



Dall'analisi predittiva al cognitive business: l'impatto sull'industria

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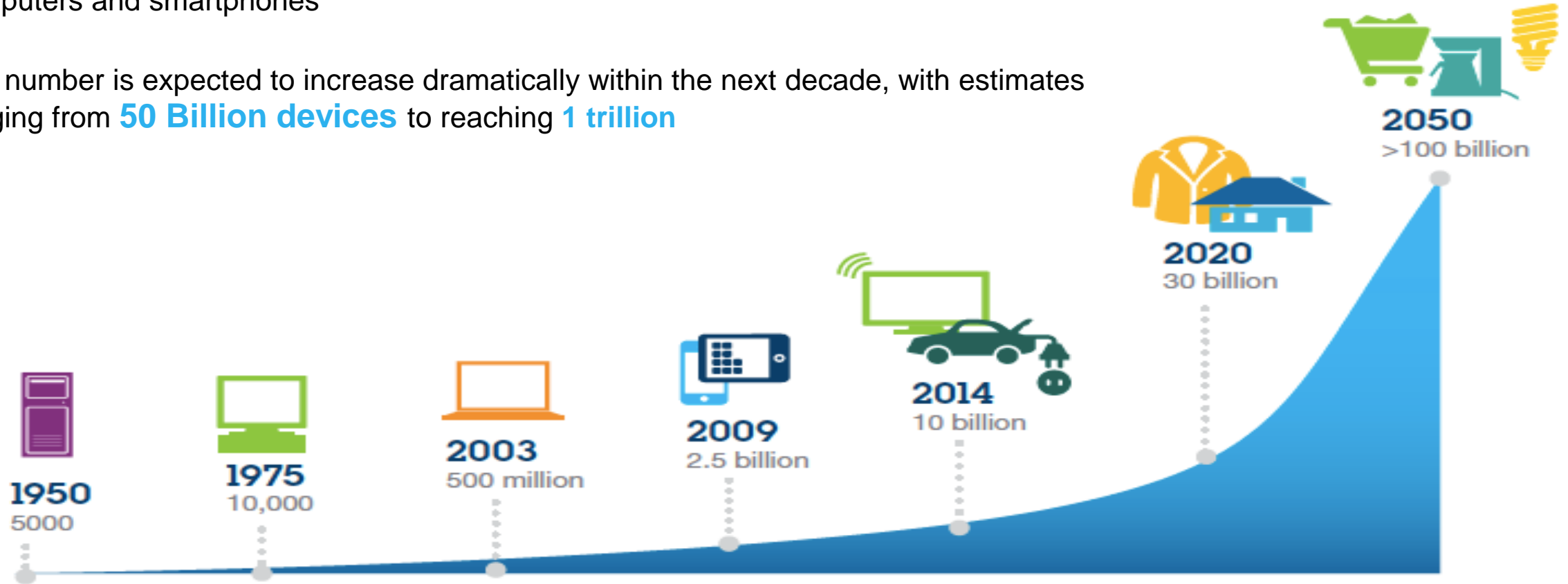
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We are on the threshold of massive explosion of connected things

9 billion devices around the world are currently connected to the Internet, including computers and smartphones

The number is expected to increase dramatically within the next decade, with estimates ranging from **50 Billion devices** to reaching **1 trillion**



The Internet of Things has the potential to create economic impact **of \$2.7 trillion to \$6.2 trillion** annually by 2025

Big Data: what is it?



