Au-delà des casques et des écrans

La ville sensible

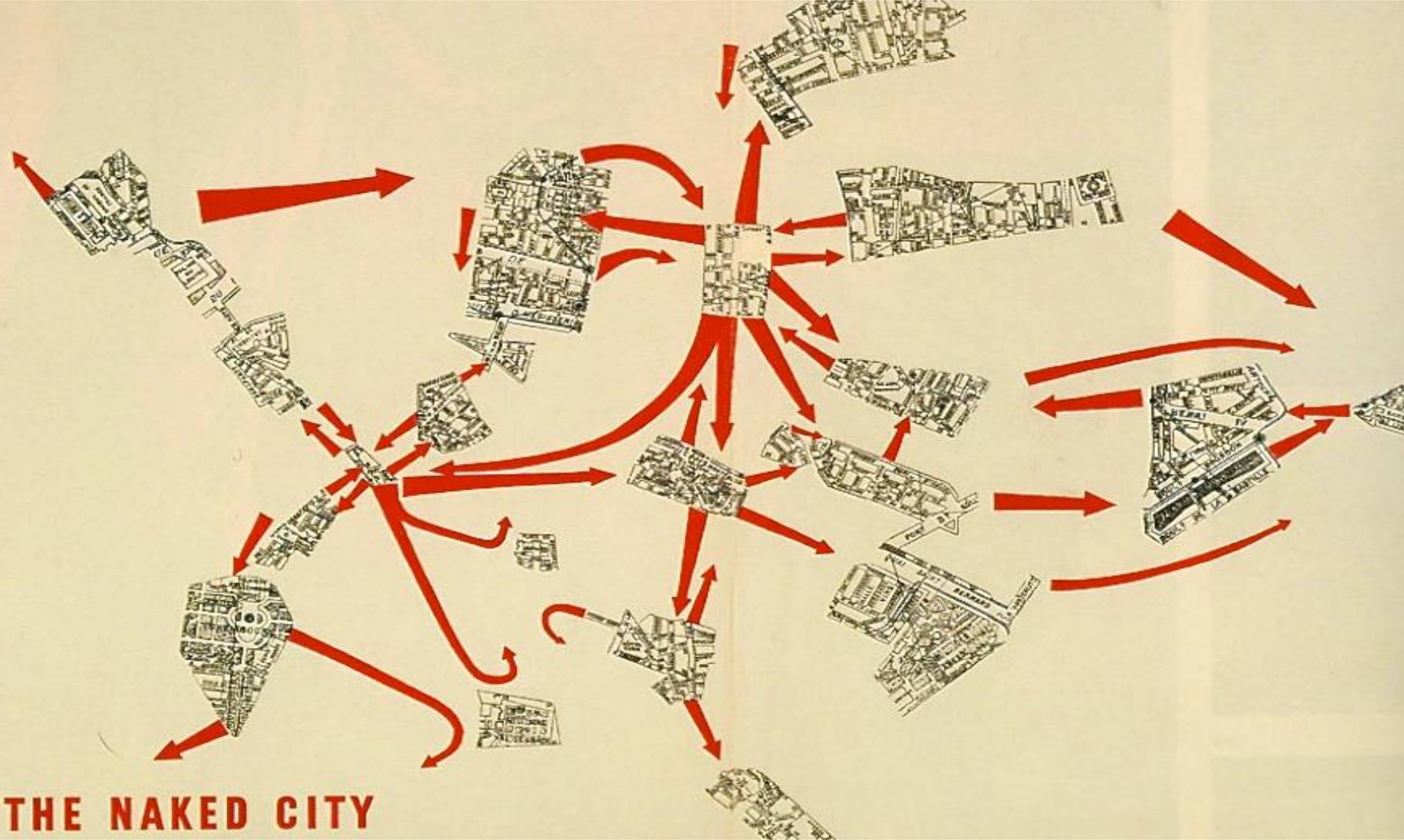
Une présentation de **Jonathan Bélisle**

“Je veux éveiller et approfondir la capacité des humains de rêver et penser le monde de demain. Je crée des processus, des outils et des expériences qui change comment nous percevons et interagissons avec le monde naturel.

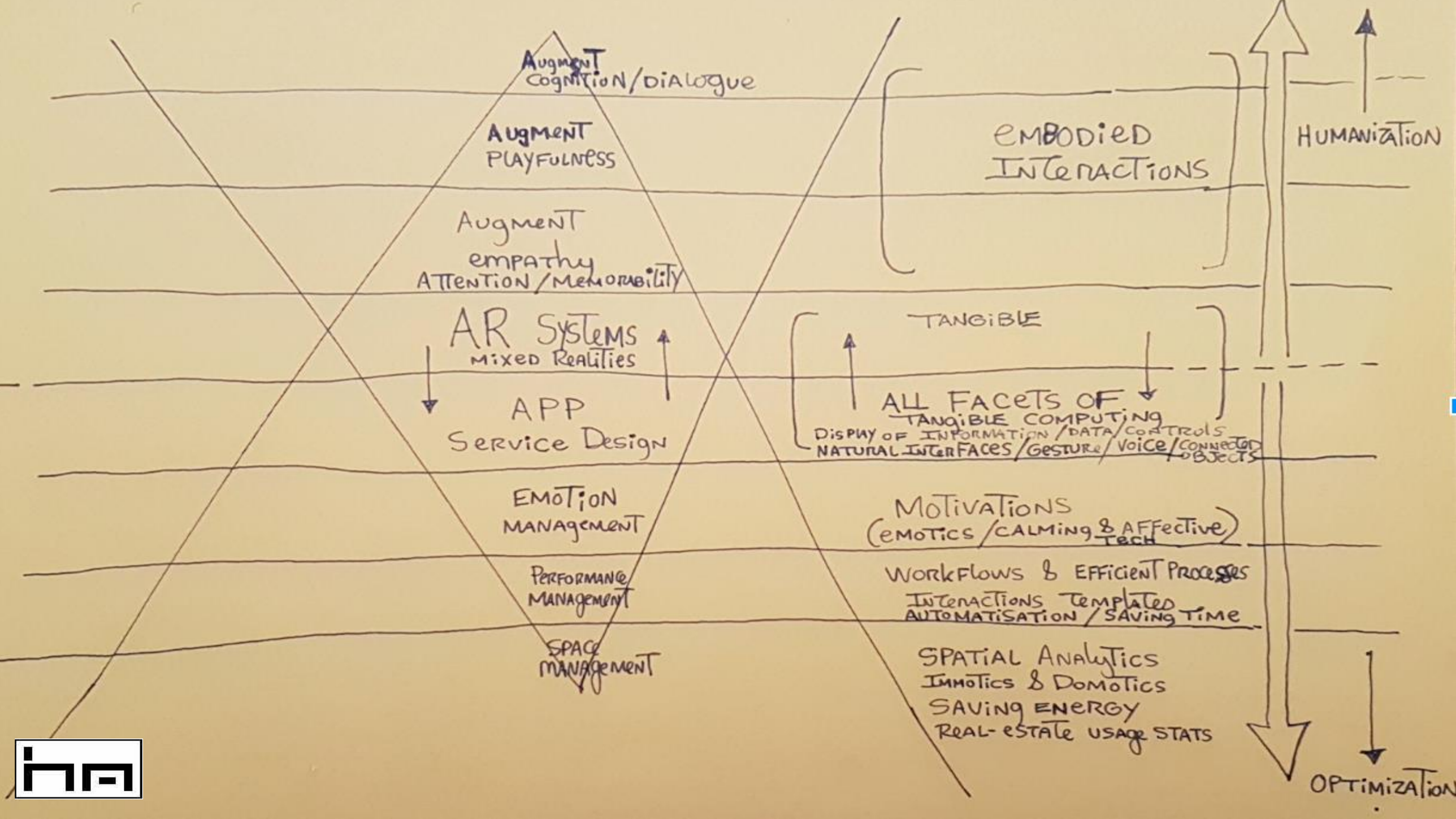
Je cherche à préserver le Human Touch (proximité humaine - proxémie) et la diversité de notre spectre d’expérience sensoriel en trouvant des usages et combinaisons d’usages inattendus, narratifs et poétiques des technologies et des interactions naturelles qui nous entourent.”

