



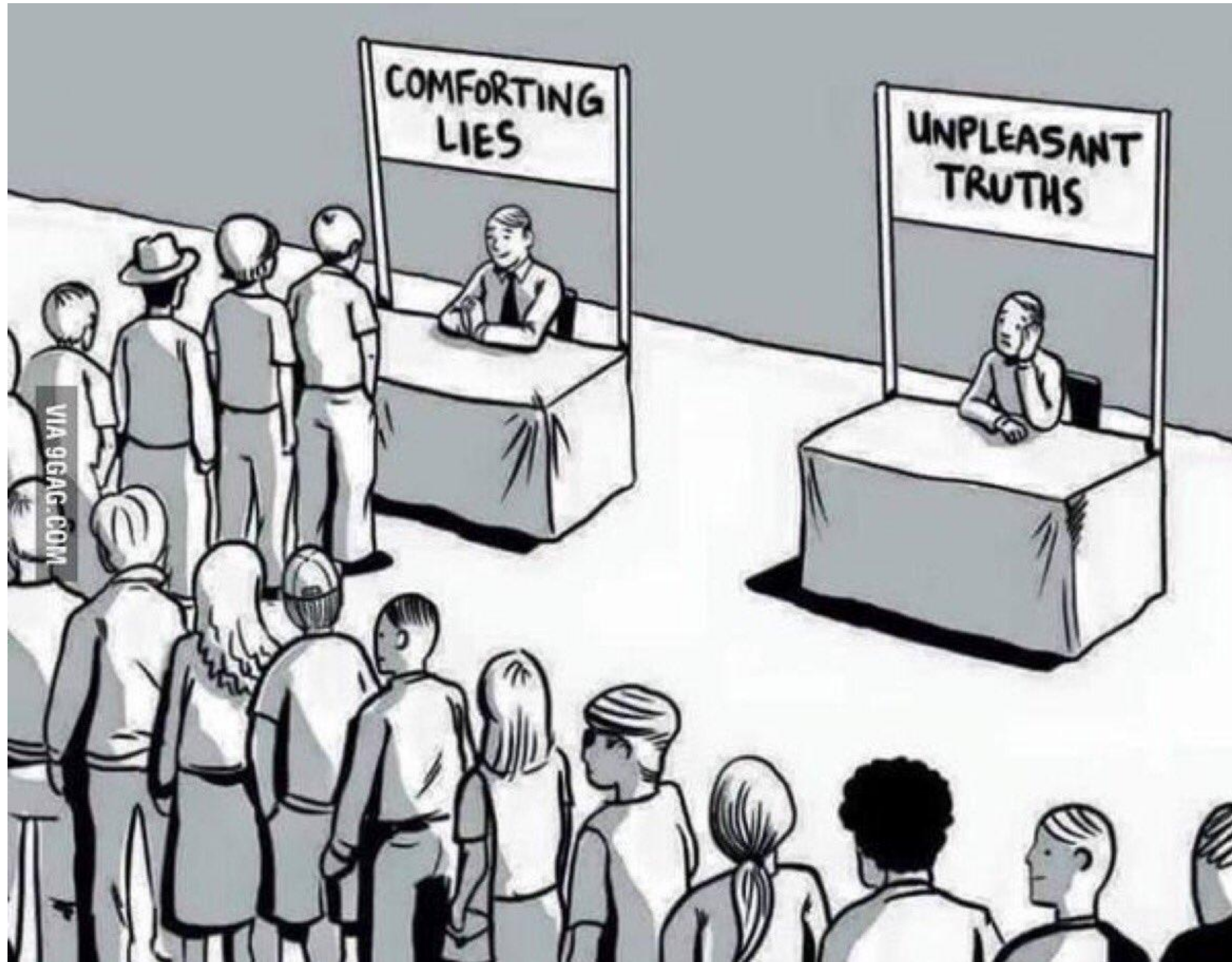
# Come individuare le proprie potenzialità e le proprie carenze: un approccio a check list

22 Marzo 2018

# Premessa essenziale

- Industria 4.0 è un tema intrinsecamente multidisciplinare.
- Richiede quindi multidisciplinarietà in tutti gli aspetti:
  - Competenze
  - Professionalità
  - Governance