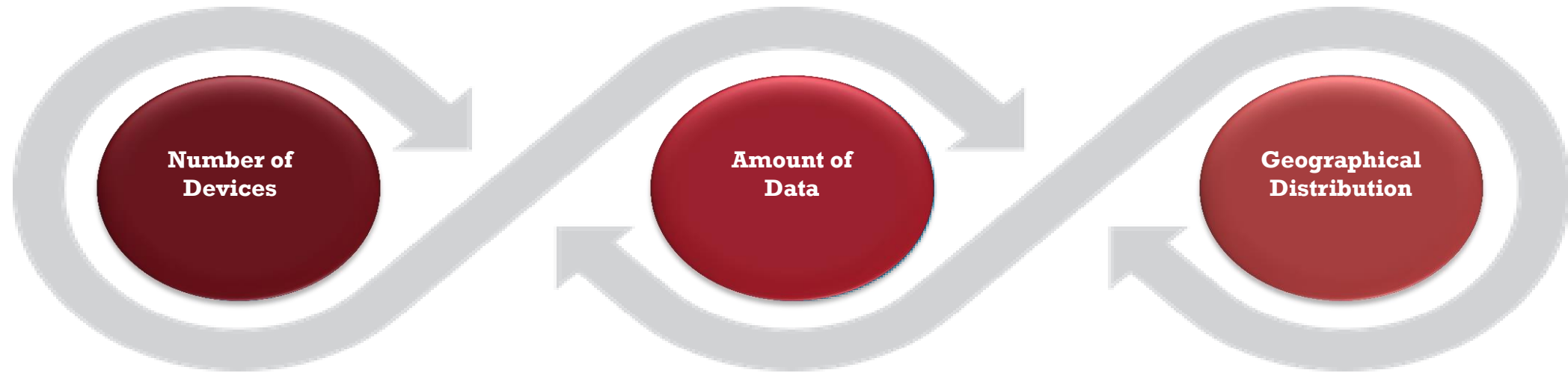
Big Data is all data.

It has become so large and varied that traditional approaches must evolve to support new types of data and analytics.





The Perfect Storm



Securely handling the combination of a **huge number of devices**, the **large amount of data** being generated by these devices that are **geographically distributed** and getting **insights** into the data is a **Perfect Storm**


“Don’t be afraid to make mistakes, just be afraid of not learning from them.” (Thomas Edison)

IoT is Driving Digital Disruption Into the Real World



Accelerating Advancements in Technology...

Are transforming every part of business...

 Advanced Analytics and Cognitive Computing

 Product Lifecycle Mgmt

 Cloud Computing

 Pervasive Connectivity

 Embedded Sensors



Improving Operations and Lowering Costs

- Predictive maintenance
- Analyze and reduce risk
- Factory automation



Creating New Products and Business Models

- Smarter, safer cars
- Health and fitness
- Home and building automation



Driving Engagement and Customer Experience

- Smarter, more profitable retail
- Engaged events and venues
- Apps that link the digital and physical world around a brand



“Data is the new Oil”



In its raw form, oil has little value. Once processed and refined, it helps power the world.

Forbes
.com

“Big Data has arrived at Seton Health Care Family, fortunately accompanied by an analytics tool that will help deal with the complexity of more than two million patient contacts a year...”

The New York Times

“At the World Economic Forum last month in Davos, Switzerland, Big Data was a marquee topic. A report by the forum, “Big Data, Big Impact,” declared data a new class of economic asset, like currency or gold.

FT FINANCIAL TIMES
World business newspaper

“Increasingly, businesses are applying analytics to social media such as Facebook and Twitter, as well as to product review websites, to try to “understand where customers are, what makes them tick and what they want”, says Deepak Advani, who heads IBM’s predictive analytics group.”

THE WALL STREET JOURNAL

“Companies are being inundated with data—from information on customer-buying habits to supply-chain efficiency. But many managers struggle to make sense of the numbers.”

Forbes
.com

“...now Watson is being put to work digesting millions of pages of research, incorporating the best clinical practices and monitoring the outcomes to assist physicians in treating cancer patients.”