Jonathan Bélisle

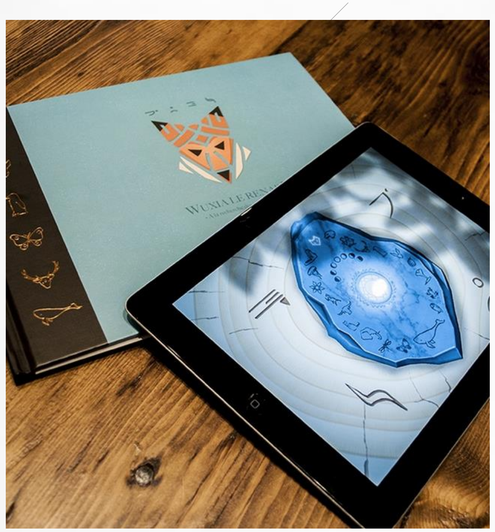
Architecte d’expériences / Poète d’interactions



THE NAKED CITY


Augment
Cognition/Dialogue
Augment
Playfulness
Augment
empathy
Attention/Memorability
AR Systems
Mixed Realities
APP
Service Design
Emotion
Management
Performance
Management
Space
Management
Embodied
Interactions
Humanization
Tangible
All Facets of
Tangible Computing
Display of Information/Data/Controls
Natural Interfaces/Gesture/Voice/Connected Objects
Motivations
(emotics/Calming & Affective Tech)
Workflows & Efficient Processes
Interactions templated
Automatisation/Saving time
Spatial Analytics
Immotics & Domotics
Saving energy
Real-estate usage stats
Optimization

QUELQUES RÉALISATIONS RÉCENTES



IMAGINONS UN FUTUR SANS CASQUE

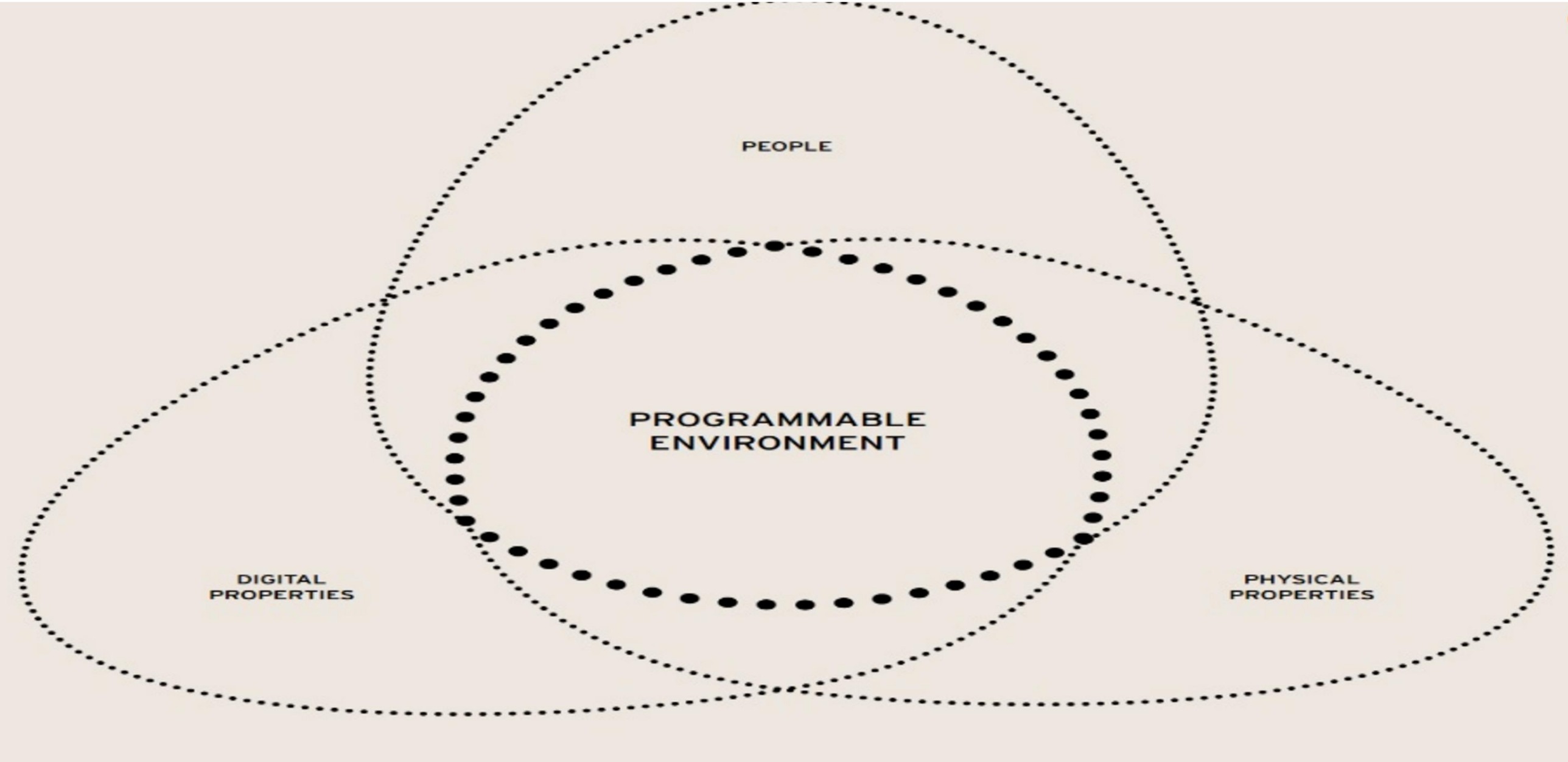
ALLONS AU-DELÀ DES AGENDAS TECHNOCENTRIQUES ET OCULOCENTRIQUES

« Il faut sortir de la fascination béate du numérique »

Rudy Ricciotti, architecte du MUCEM

https://rslnmag.fr/cite/rudy-ricciotti-architecte-du-mucem-171-il-faut-sortir-de-la-fascination-beate-du-numerique187-2/

