



Digital Business Models in Networked Abundance

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(from CIGREF study with Francis Pereira & Ron Ploof)

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**DATA, DIGITAL BUSINESS MODELS, CLOUD COMPUTING
& ORGANIZATIONAL DESIGN**

Paris, November 2014

Digitality
Game
Changers



New Digital
Business Models



New Forms
& Sources
of Value



What were we thinking?



Outline

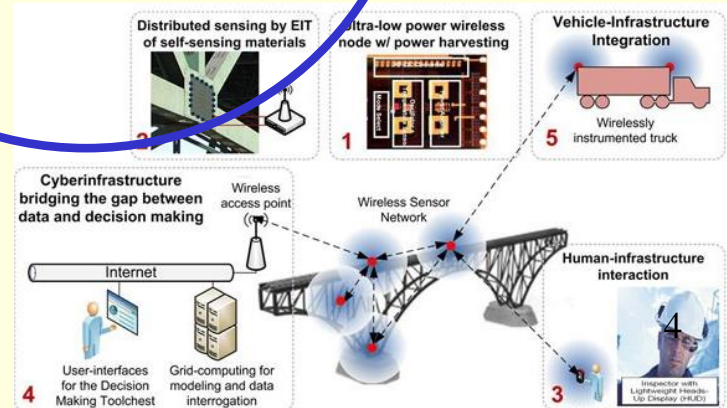
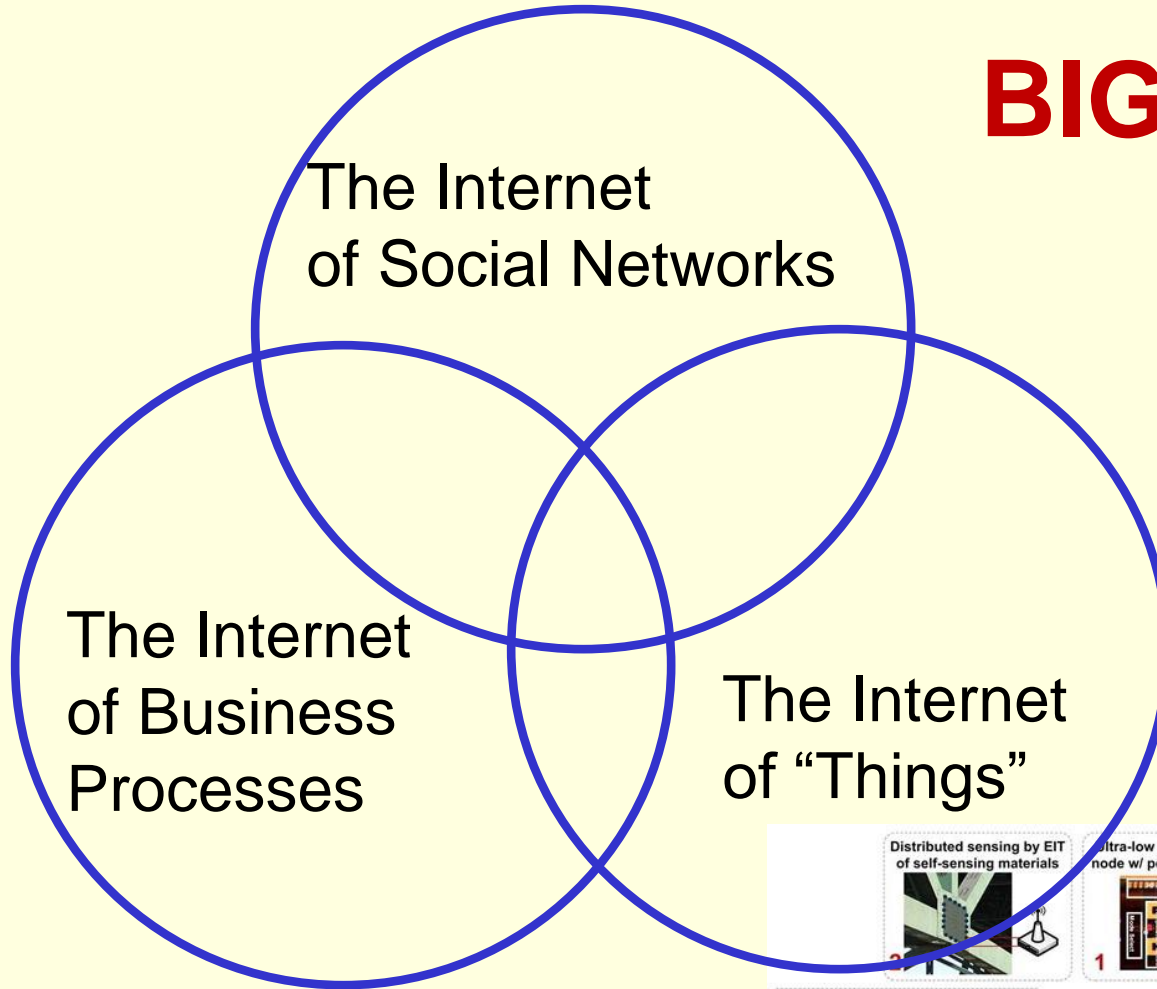
1. From the Internet of Things to Networked Abundance