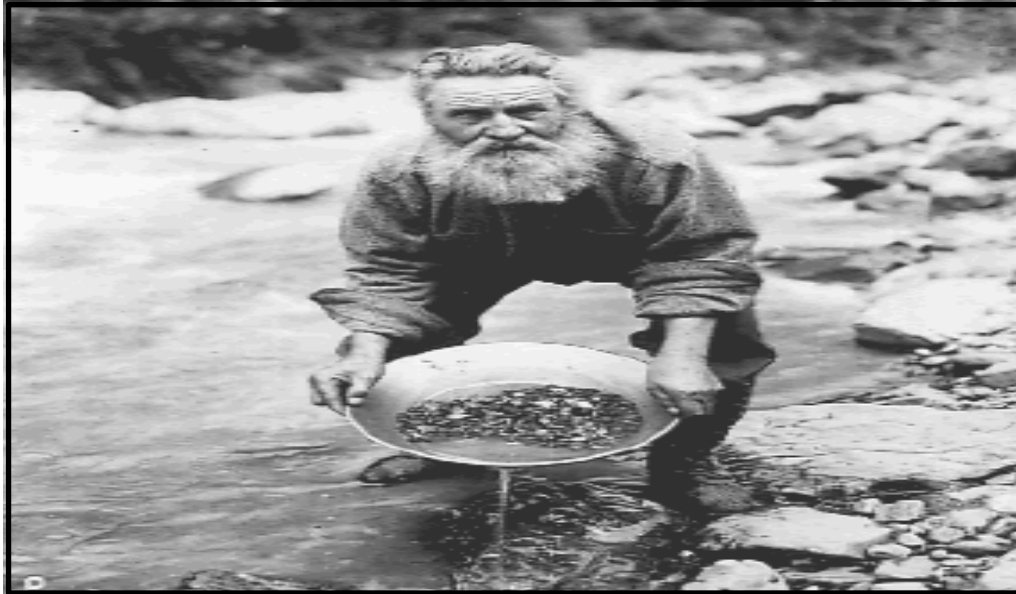
Los Angeles Times

The Oscar Senti-meter — a tool developed by the L.A. Times, IBM and the USC Annenberg Innovation Lab — analyzes opinions about the Academy Awards race shared in millions of public messages on Twitter.”



“Data is the new oil.”
Clive Humby

New realities require new tools





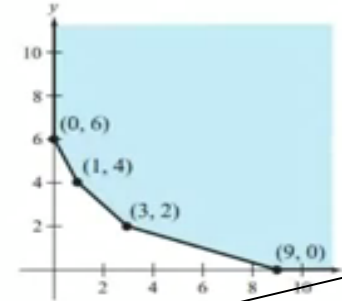
Siddharta al suo amico Govinda:

"Quando qualcuno cerca, allora accade facilmente che il suo occhio perda la capacità di vedere ogni altra cosa, fuori di quella che cerca, e che egli non riesca a trovar nulla, non possa assorbir nulla, in sé, perché pensa sempre unicamente a ciò che cerca, perché ha uno scopo, perché è posseduto dal suo scopo.

Cercare significa: avere uno scopo ma trovare significa: esser libero, restare aperto, non aver scopo. Tu, venerabile, sei forse di fatto uno che cerca, poiché, perseguendo il tuo scopo, non vedi tante cose che ti stanno davanti agli occhi ».

Hermann Hesse
SIDDHARTA

Data Analysis methods are evolving, type of data are evolving, size is increasing....



Descriptive

What is our customer segmentation by country/territory? What products are selling best?

Predictive

What will be our campaign return for Q4? What combination of products will sell best? What are customer segmentation attributes associations according to past campaign results?

Prescriptive

In order to foster a certain product to sell, we need to promote through 15% discounts on this customer segment with this channel, to obtain the highest profit based on costs, budgets, constraints and benefits associated with the campaign

Cognitive

What is driving our revenue? Answer: X & Y are driving revenue and here are three identified areas to help future growth. What concepts are associated with this customer claim or opinion? What words/offers will engage her?