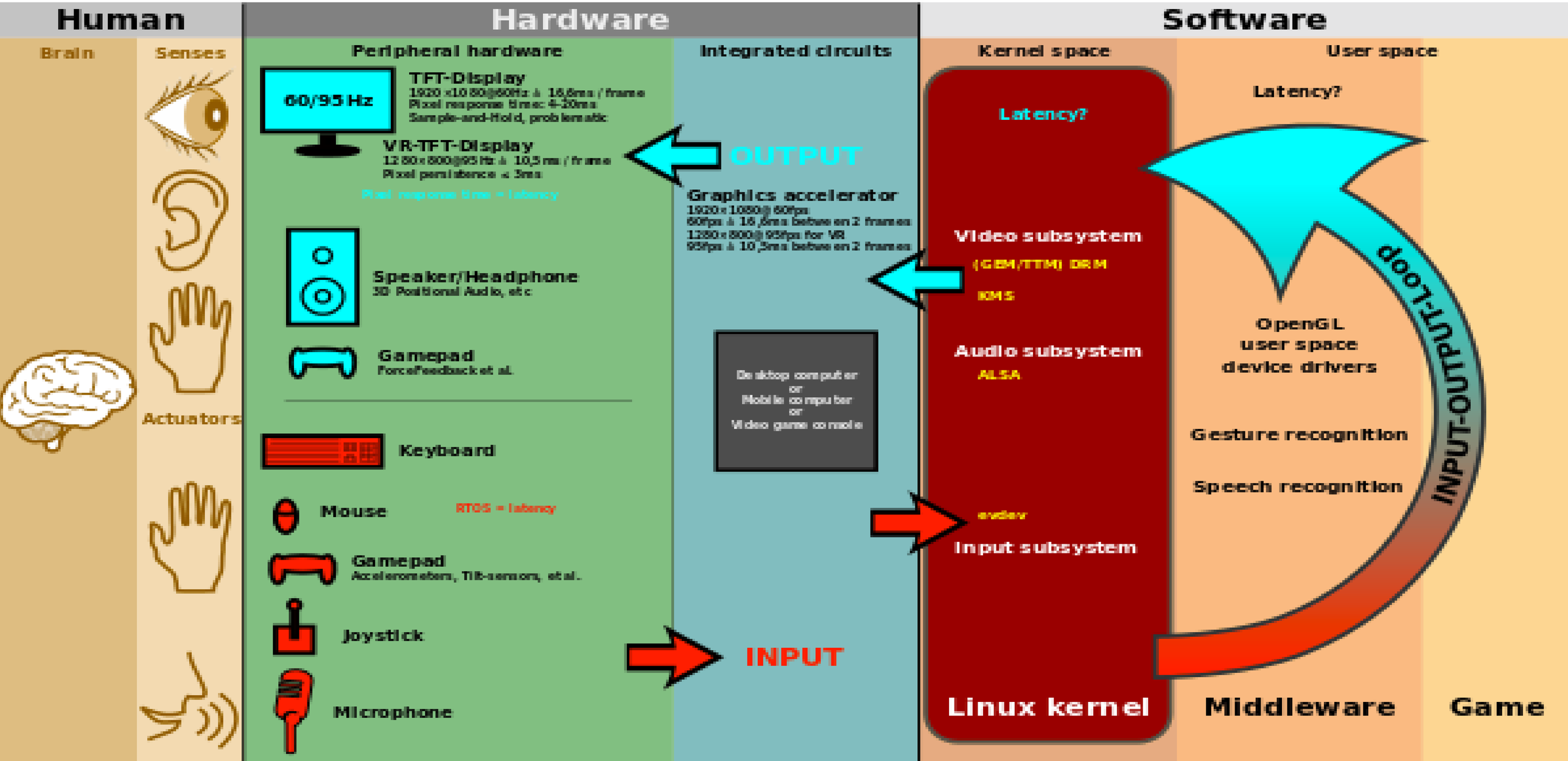
IMAGINONS UN ENVIRONNEMENT SENSIBLE ET RE-PROGRAMMABLE



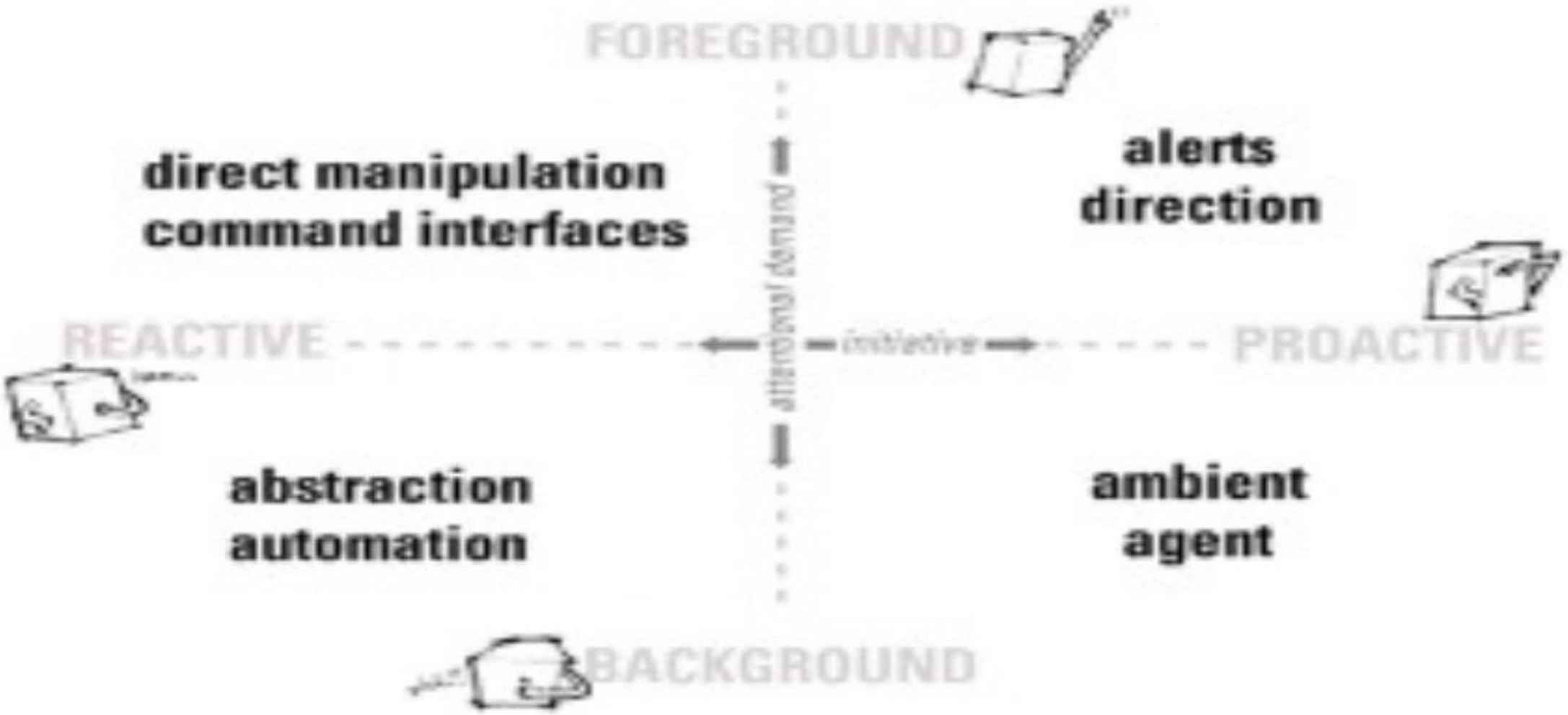
PRINCIPE DE DESIGN NO.1

L’informatique calme

Interactions Homme-Machine / Interactions naturelles



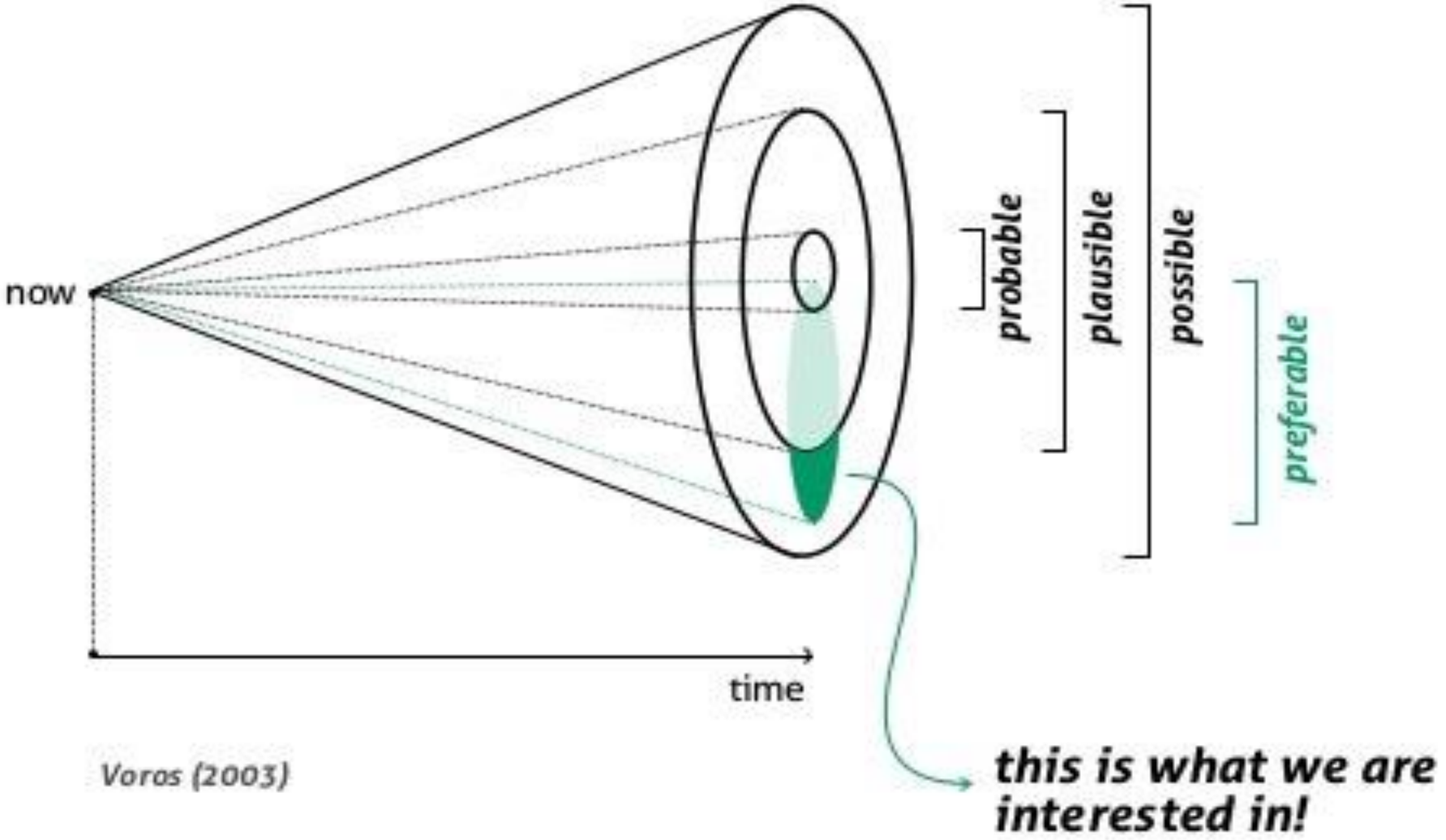