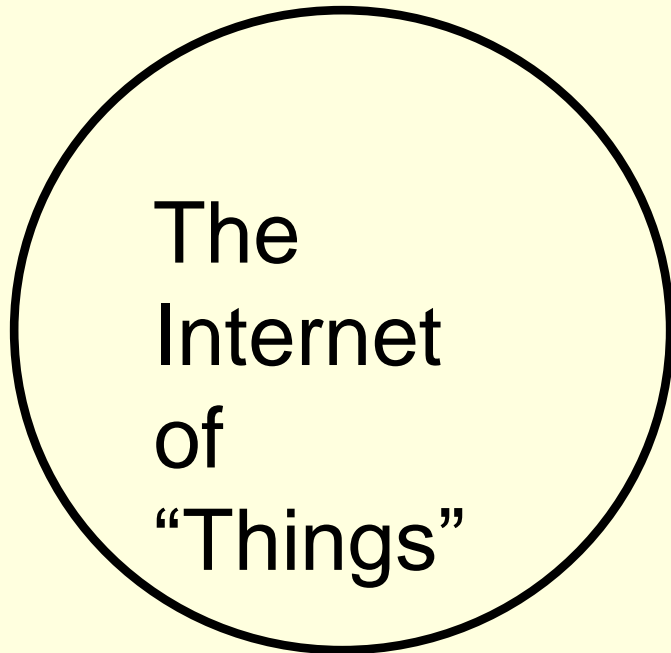
2. The Connected Car Example

3. Emerging Implications for Enterprise 2020

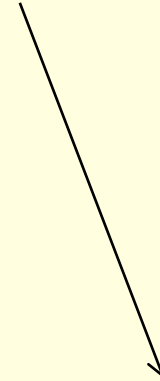
3 “Internets” are growing exponentially ...

BIG DATA !!





Beyond M2M !



Networked Abundance!

Game Changer #1 Primacy of the Customer Digital Experience

Digitality Game Changers

Game Changer #2 Distributed Co-Creation of Value at the Edges

Game Changer #3 Continuous Sense-and- Respond Experimentation





**The Emerging Digital Enterprise
is both Connected to the Community
Ecosystem and is Porous ...**

Customers

Crowds

Competitors

Citizens

Collaborators/Complementers

NETWORKED ABUNDANCE ?

= BIG DATA ++

++ ?

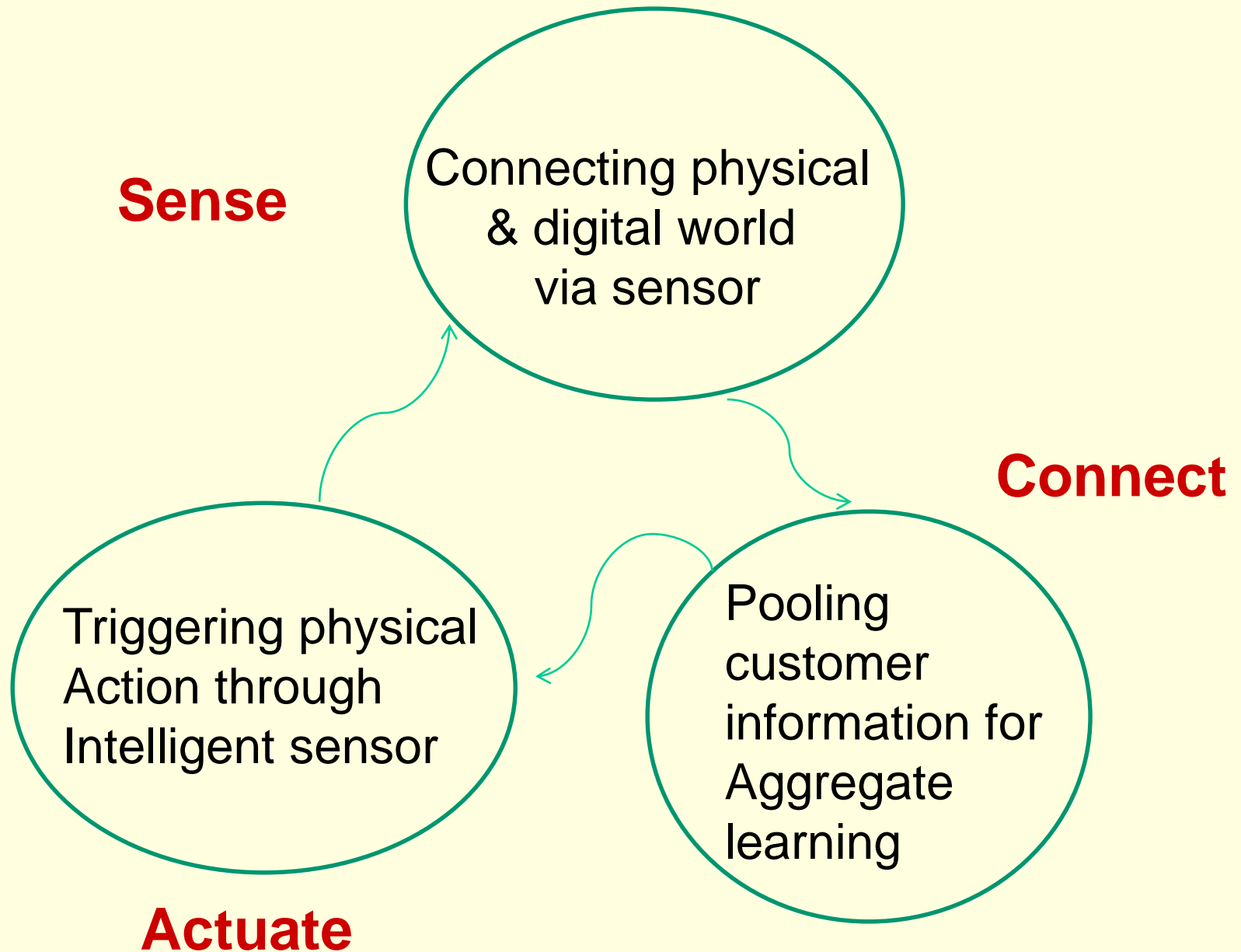


- Network connectivity at the Edges (sensors)
- Self-Awareness: Sense-Connect-Actuate
- Extreme Personalization



