & Commodity Trading (\$33B)

\$78 Billion



Insurance & Sustainability

Factor Climate Risk of Global Insurance Premiums

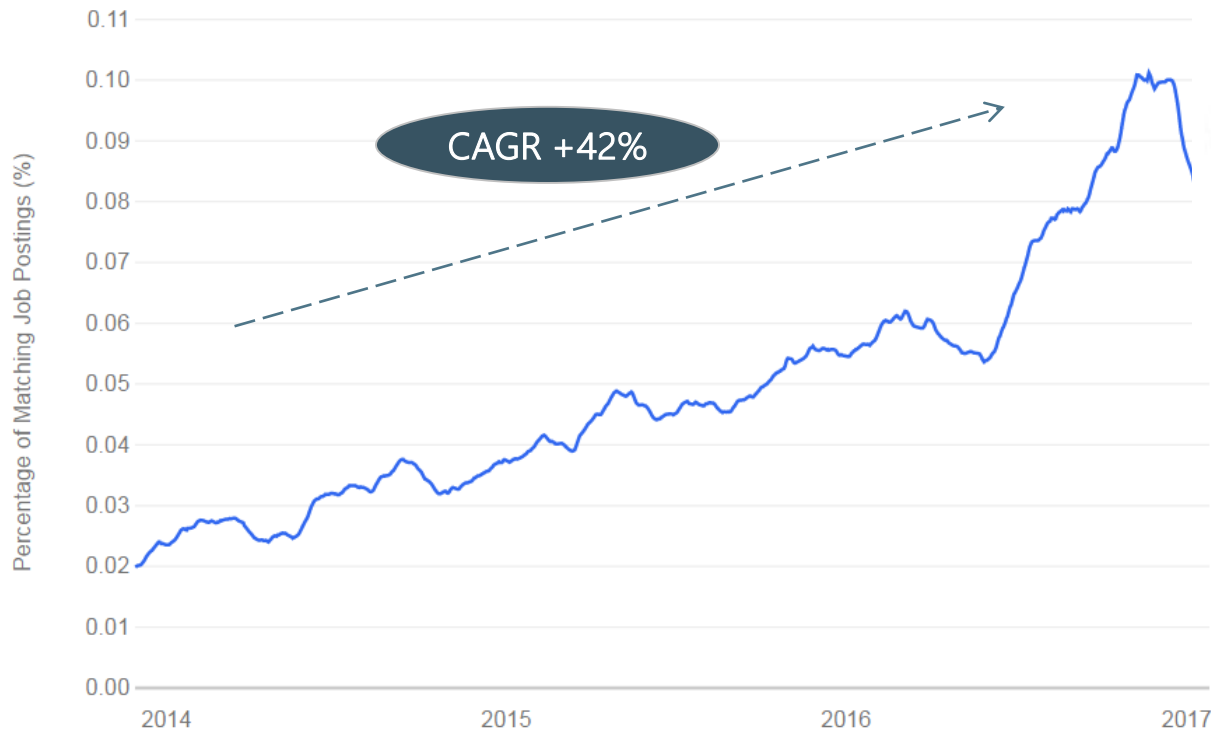
\$30 Billion

\$5.3 Trillion

With margins in the 5-15% range, the industry generates ~\$500bn in profits

But: finding the right data expert is a *rocket science* task,
particularly in the Ag industry

"Data Scientist" Job Trends



U.S. will face a
50-60% gap
of deep analytic talent
by 2018¹

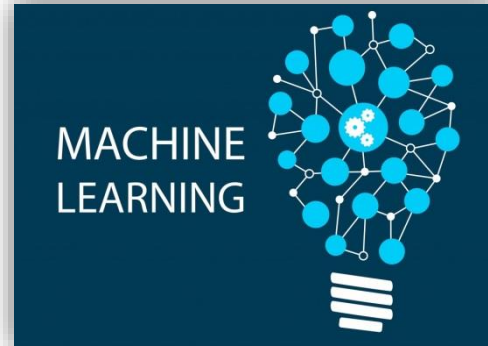
Source: graph: <http://www.indeed.com/jobtrends/q-%22Data-Scientist%22.html>;