Unstructured

So what is cognitive computing?

kāg-nə-tiv (*adjective*): of, relating to, or involving conscious mental activities (such as thinking, understanding, learning, and remembering)

- Cognitive computing and cognitive based systems accelerate, enhance and scale human expertise by:



Learning and building knowledge,

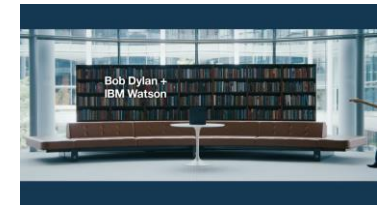


Understanding natural language and



Interacting more naturally with humans than traditional programmable systems

- Over time, cognitive systems will simulate more of how the brain actually works and help us solve the world's most complex problems by penetrating the complexity of Big Data

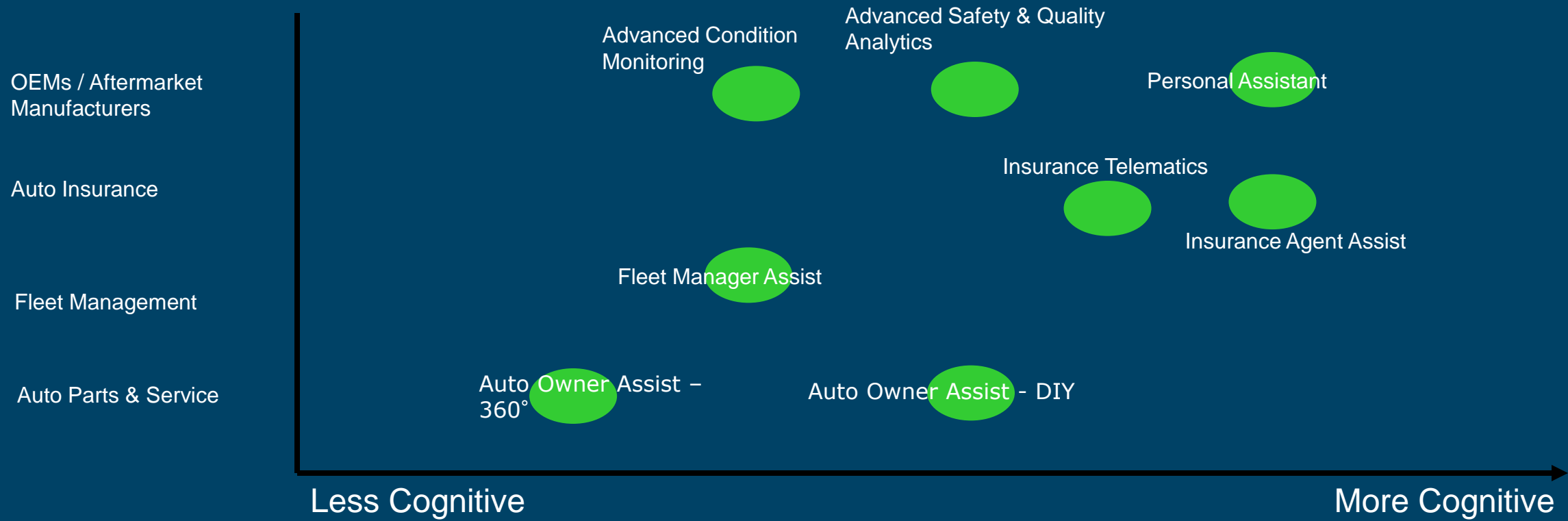


What kind of impact will all this have on the Industries?





Potential Connected Vehicle Use Cases





Problem:

Infotainment applications do not have a seamless interface because of lack of voice recognition. This causes the infotainment capabilities to either go unused or to be used in unsafe conditions.

Solution Description:

Watson enabled voice recognition for in vehicle infotainment (IVI) applications. Natural Language Processing systems to allow end users to have seamless control over applications in a conversation format.

Benefits to Drivers:

- More seamless use of IVI systems
- Safer IVI applications
- Compliance with hands free regulations
- Allow for a broader scope of IVI applications and an expansion of the vehicle application ecosystem

End user:

- Car Owners

Watson Value Add:

- Watson voice recognition sitting on top of an IVI console would allow the driver to have an easy and safe way to utilize infotainment applications.