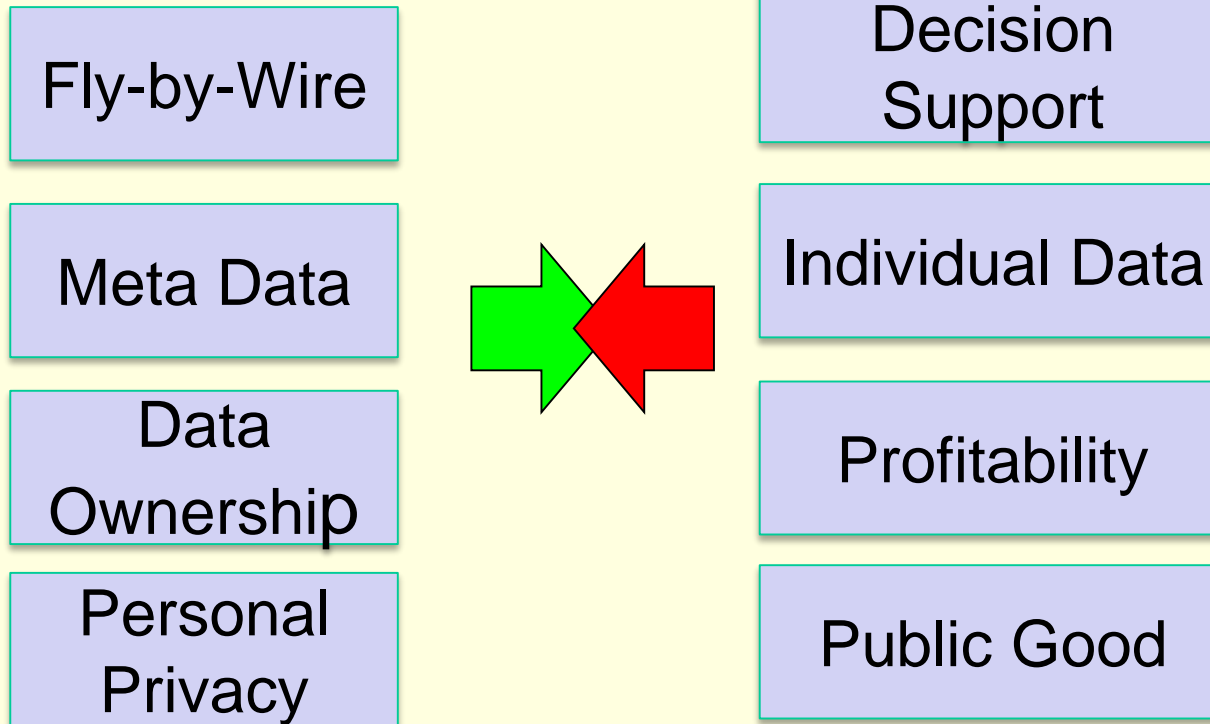
El Sawy Paris Nov 2014





Identifying Tensions

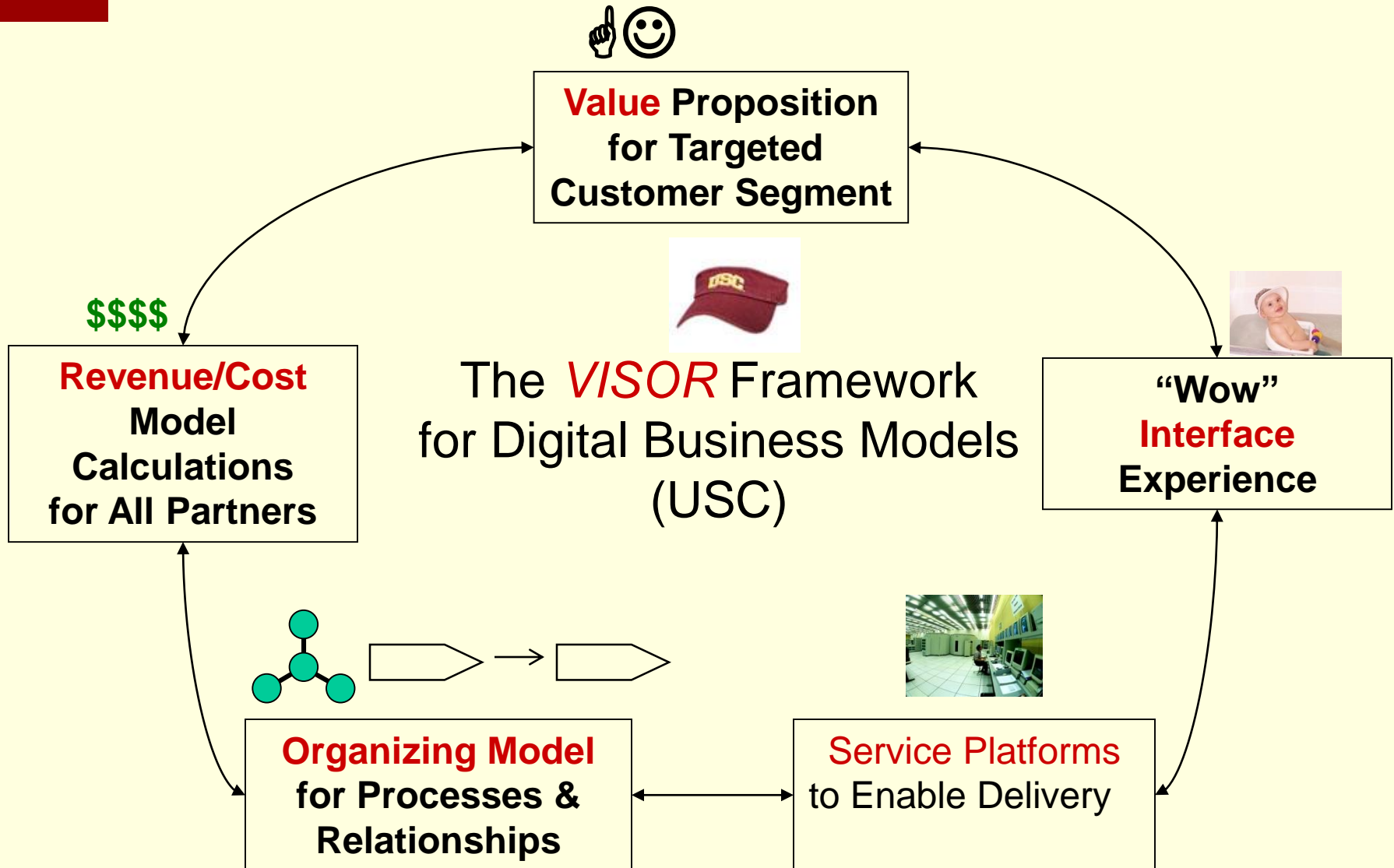
What are new tensions that have been created?
What are current tensions that have been alleviated?