L’informatique calme



Mark Weiser - Xerox Parc - 1995

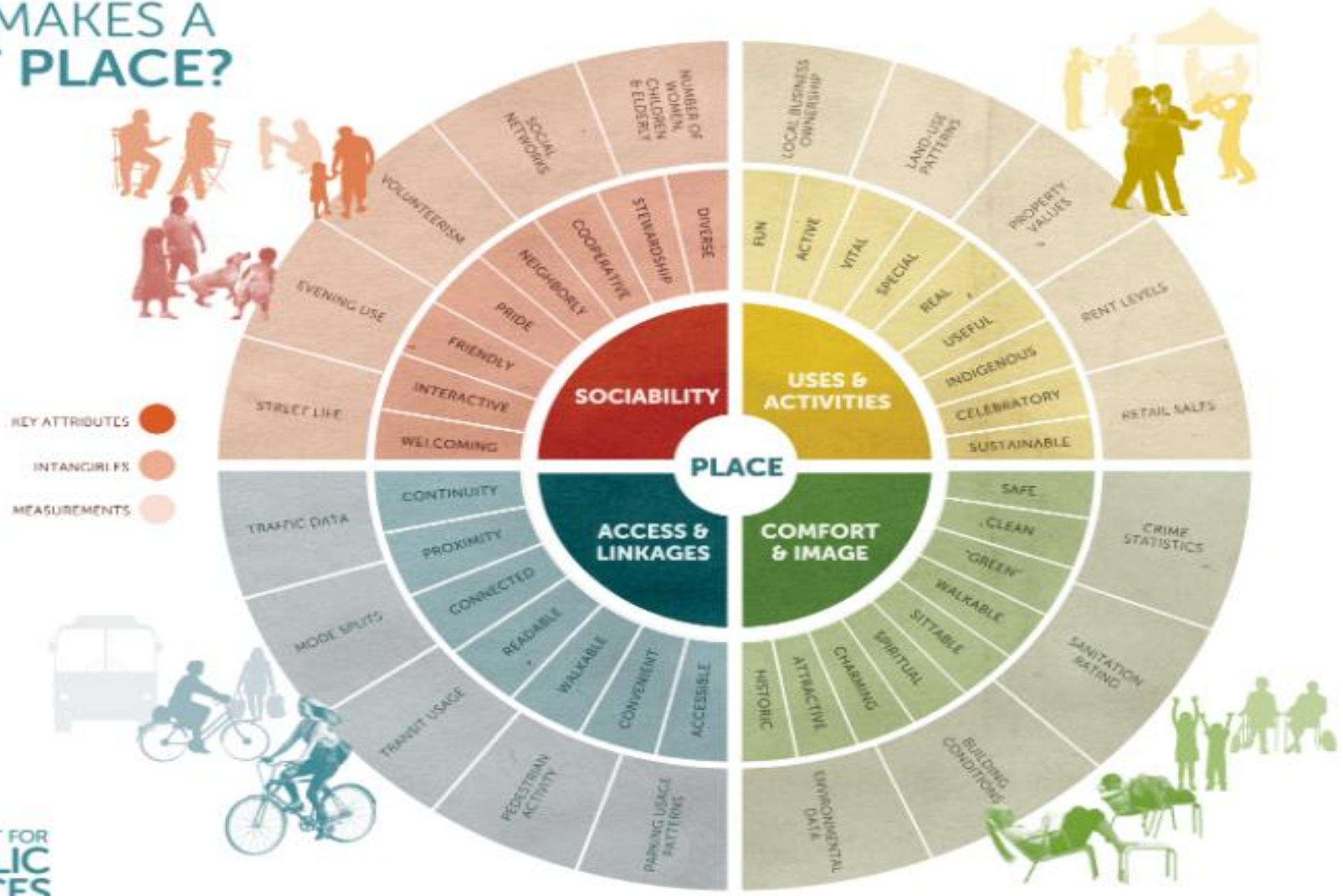
PRINCIPE DE DESIGN NO.2

L’usage donne le sens


now
time
probable
plausible
possible
preferable
this is what we are interested in!

Voros (2003)