Target clients:

OEMs, Aftermarket Producers, Developers
(Possibly an ecosystem play)



IBM Predictive Maintenance and Quality (PMQ) – What if.....

What if you could statistically determine, monitor and control those process variables that effect product quality?

What if you could recognize warranty issues sooner, identify the root cause faster and perform corrective/preventative actions?

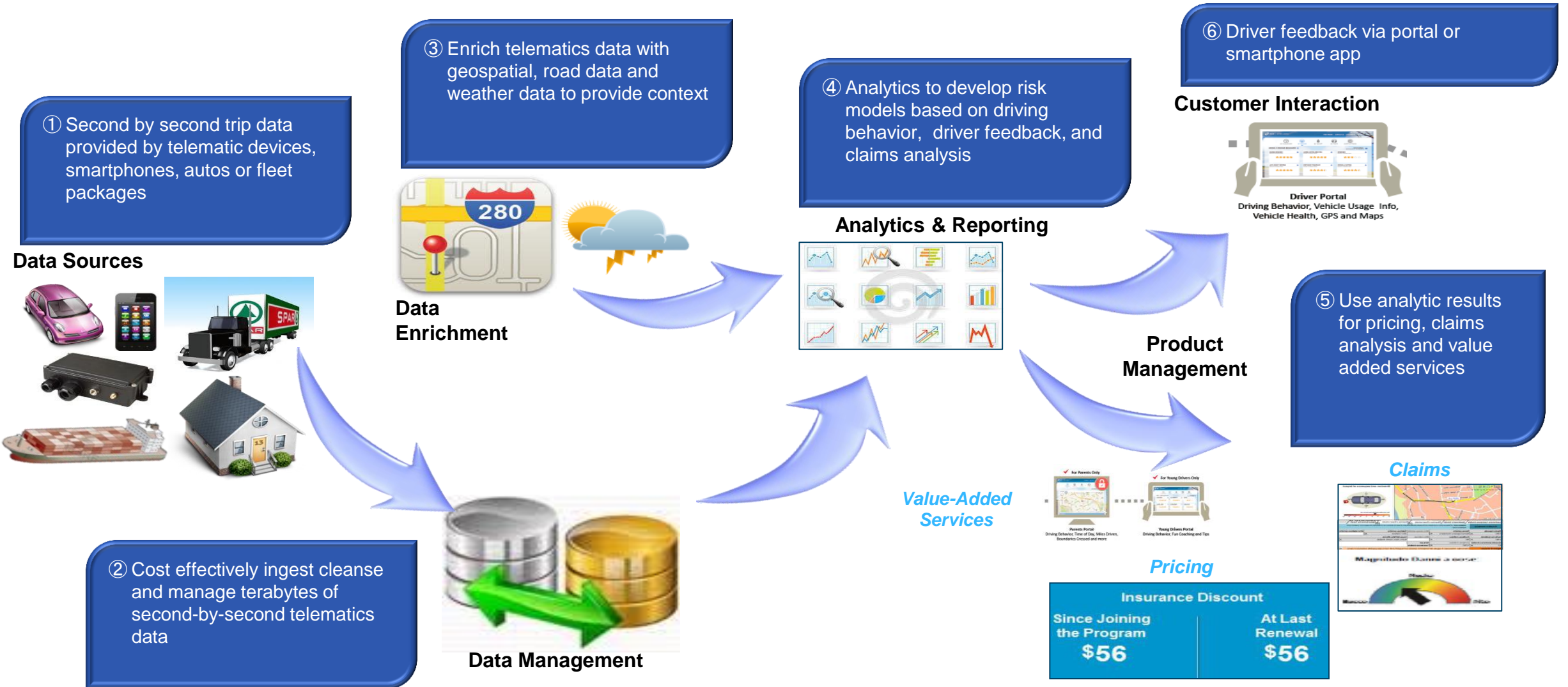
What if you could predict the failure of an asset to prevent costly unexpected downtime?