Networked Abundance + New Tensions

----->> **New Digital Business Models !**

Digital Business Models?



Example: Smart parking meter services



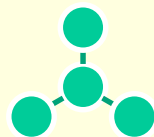
Value Proposition
for Targeted
Customer Segment

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Revenue/Cost
Model
Calculations
for All Partners

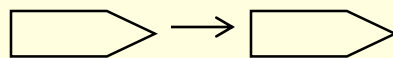


“Wow”
Interface
Experience

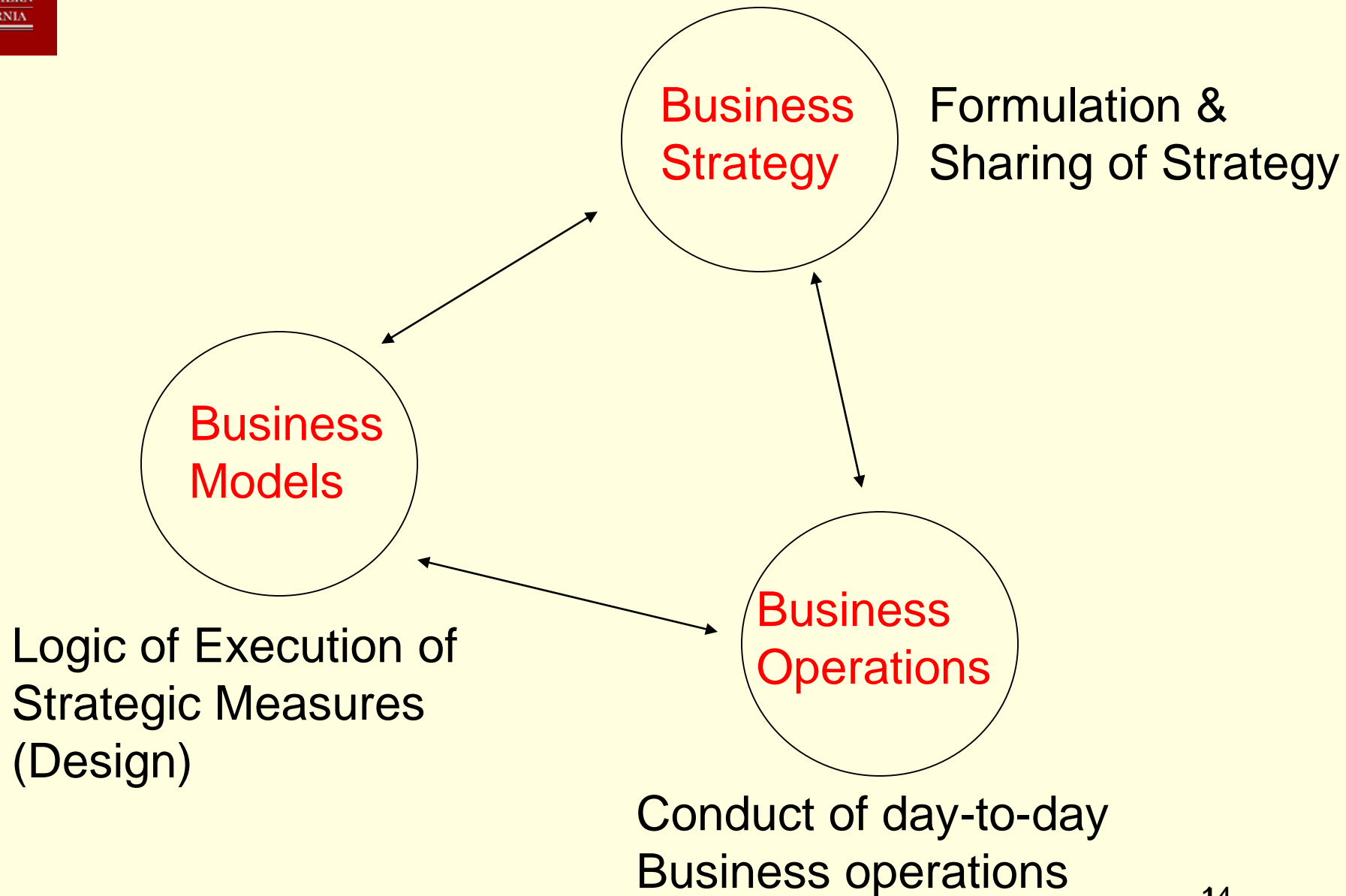


Organizing Model
for Processes &
Relationships

Service Platforms
to Enable Delivery

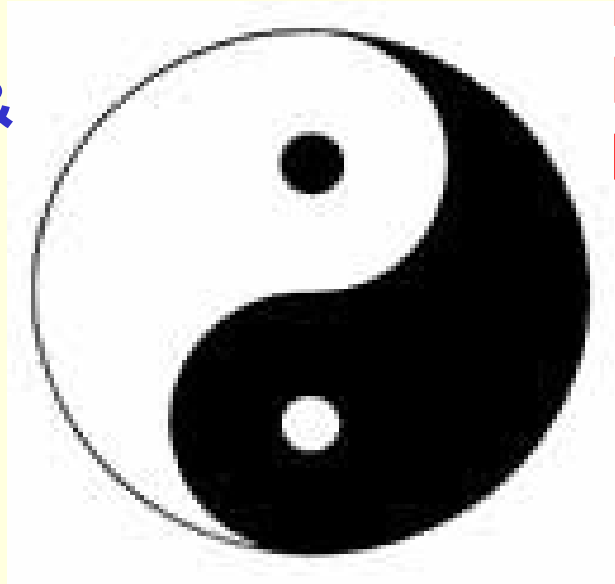


Positioning Business Models



The Yin & Yang of Digital Ecosystem Strategy & Digital Business Models

**Designing Digital
Business Models &
New Forms of
Value Co-Creation**



**Digital Ecosystem
Dynamics & Disruptive
Niche Creation**

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The Evolution of the Connected Car

Under the bonnet

How a self-driving car works

Signals from **GPS (global positioning system)** satellites are combined with readings from tachometers, altimeters and gyroscopes to provide more accurate positioning than is possible with GPS alone

Radar sensor

Ultrasonic sensors may be used to measure the position of objects very close to the vehicle, such as curbs and other vehicles when parking

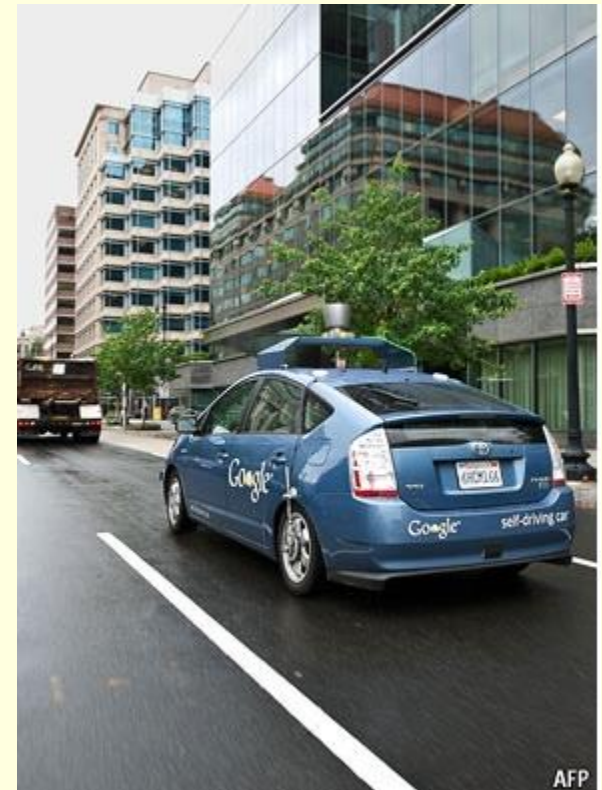
The information from all of the sensors is analysed by a **central computer** that manipulates the steering, accelerator and brakes. Its software must understand the rules of the road, both formal and informal

Lidar (light detection and ranging) sensors bounce pulses of light off the surroundings. These are analysed to identify lane markings and the edges of roads