WHAT MAKES A **GREAT PLACE?**



PROJECT FOR PUBLIC SPACES

PRINCIPE DE DESIGN NO.3

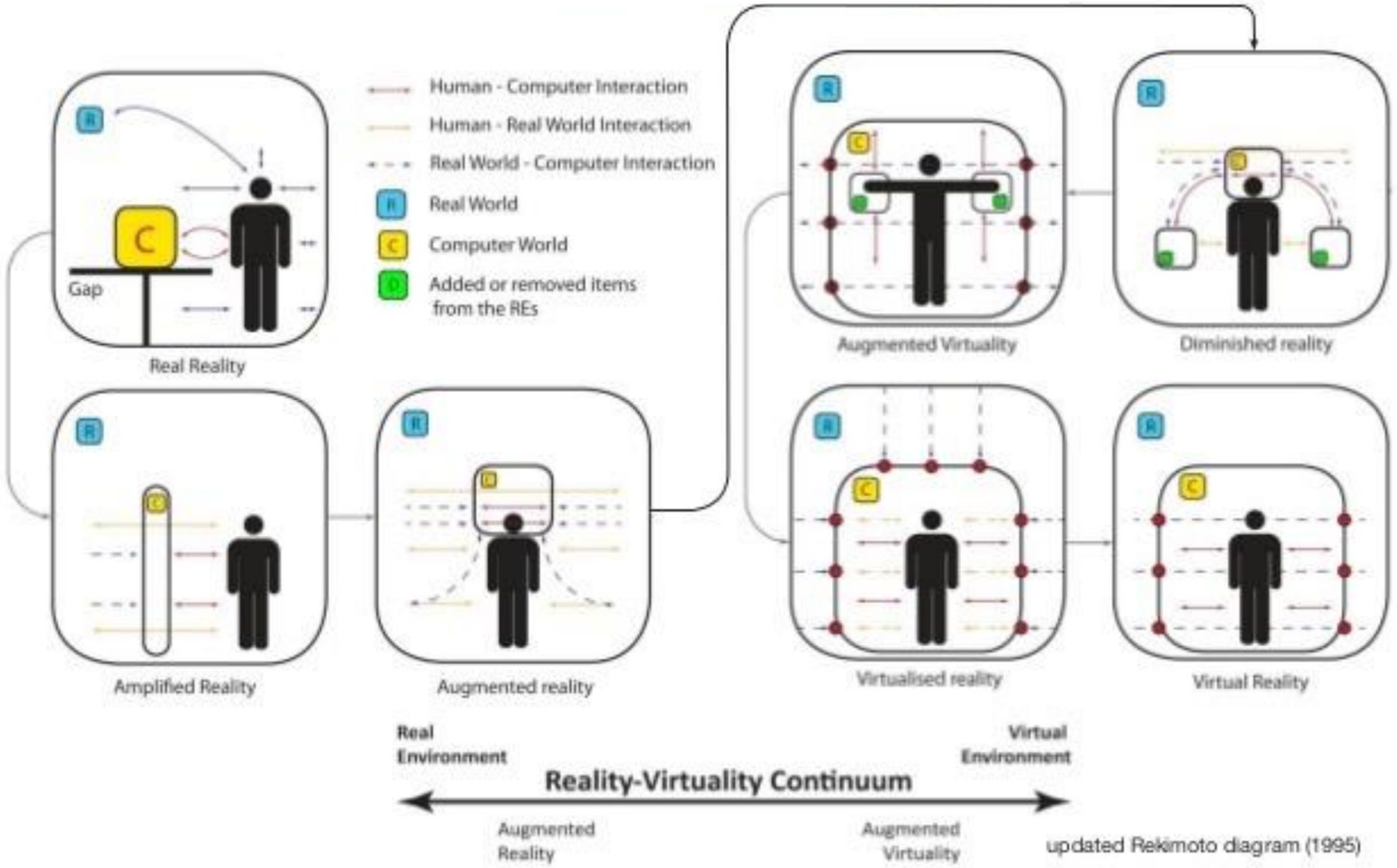
La nostalgie l’emporte sur la nouveauté

PRINCIPE DE DESIGN NO.4

Les univers narratifs sont des réalités mixtes

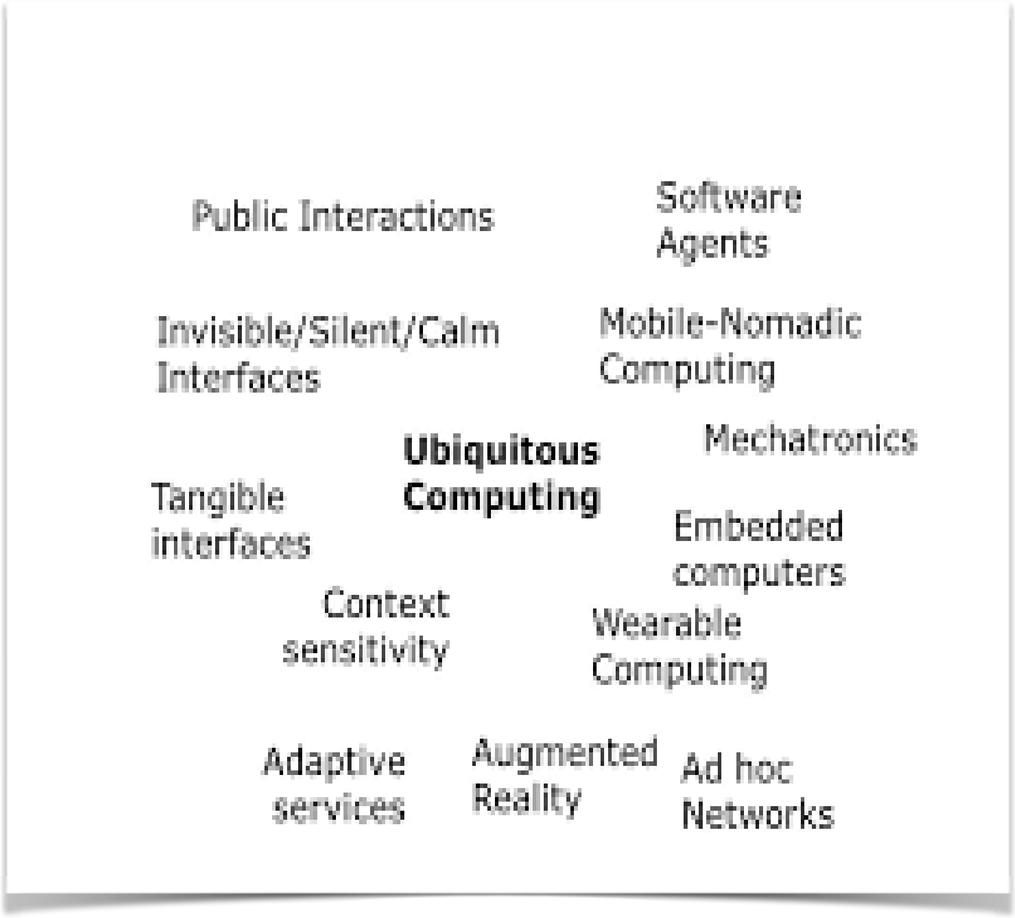

100
LOLO
13
TO-DO LIST
SO BAD!

Réalités mixtes - 2016



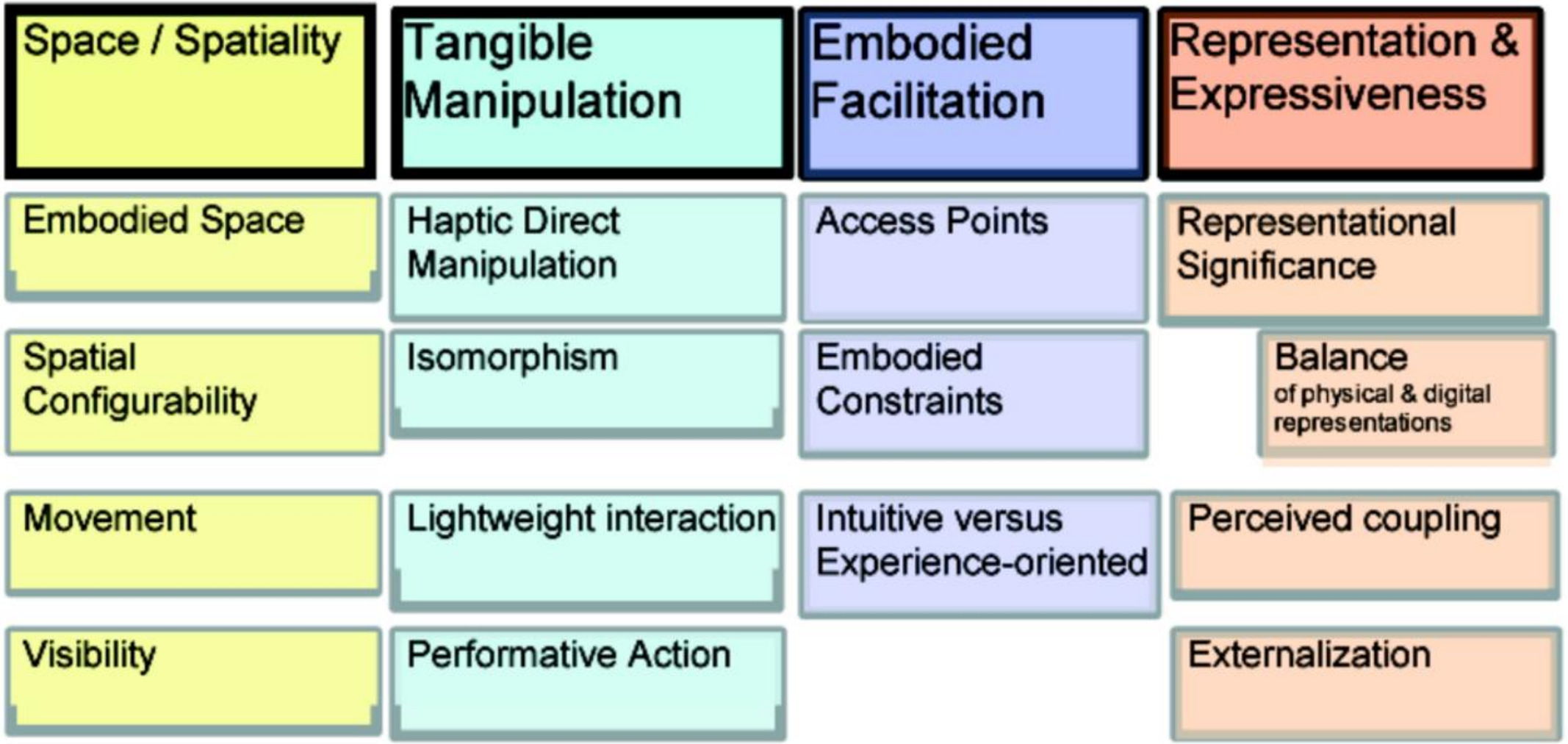
La prophétie de l'informatique calme

La rencontre de l'internet industriel et des réalités mixtes