Industria 4.0 è un concetto  
ricorsivo e pervasivo



Prodotto intelligente,  
costruito in modo intelligente,  
per creare processi produttivi  
intelligenti e predittivi,  
basati su dati in tempo reale provenienti  
da tutta l'azienda



Production real time monitoring is crucial





Industria 4.0 è un ecosistema,  
dentro e fuori l'azienda

## Industry 4.0 Application Services



Management  
& Operation Control



Mobile  
Apps



Strategic  
Dashboard



## I4.0 Ecosystem Platform

### Logistic & Delivery



Corporate  
systems



Vehicles



Warehouse



AGV / Drones

### Design & Production



Corporate  
systems



Machines



PC and Devices



Smart  
Devices/Tools for  
Operators



Sensors

### Services



Assistance &  
support



Maintenance



Third-parties  
network

### Produced Products





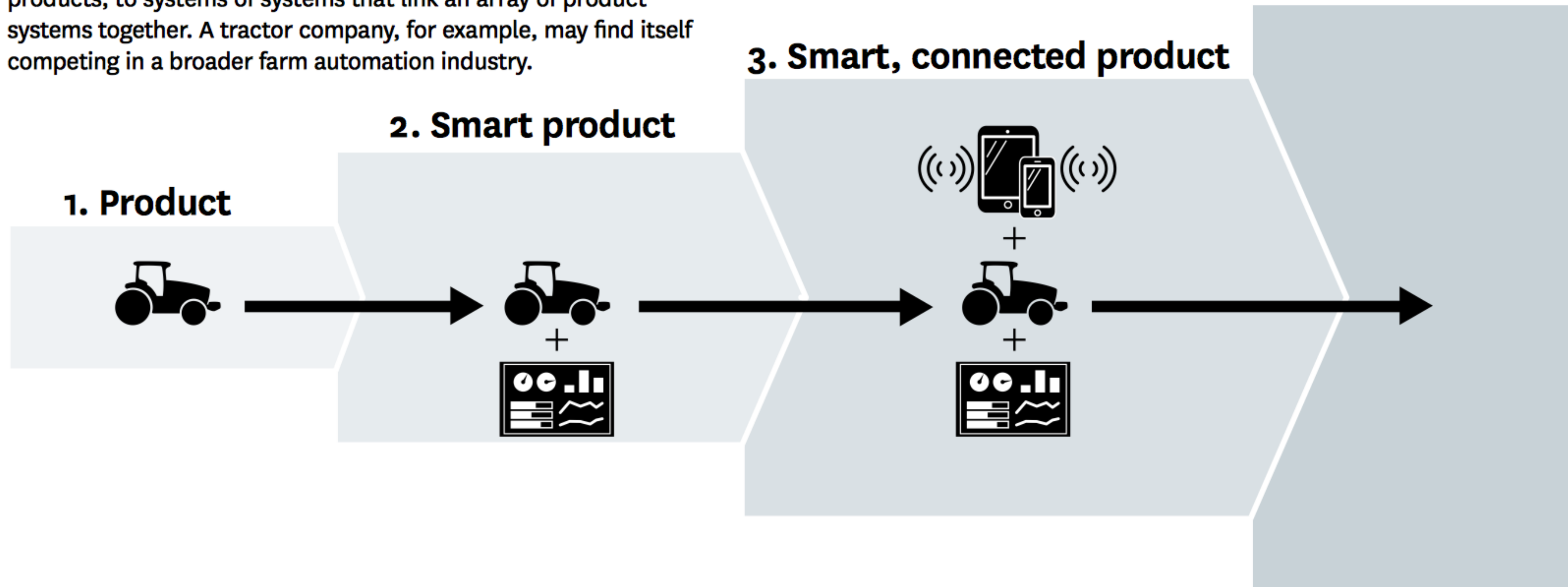
Siamo pronti???