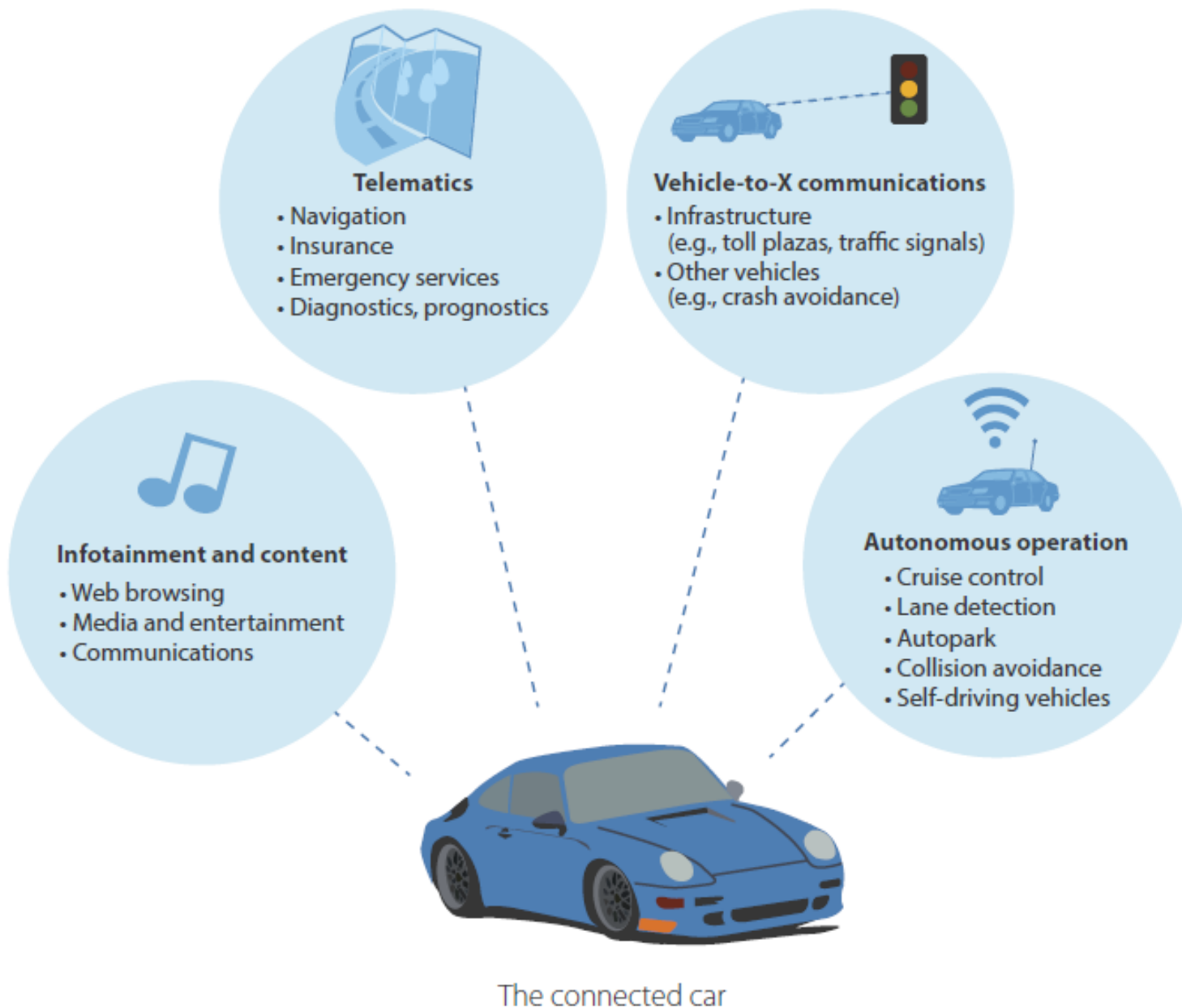
Video cameras detect traffic lights, read road signs, keep track of the position of other vehicles and look out for pedestrians and obstacles on the road

Radar sensors monitor the position of other vehicles nearby. Such sensors are already used in adaptive cruise-control systems