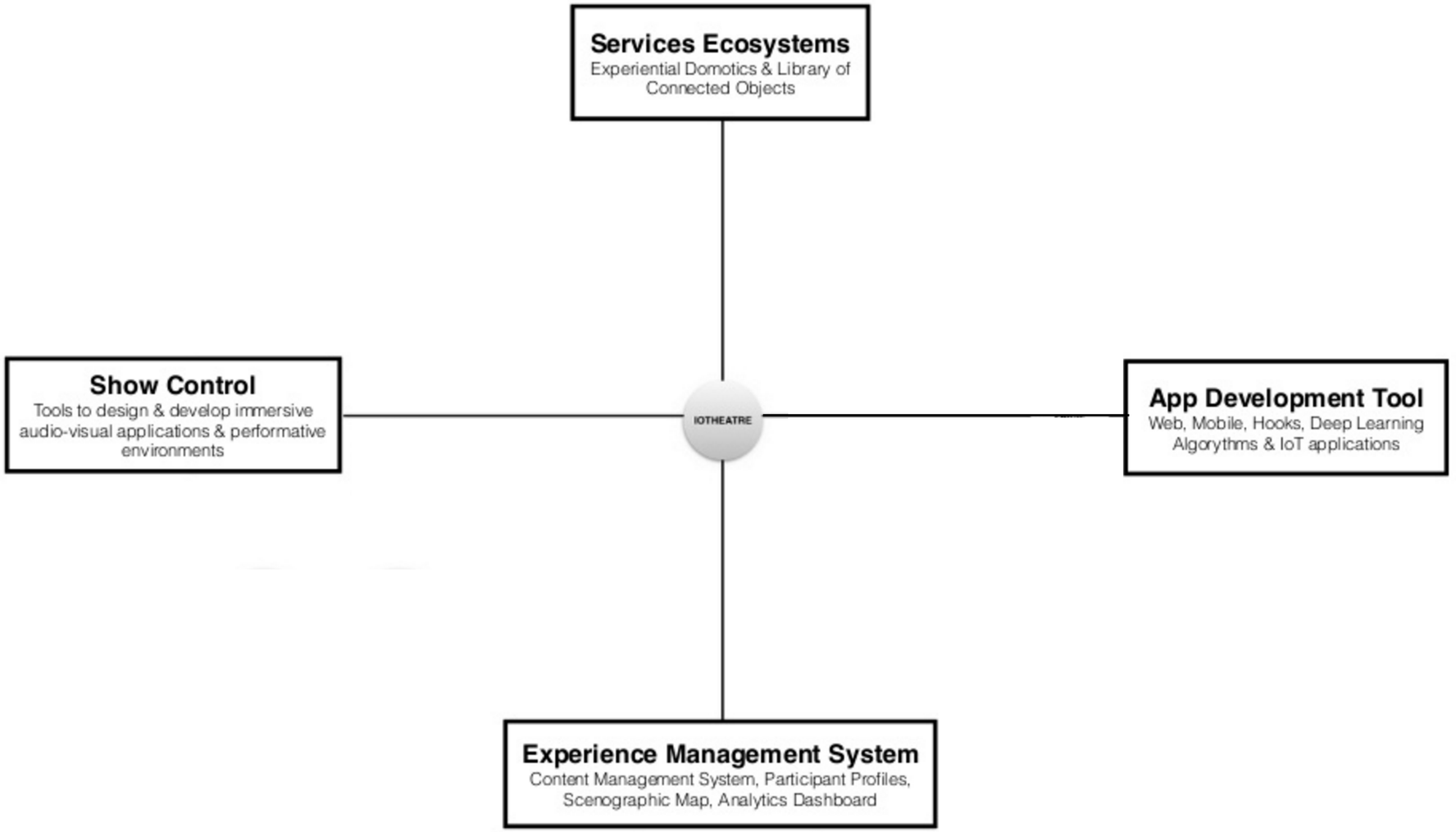
Spectre expérientiel des interactions tangibles

Les interactions tangibles englobent toutes les interfaces utilisateurs et les approches d'interactions qui mettent l'emphase sur la tangibilité et la matérialité de l'incarnation physique de l'interface au moment de la présentation des données, dans l'interaction avec spectre multisensoriel du corps de l'utilisateur et ses interactions/postures dans divers contextes de l'espace physique.