1) McKinsey 2) Zion Market Research

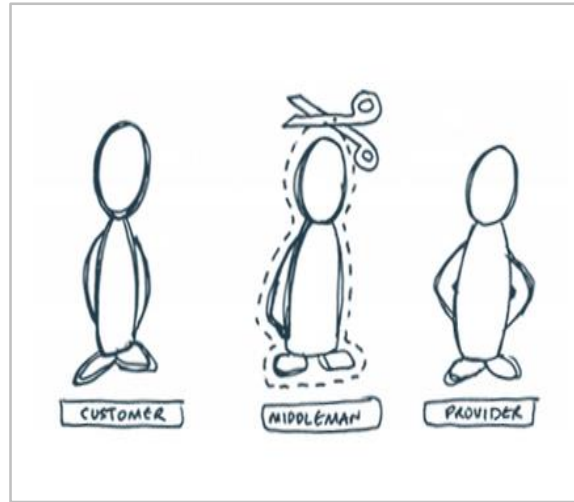
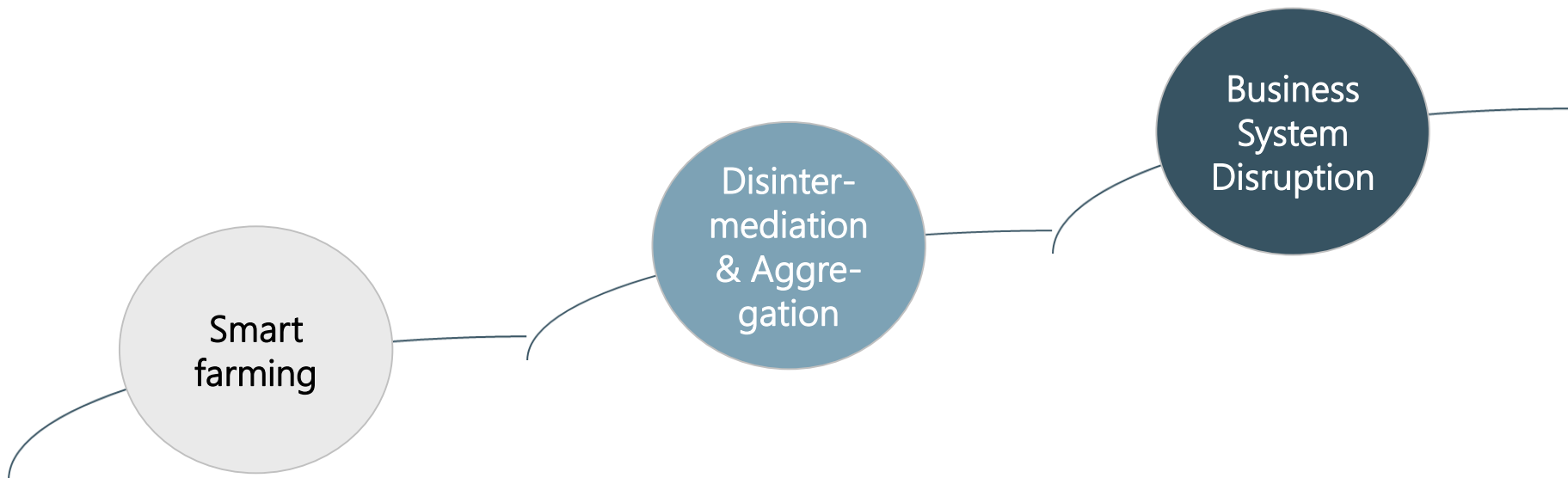
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