# Le 6 dimensioni della trasformazione

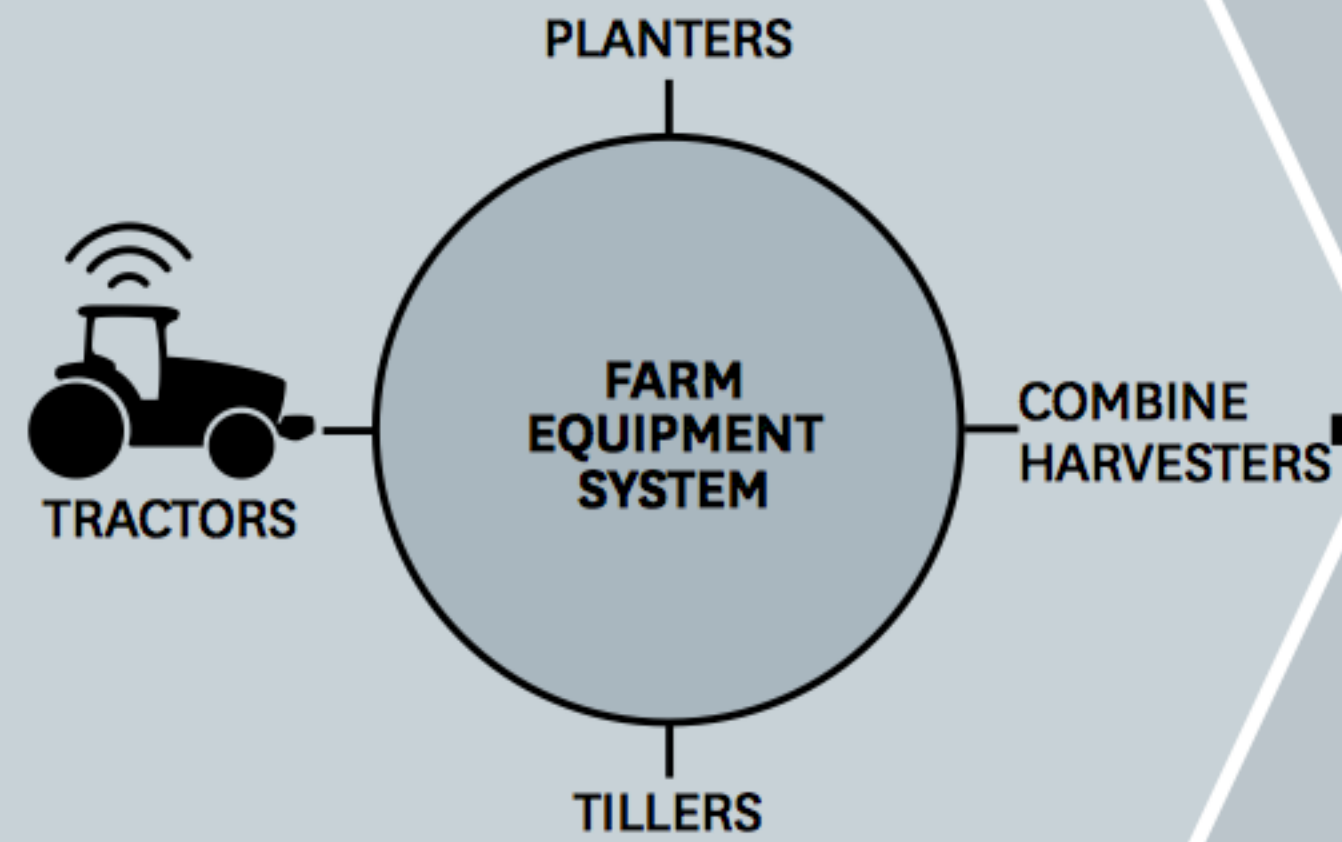
- ✓ PRODOTTI INTELLIGENTI
- ✓ PROCESSI INTELLIGENTI
- ✓ FABBRICA INTELLIGENTE
- ✓ FILIERA INTELLIGENTE
- ✓ STRATEGIA e ORGANIZZAZIONE
- ✓ NUOVI SERVIZI ABILITATI DALLA DIGITALIZZAZIONE