CRÉER UNE EXPÉRIENCE CONNECTÉE

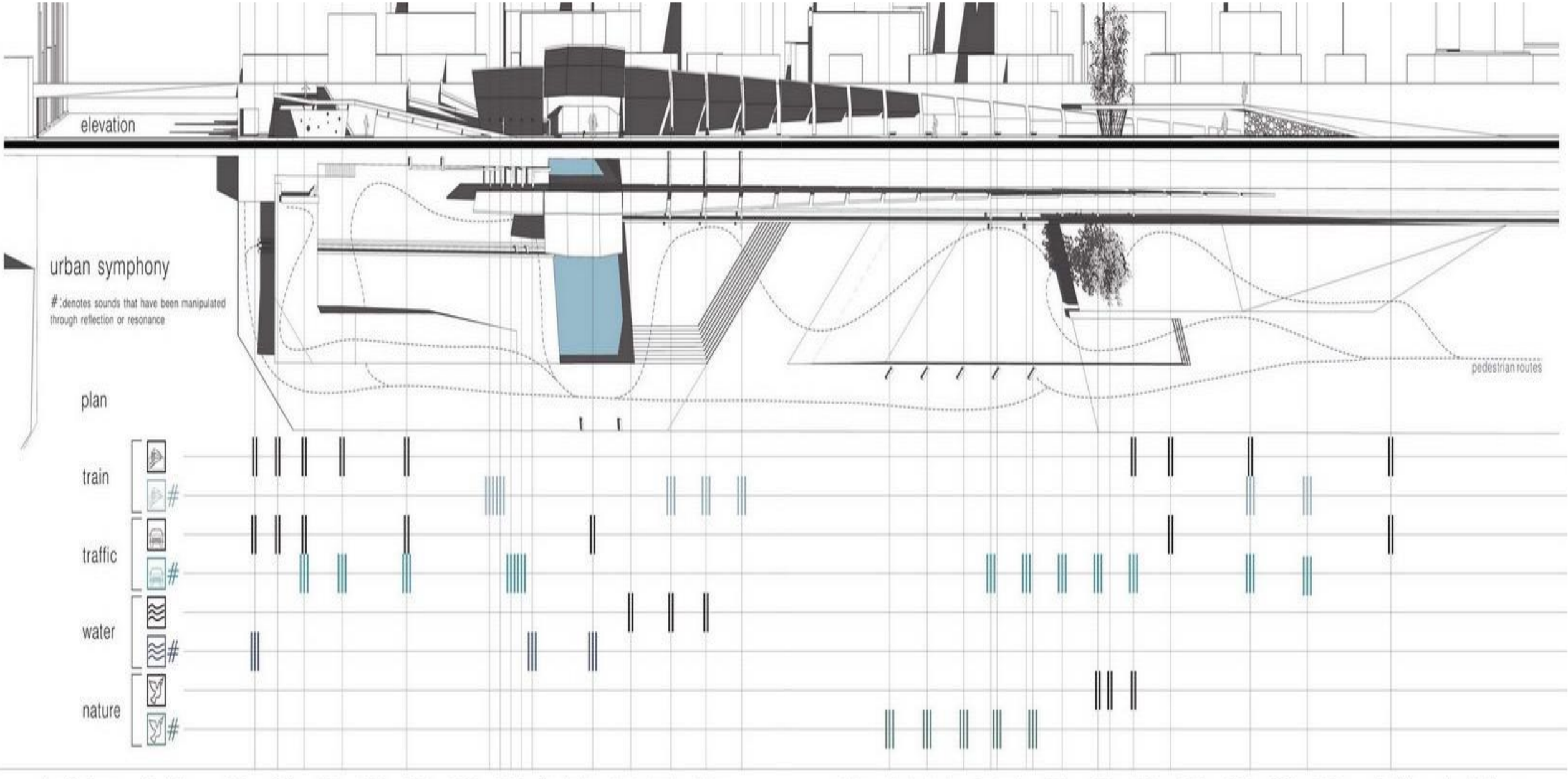
CRÉER UNE VILLE SENSIBLE



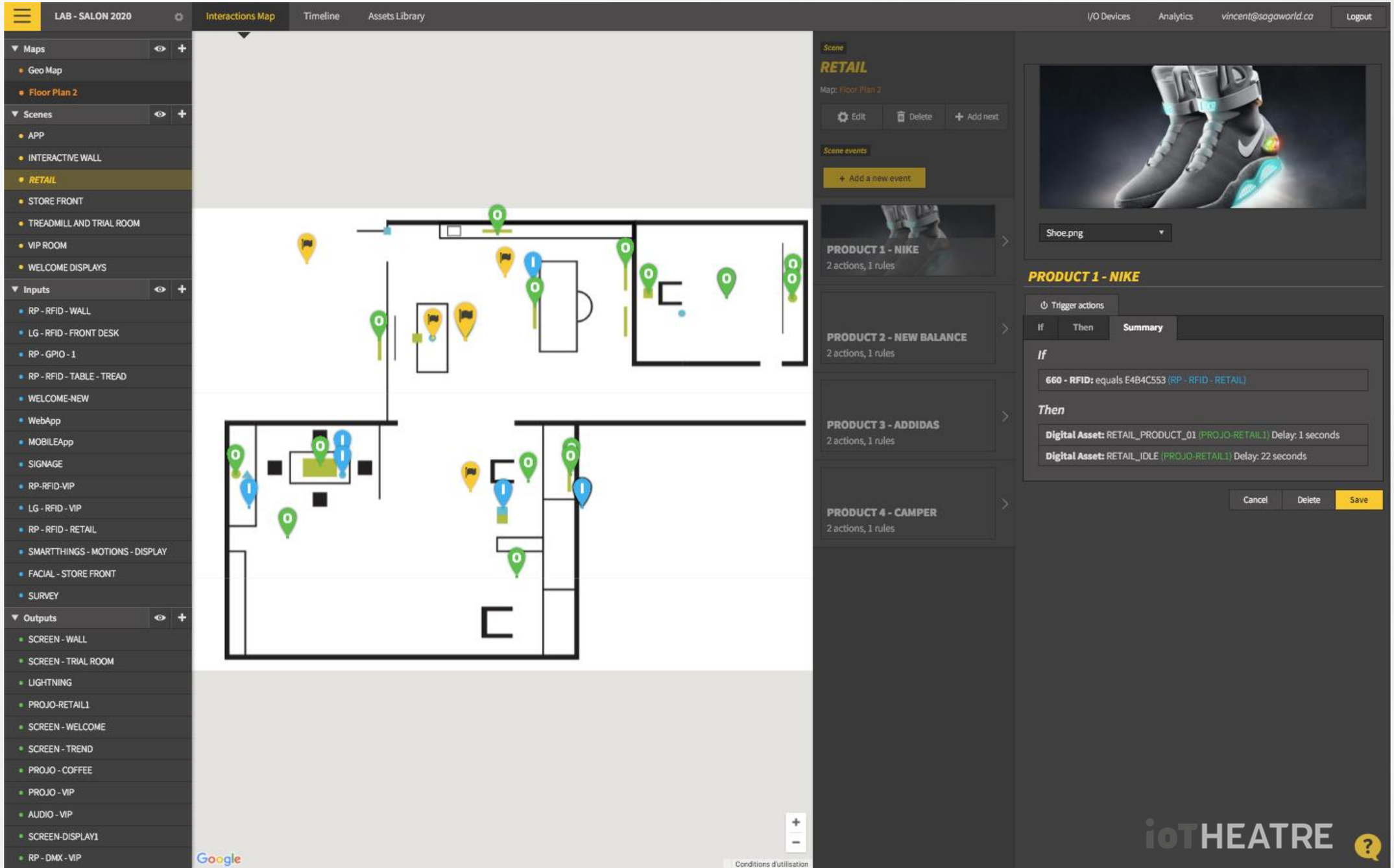
GESTION DE L'EXPÉRIENCE: CAPTEURS / ACTUATEURS

GESTION DE L'EXPÉRIENCE: CONTRÔLEURS

LIEU D’INTERACTIONS - SCÉNOGRAPHIE URBAINE