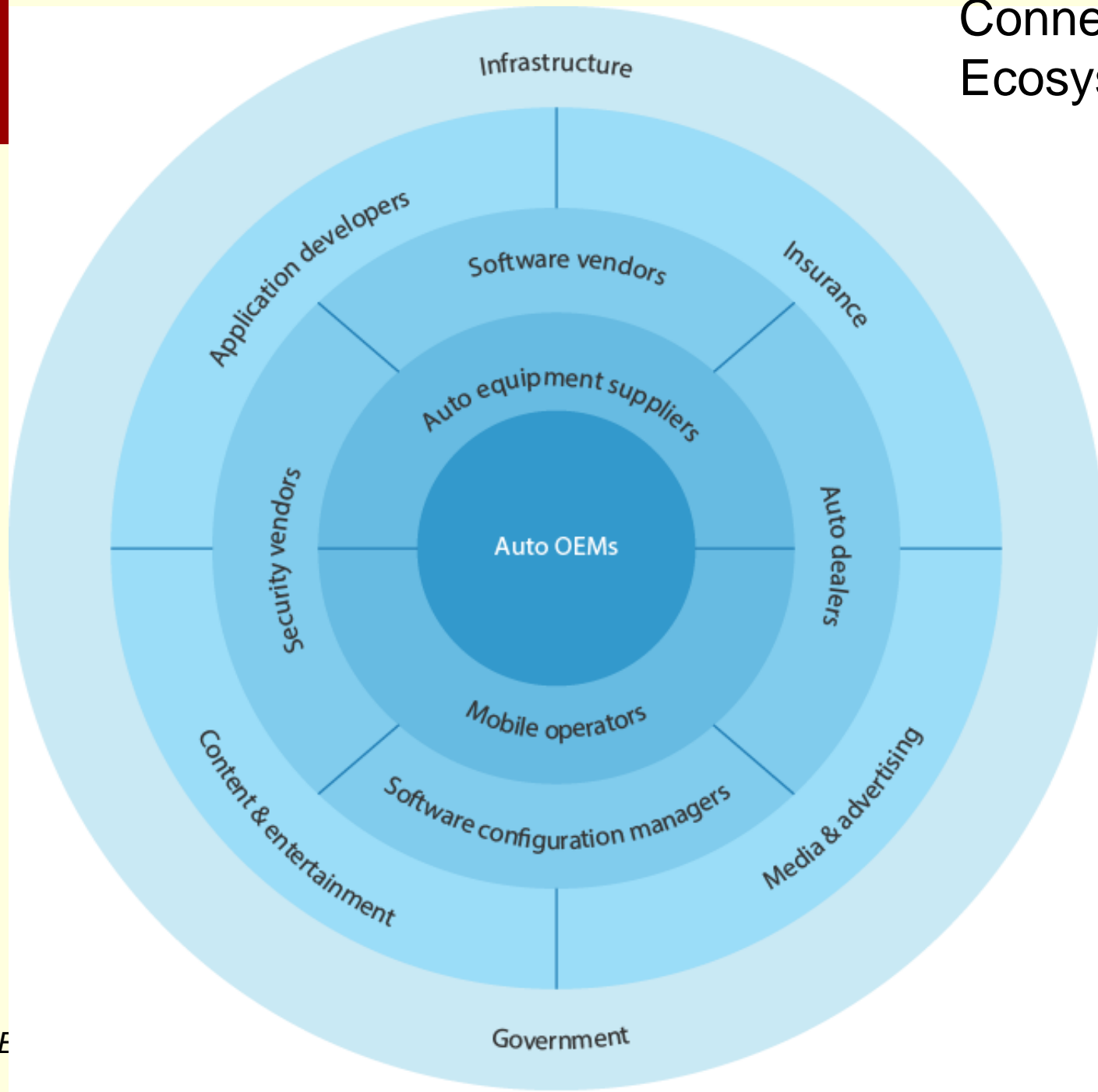
Source: *The Economist*



AFP



The connected car



Firm-Centric Platforms



Ecosystem-Centric Platforms



PRECONDITIONS:
AT WORK, TUESDAY, 5:00 PM

RYAN:
YES

RYAN:
YES, THAT WOULD BE GREAT

VEHICLE:
GOOD AFTERNOON RYAN,
ARE YOU HEADED HOME?

VEHICLE:
I SEE THERE IS A EV DRIVING ZONE
ALONG YOUR ROUTE. WOULD YOU LIKE
TO RESERVE ENERGY FOR IT?



From B2B to B2C&D !

Toyota and Salesforce.com Strategic Alliance