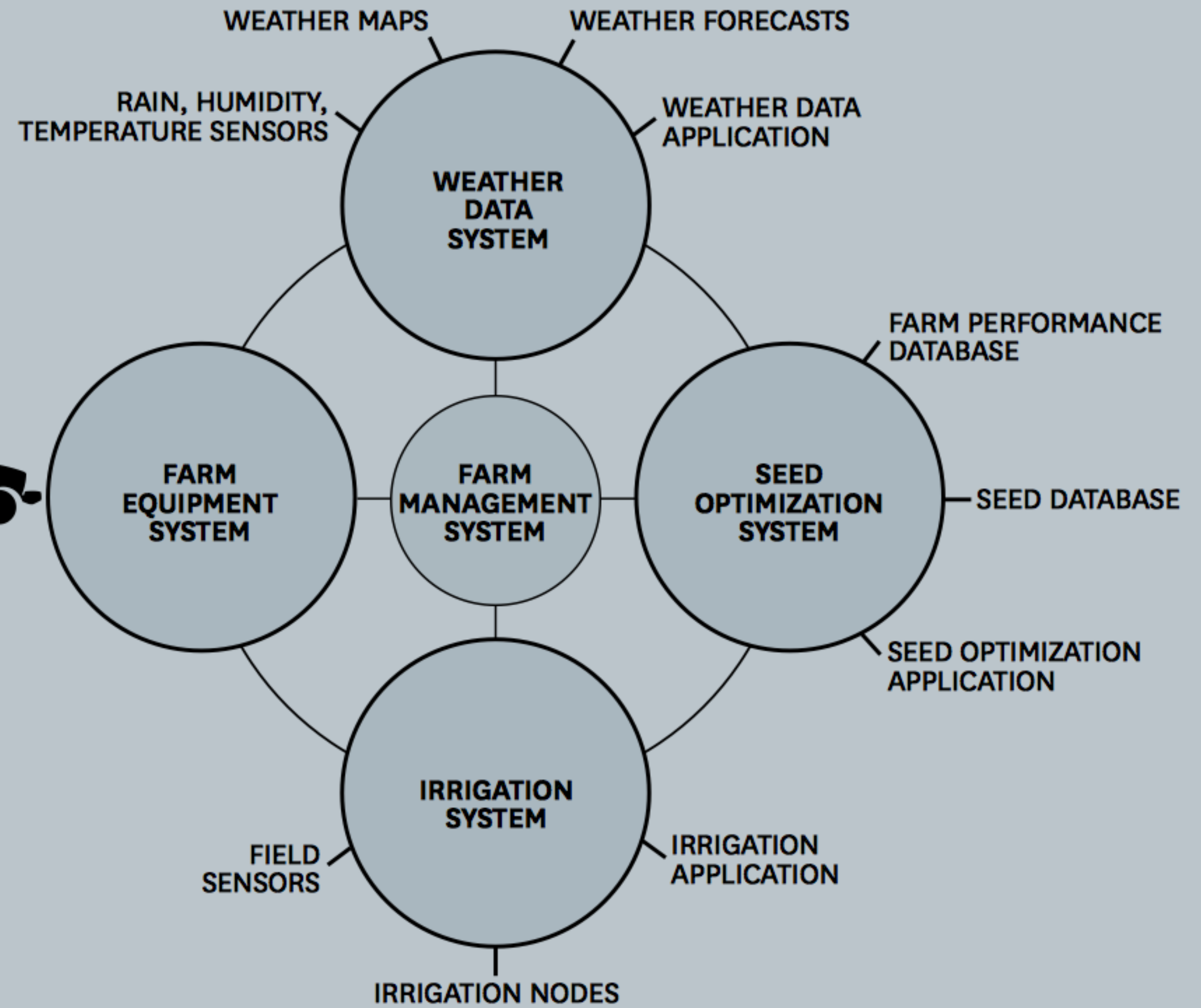
The increasing capabilities of smart, connected products not only reshape competition within industries but expand industry boundaries. This occurs as the basis of competition shifts from discrete products, to product systems consisting of closely related products, to systems of systems that link an array of product systems together. A tractor company, for example, may find itself competing in a broader farm automation industry.