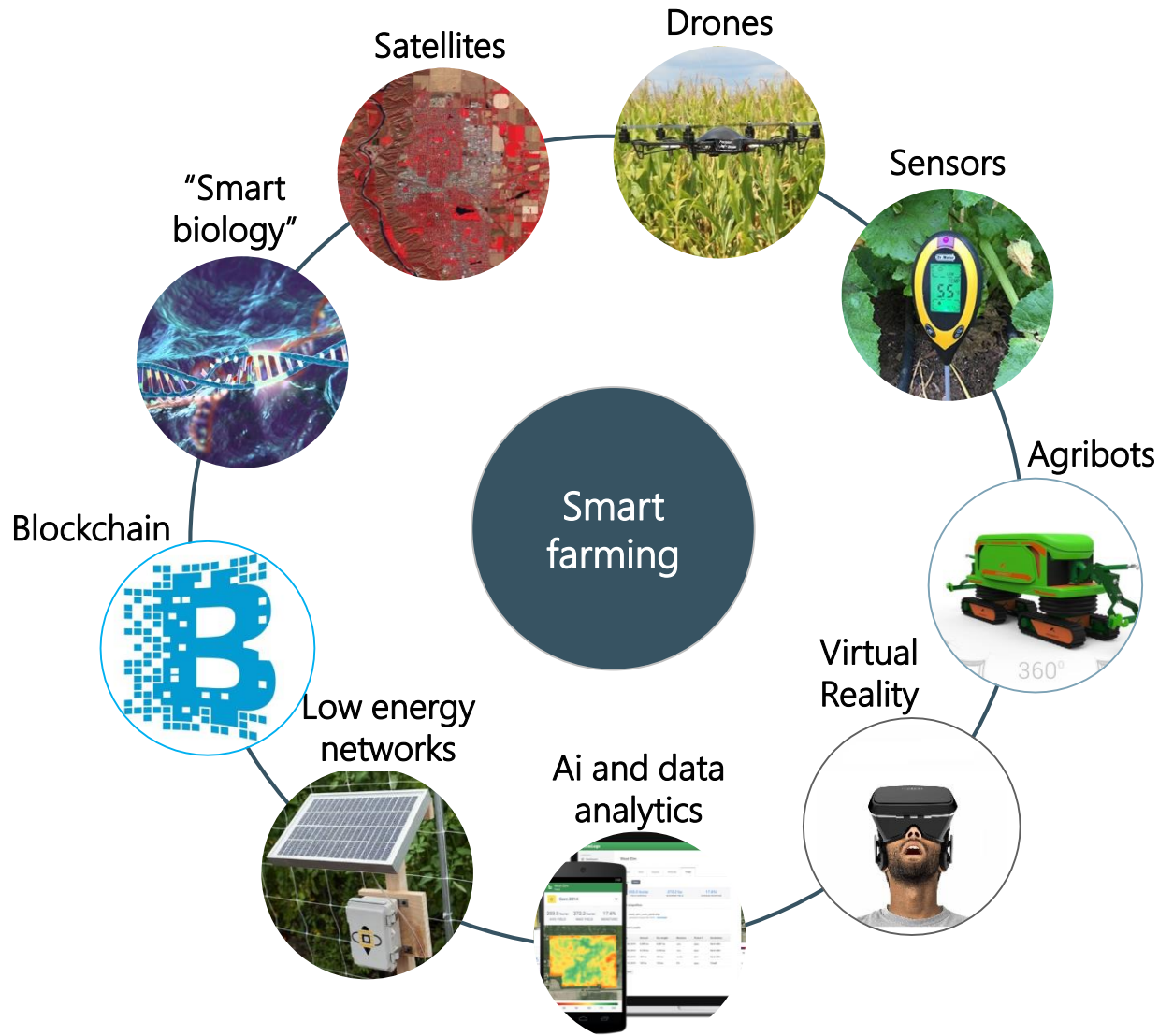
Combining Big Data, Machine Learning & Social Media enables companies to *legally* create “Nuggets of Ag Alpha”