Connecting people, cars, dealerships, and manufacturers in a private social network.



Volvo Cars Corporation

“Nowadays, you don’t sell a car. You sell a transportation solution, and it should be as efficient and smooth as possible. Looking into the future, we might say we don’t sell a transportation solution, we sell an experience.”

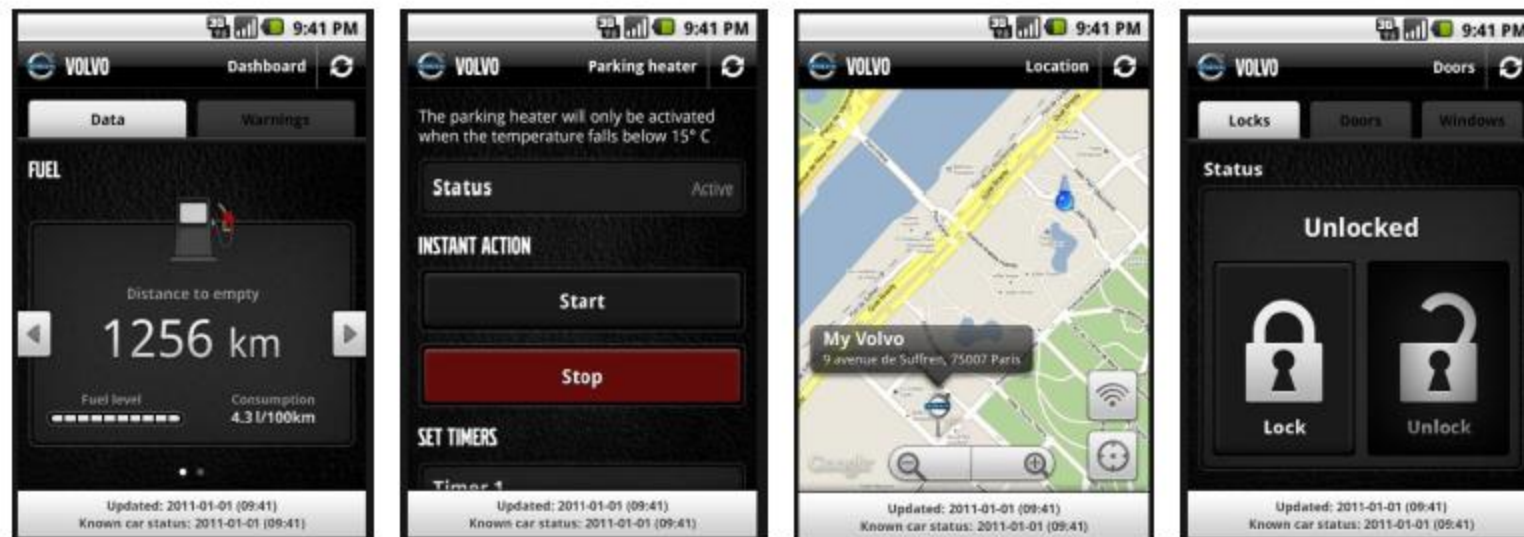
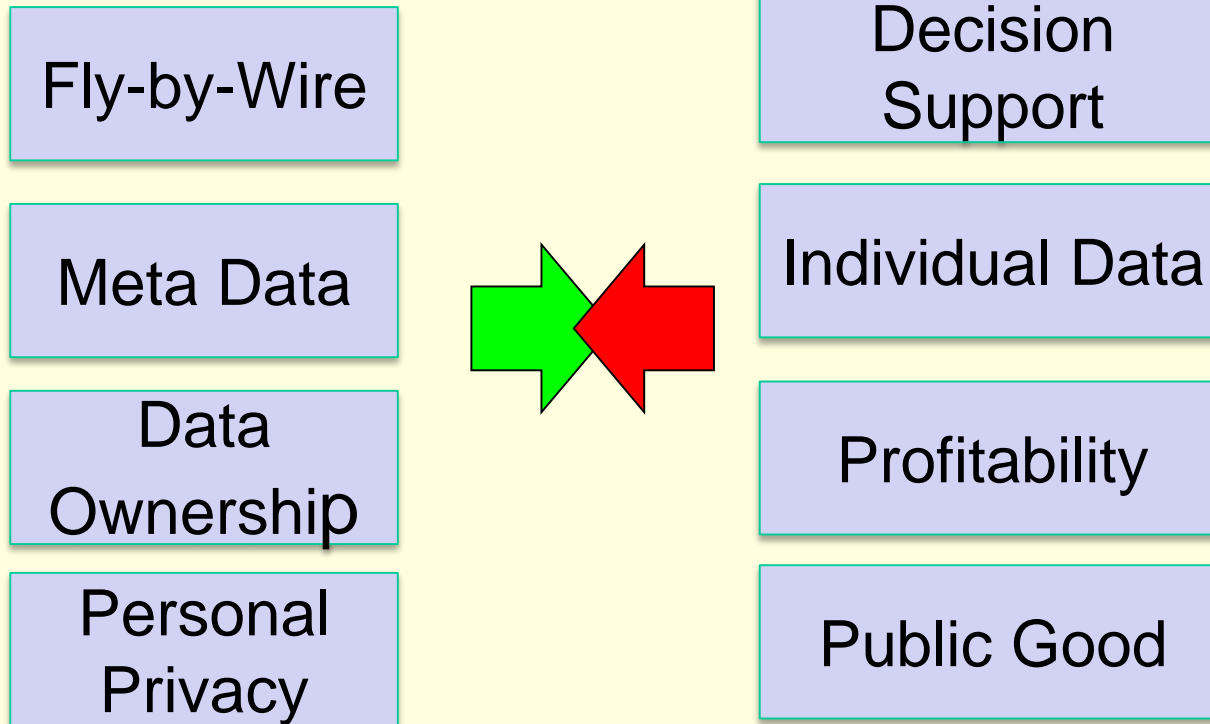