## 4. Product system



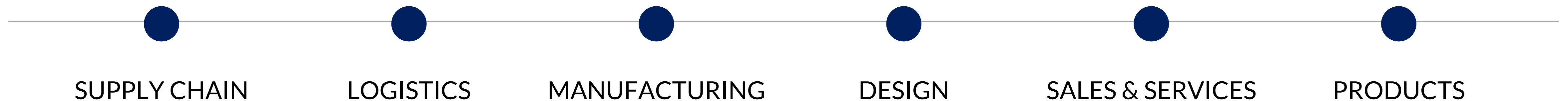
## 5. System of systems





# Cosa serve?

# Serve un ripensamento totale e profondo dell'azienda





# Can the CFO Predict ROI of Digitalization in Manufacturing?

Mark Humphlett, Director of Industry and Solution Strategy, Infor  
Oct 12, 2016

The digital transformation hitting manufacturing is still in its early stages, with chief financial officers being asked to make investments in new technologies without the data-rich projections on ROI they are used to. This first installment of a three-part series on how digitalization is impacting specific roles in manufacturing starts with the CFO.



The Industry 4.0 revolution can't happen without funding. Investments in sensor-based technology, modern ERP solutions, Big Data analytics, and cloud deployment are among the essential technologies manufacturers need in order to jump into the arena.

Asking the manufacturing CFO to authorize major spending for a digital transformation project without ROI predictions is like asking a pilot to jump from a plane without a parachute. It's crazy. And not going to happen easily.

Yet this is exactly what is happening in manufacturing plants today. The visionaries of the enterprise, often in the corner executive office, are turning to their financial departments for support of major investments in technology, sometimes both hardware and software. The facts to back promises of Return on

Investment, in many cases, just aren't there yet. The digital transformation that we know will hit manufacturing is still in early stages, generating plenty of optimism but dribbles of documented use-case data.

So, today, when the CFO says, "Show me the proof. Show me what we will gain and how long it will take us to recover our initial investment," the response is often a shrug of shoulders or a collection of articles by industry experts making projections. Volumes of forecasts are published on this topic as industry pundits predict everything from how many devices will be Internet-connected to how much will be saved by keeping internal assets running without unscheduled shutdowns.

This revolution can't happen without funding. Investments in sensor-based technology, modern ERP solutions, Big Data analytics, and cloud deployment are among the essential technologies manufacturers need in order to jump into the arena.

Early adopters are making bold assumptions and willing to bear risks in exchange for being first to own a market or claim a target market. "While this digital transformation of the \$10-trillion-plus global manufacturing sector will play out over a decade or more, pioneers are moving to drive bottom-line and top-line impact in the near term," says a [McKinsey report](#).

CFOs can find the success stories they need in order to invest confidently. Sometimes, they have to look to related industries or the massive companies with deep pockets, but the results are there. For example, Boeing developed its two most recent airframes, for the 777 and 787, using all-virtual design, reducing time to market by more than 50%. And, at innovative fashion retailer, Zara, 10 staff members can now update a store's inventory in a couple of hours—work that used to take 40 employees more than 5 hours.

Saving time is just the beginning. Creating loyalty among customers through better service, forging a competitive edge through innovated product launches, and devising new revenue streams around data and services will also bring value to the organization. Indeed, some factors, such as customer loyalty, are hard to assign a dollar value to. This leads to hard-to-verify facts with sky-high projections.

"The [World Economic Forum](#) estimates that "the combined value—to society and industry—of digital transformation across industries is upwards of \$100 trillion over the next 10 years."

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Will the CFO of a manufacturing plant ever be totally at ease with investing in disruptive technologies that promise to shake up the enterprises' financial and IT world? Perhaps not. Perhaps, yes. For those trying to persuade the company's CFO to take a leap of faith, the example of Uber is persuasive.