Digitization will have a major impact on the Ag/Food chain, affecting growers but also all other players



Smart farming will change the way growers operate, but its speed of adoption and scale of impact might be limited



Source: a-connect analysis

Digital Disruption in the Ag/Food Industry

A number of companies have emerged that use technology as a means to disrupt the ag value chain and reduce inefficiencies



Low profits, little hope: lack of trust

Commodity
prices new
normal

Input price
increases

Low
transparency on
farm efficiency

Digital disruptors - examples

indigo

FARMERSSM
BUSINESS NETWORK

CIBO
TECHNOLOGIES

good
eggs

YAGRO

APOLLO
AGRICULTURE

Digital permeates the physical world

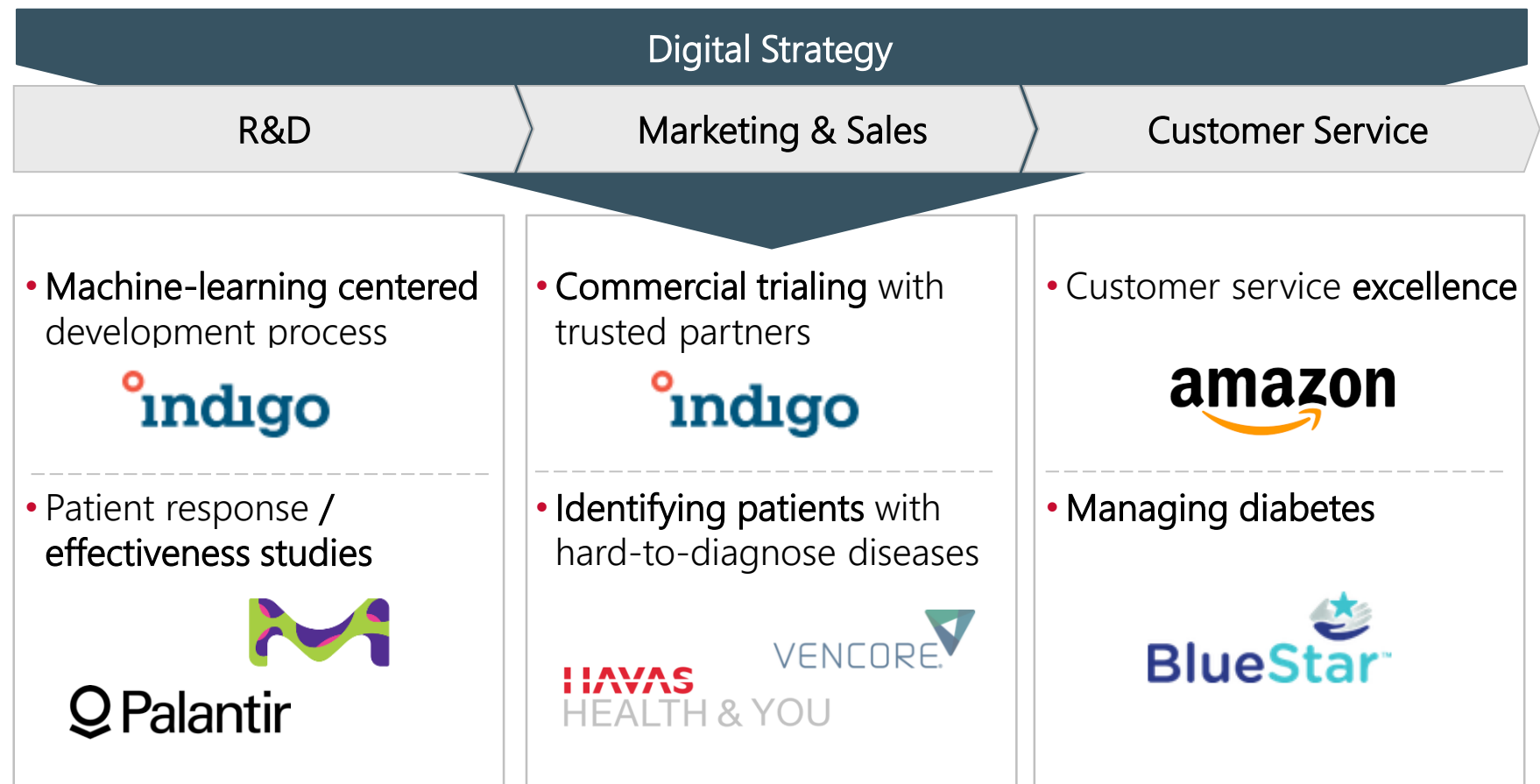
Virtual reality

Social
Media

Unlimited
transparency

Source: Wall Street Journal, Fortune.com, company websites,
a-connect analysis

Digitization affects all business functions: similar to pharma, new business systems will arise