Figure 2: Screenshots of the Volvo mobile app (Source: shop Android apps – May 2012)

Managing the Tensions



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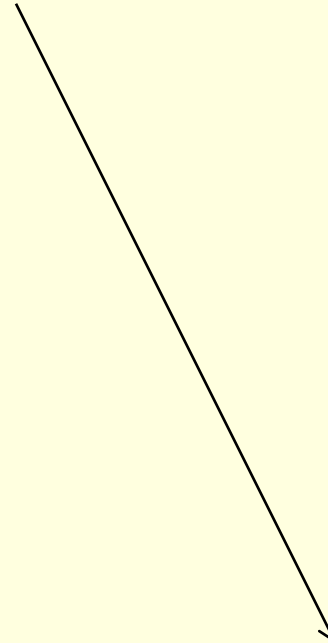
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2 Dominant Meta-Dimensions of the Networked Abundance Digital Ecosystem



Harnessing learning
from the customer
experience
to create value
in the digital ecosystem



Exploiting the intelligent
connection between the
physical & the virtual worlds

Harnessing learning from the customer experience to create value in the digital ecosystem

- Shift from “Value in Exchange” to “Value in Experience”. Instead of assuming value is delivered in standard quantities by digital products and services, then, it is perhaps more useful to see value as an experience created through use and perceived by each customer upon the enactment of a digital service.
- Involves exploiting customer co-creation and device co-creation.
- There is a shift in some industries that were not traditionally connected directly to consumers (B2B) to a co-creation and learning connection with consumers and devices (B2B + B2C +B2D).

Exploiting the intelligent connection between the physical and the virtual worlds

- With Network Abundance, enterprises would be able to more effectively deploy the Sense-Connect-Actuate loop in their operations..
- With the deployment of advanced algorithms, the need for human intervention in the decision making processes could be minimized or eliminated entirely.
- The challenges for enterprises then would be to determine what processes should be subject to “human” re-confirmation (or more likely when such processes should be subject to intervention) and what processes should be related to the “Fly-by-Wire” systems

Alternative Digital Business Postures for Enterprise 2020

		Harnessing learning from the customer experience to create value in the digital ecosystem	
Exploiting the intelligent connection between the physical & the virtual worlds		LOW	HIGH
	HIGH	One World Seamless Digital Enterprise	Network Abundance Enterprise Real-Time “Power to the Edges”
	LOW	Two World Digital Enterprise	Digital Customer Orientation Enterprise

Implication of Networked Abundance for digital business ecosystems & business model Innovation?

- New ecosystem configurations
- Devices that generate tons of data and learn from that
- Customers and devices will collaborate together and learn from each other
- Much value will be created through the edges of networks
- New business models will be created