What if you could quickly mine the thousands of maintenance logs to determine the most effective repair procedures and maintenance cycles?

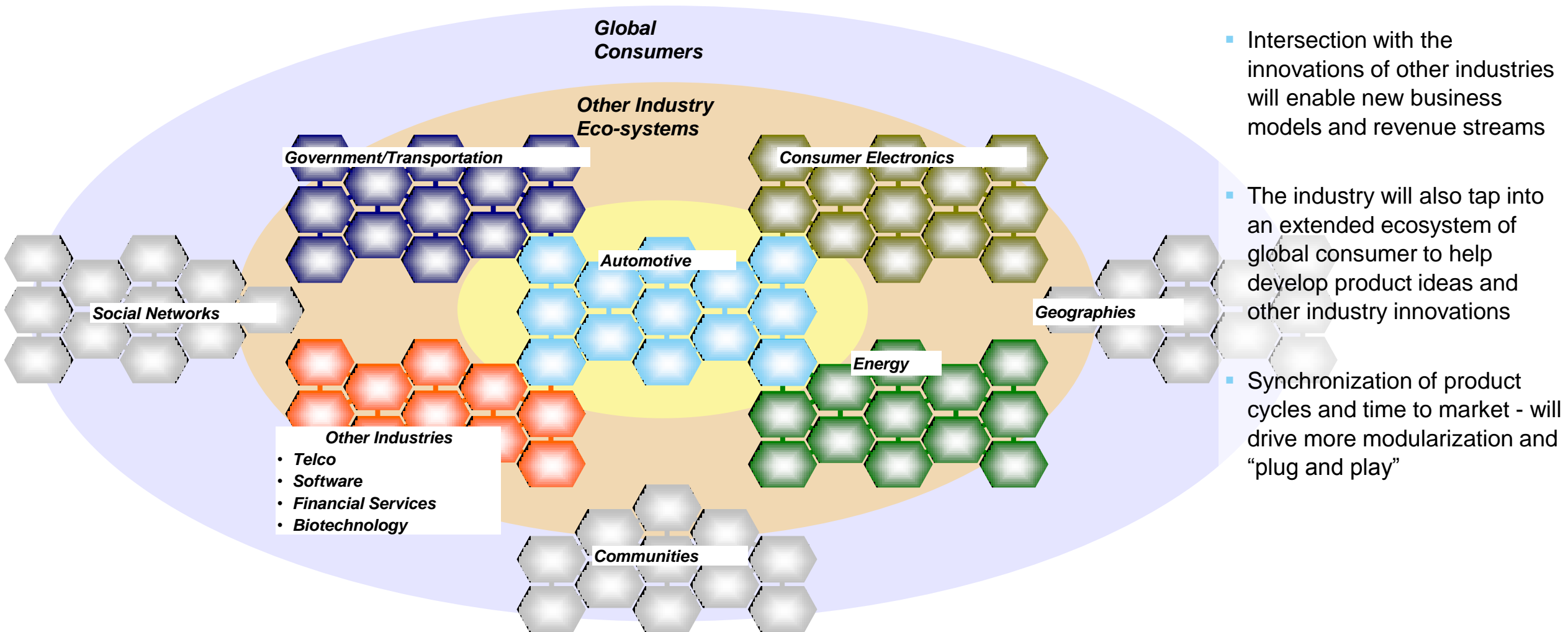
You could...

- Improve operational efficiency
- Optimize product quality
- Extend the life of an asset
- Reduce unscheduled maintenance
- Improve diagnosis and prognosis capabilities
- Determine best repair strategies
- Exceed customer expectation

Insurance Telematics



Co-dependent ecosystems will align to address consumer, regulatory and environmental concerns



THANK

YOU