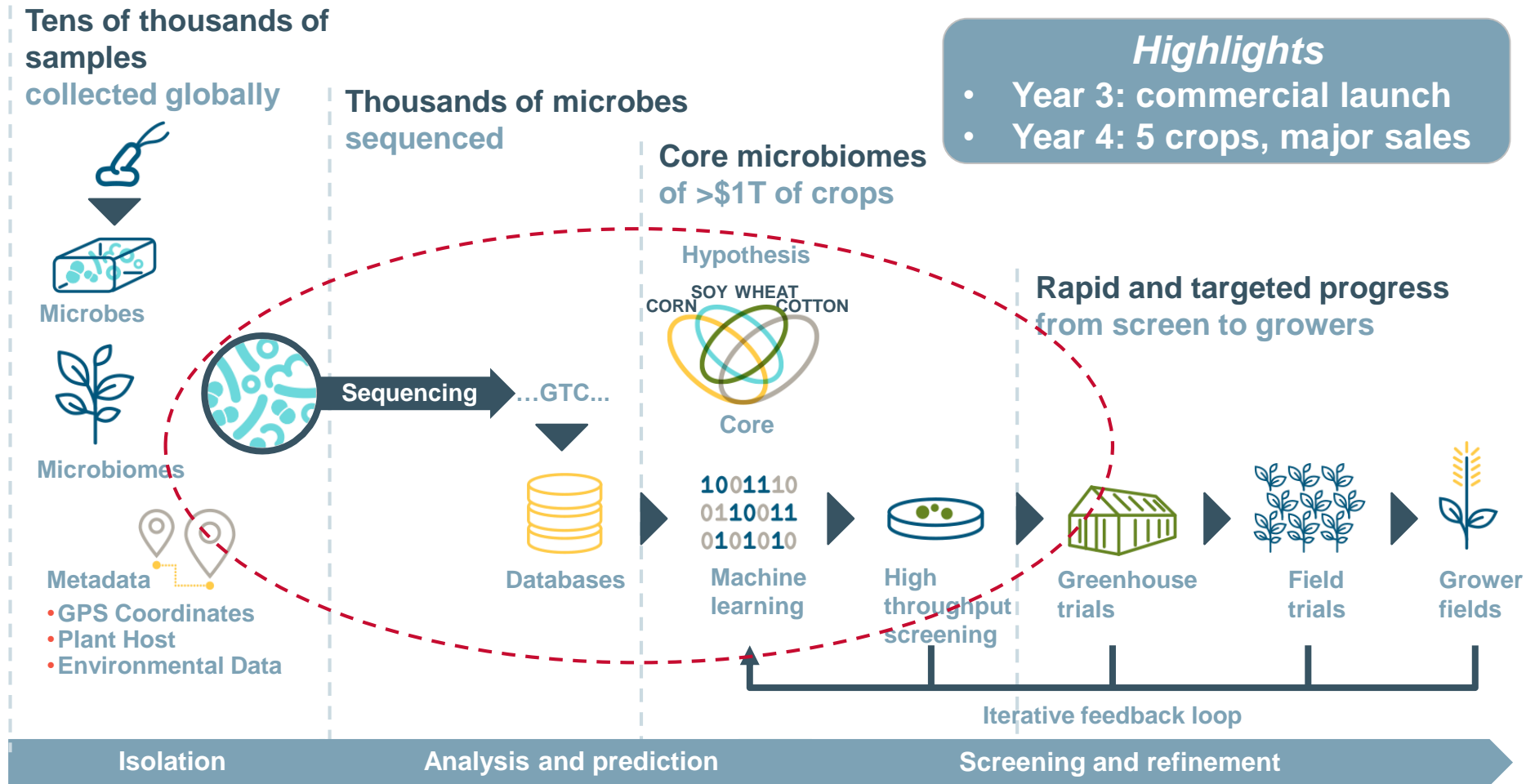
Source: a-connect analysis

Digital Disruption in the Ag/Food Industry

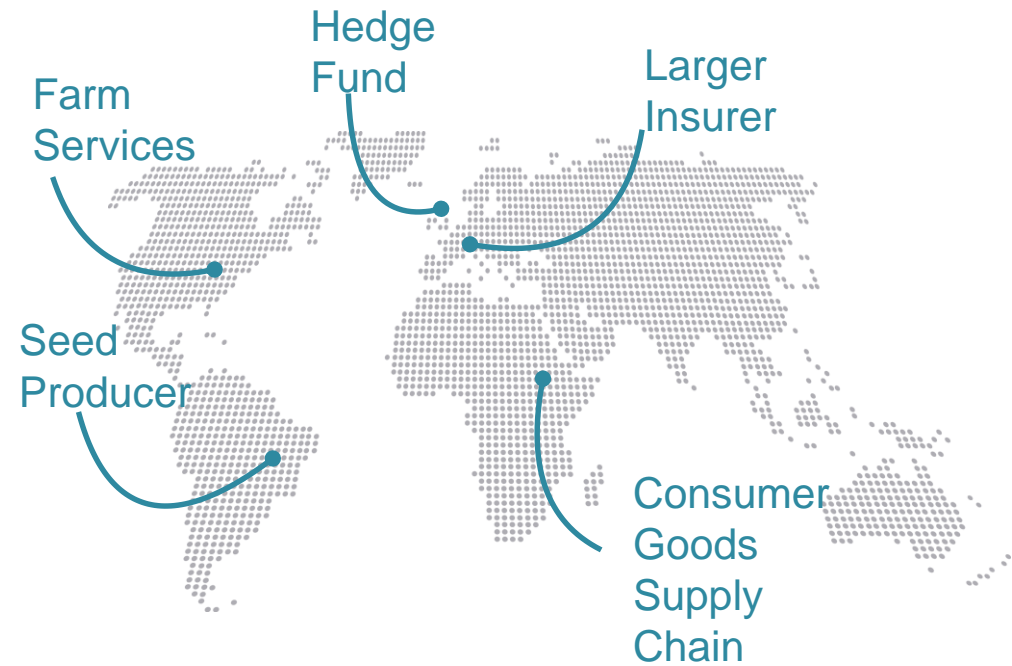
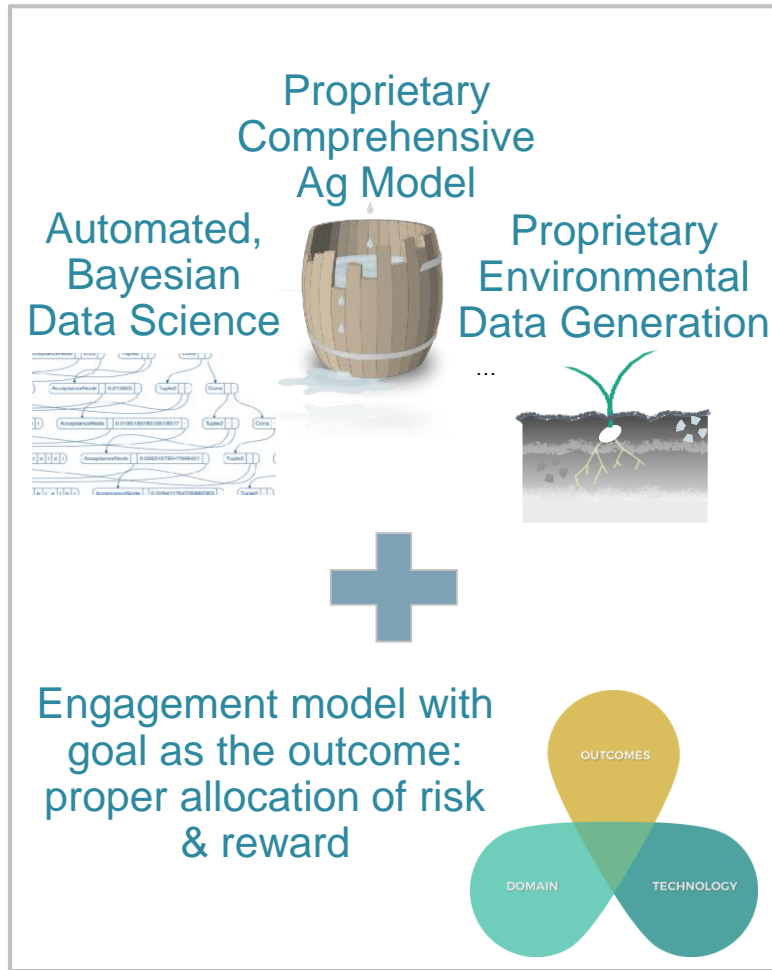
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Indigo develops microbiome based products through a “digital R&D platform”: 5x faster to market, 10-30x lower cost



The CiBO tech stack plus its outcome-based model creates breakthrough value across crops & across global industries



Digitization will have a major impact on the Ag/Food chain: the biggest impact might be *beyond the farm*