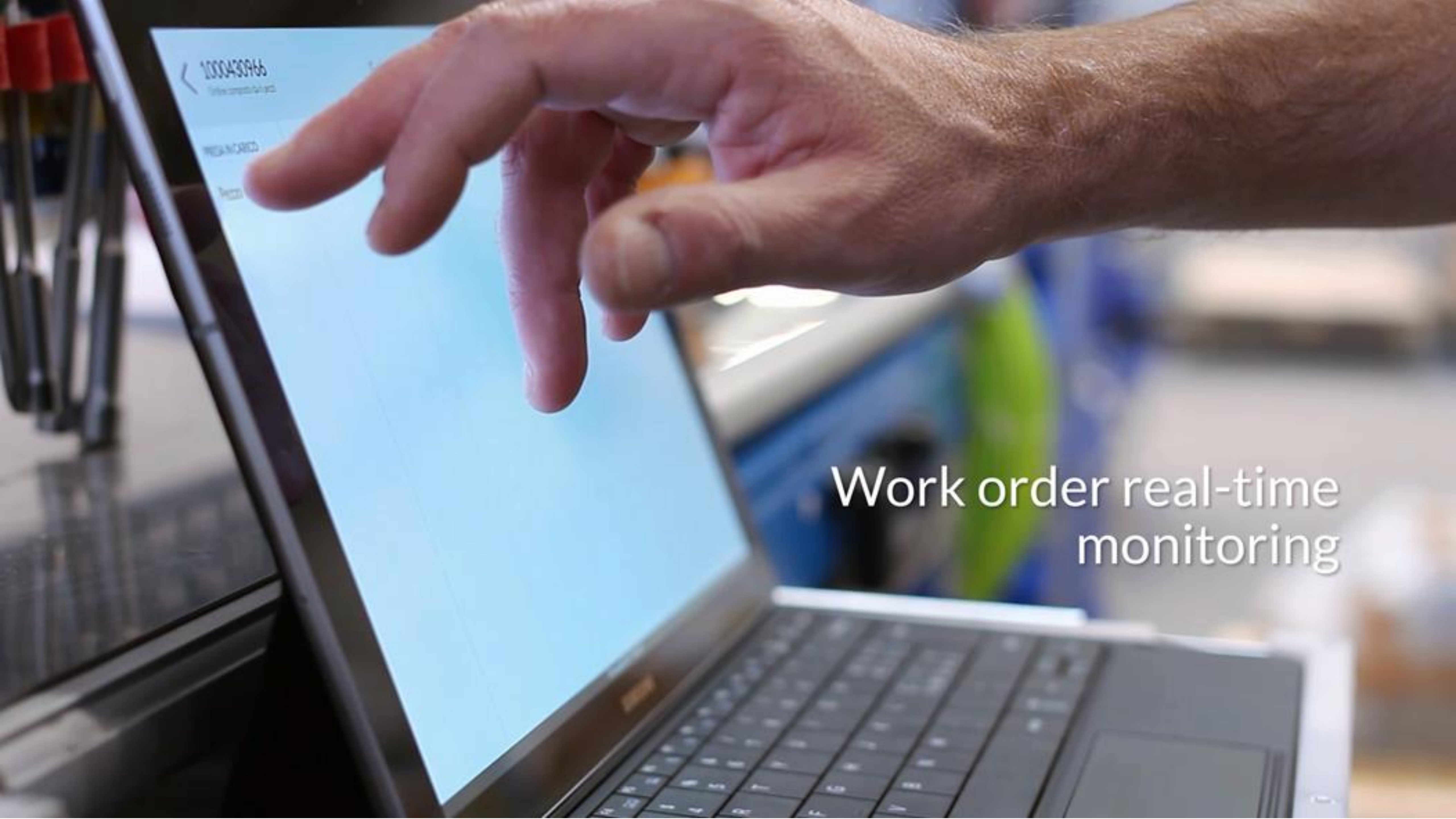
Uber didn't have a lot of historical, ROI data to back up its initial launch, because there was no company exactly like it. [The New York Times](#) in December, 2015 reported that privately owned Uber's valuation was \$62.5 billion.

Sometimes a leap of faith pays off.



Capire quali sono i veri bisogni  
dell'azienda e dei processi e saper  
comprendere le opportunità  
derivanti

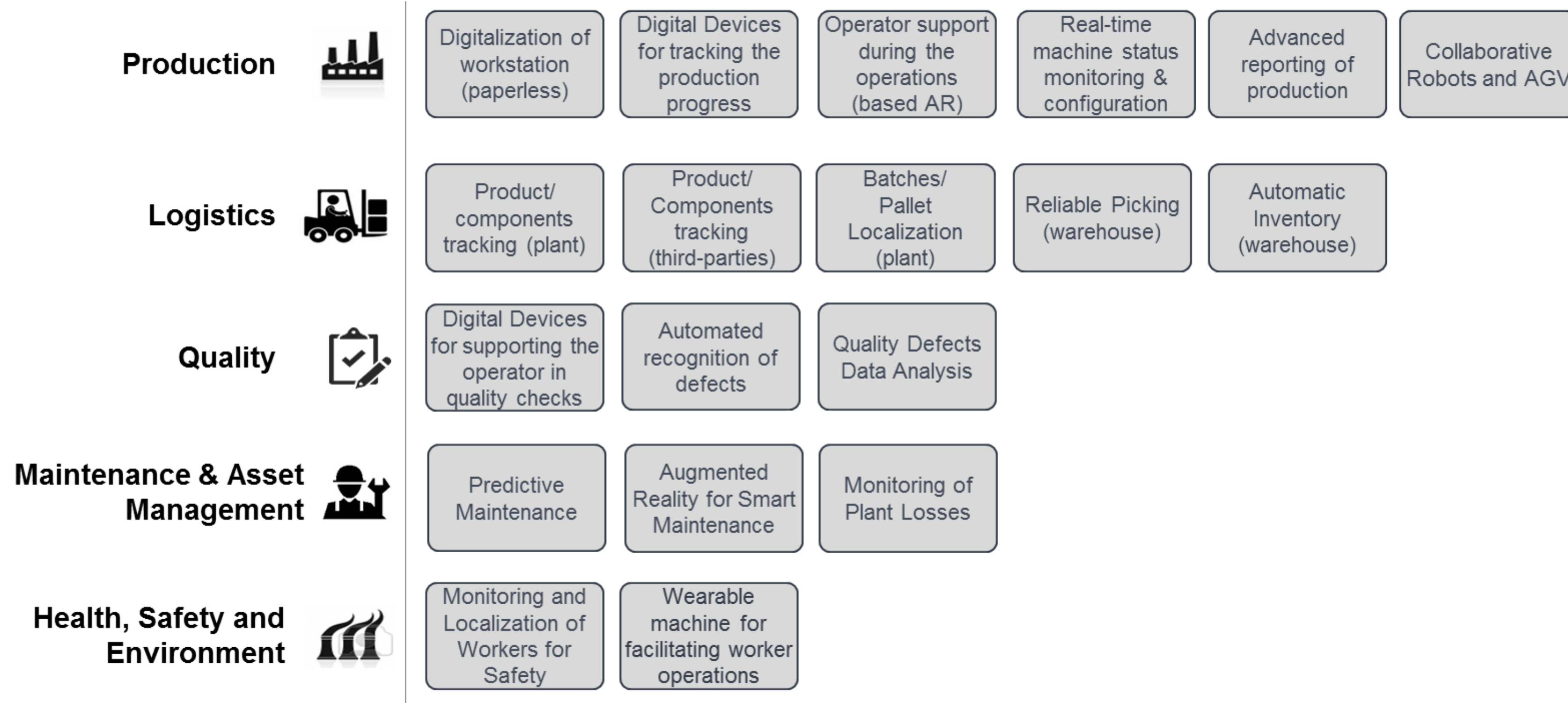




Work order real-time  
monitoring



# Gestire, coordinare e fare sinergia fra le diverse iniziative





# Servono competenze, non solo tecniche

## Dambach (Bosch): Industria4.0, nelle aziende mancano le competenze digitali

Non bastano le competenze tecniche, dice il CEO di Bosch Italia. Lo smart manufacturing richiede un nuovo modello di formazione ma anche un forte coinvolgimento della leadership aziendale. I rischi principali? "Iniziare progetti troppi complicati e darsi obiettivi irraggiungibili. La trasformazione è un percorso..."



Economyup



# E per avere successo?

- ✓ Visione di lungo periodo sia tecnologica che di business e posizionamento strategico.
- ✓ Roadmap a breve, medio, lungo.
- ✓ Capacità progettuale integrata di prodotto, processo e servizio.
- ✓ Governance adeguata con un approccio ad ecosistema.
- ✓ Apertura al mondo esterno.
- ✓ Competenze, competenze, competenze.

Grazie!