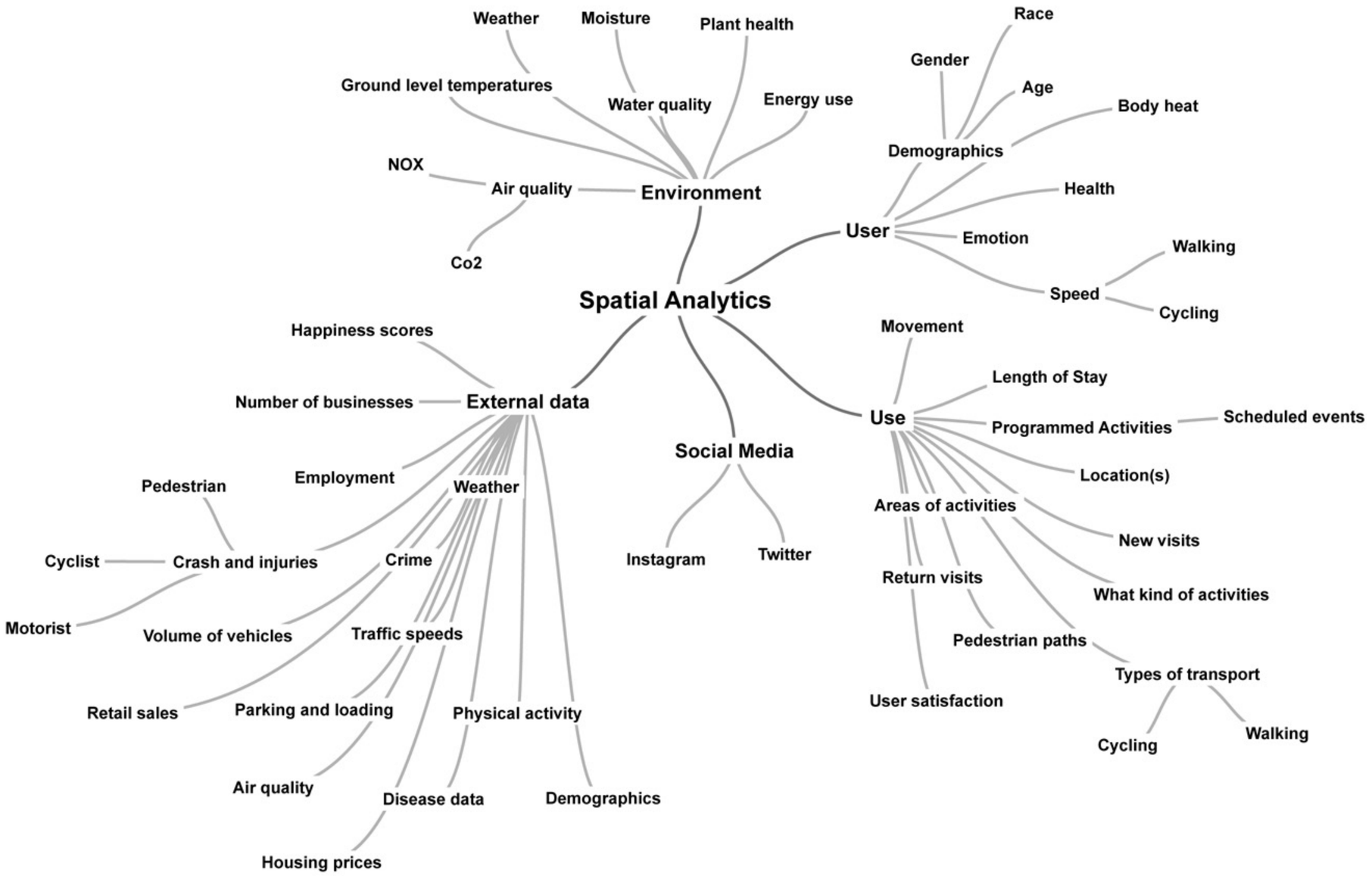


MOTEUR D'INTERACTIONS - SCÉNOGRAPHIE DE L'EXPÉRIENCE

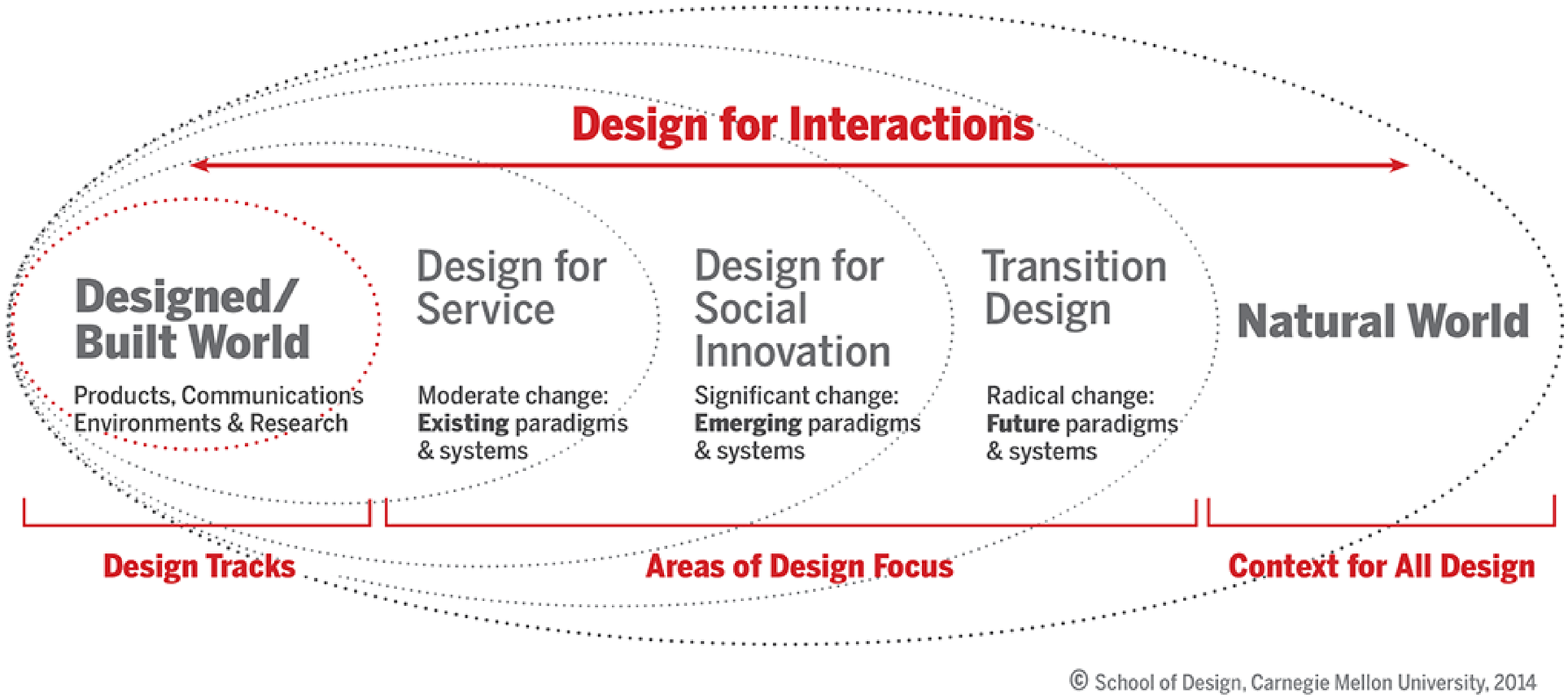


Moteur d’analyse spatiale - 2016

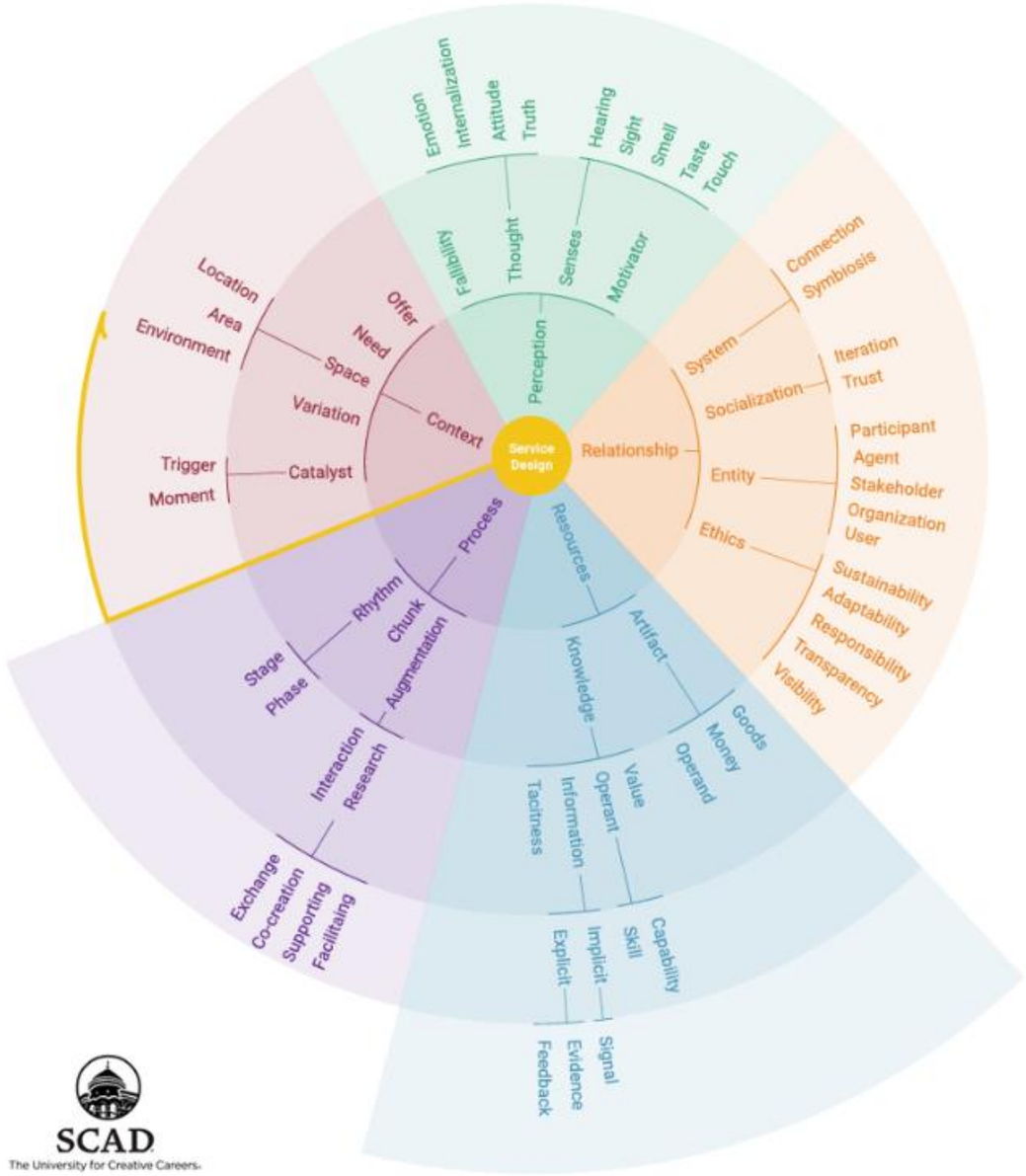
Analyse spatiale - 2016



Design d’interactions - 2016

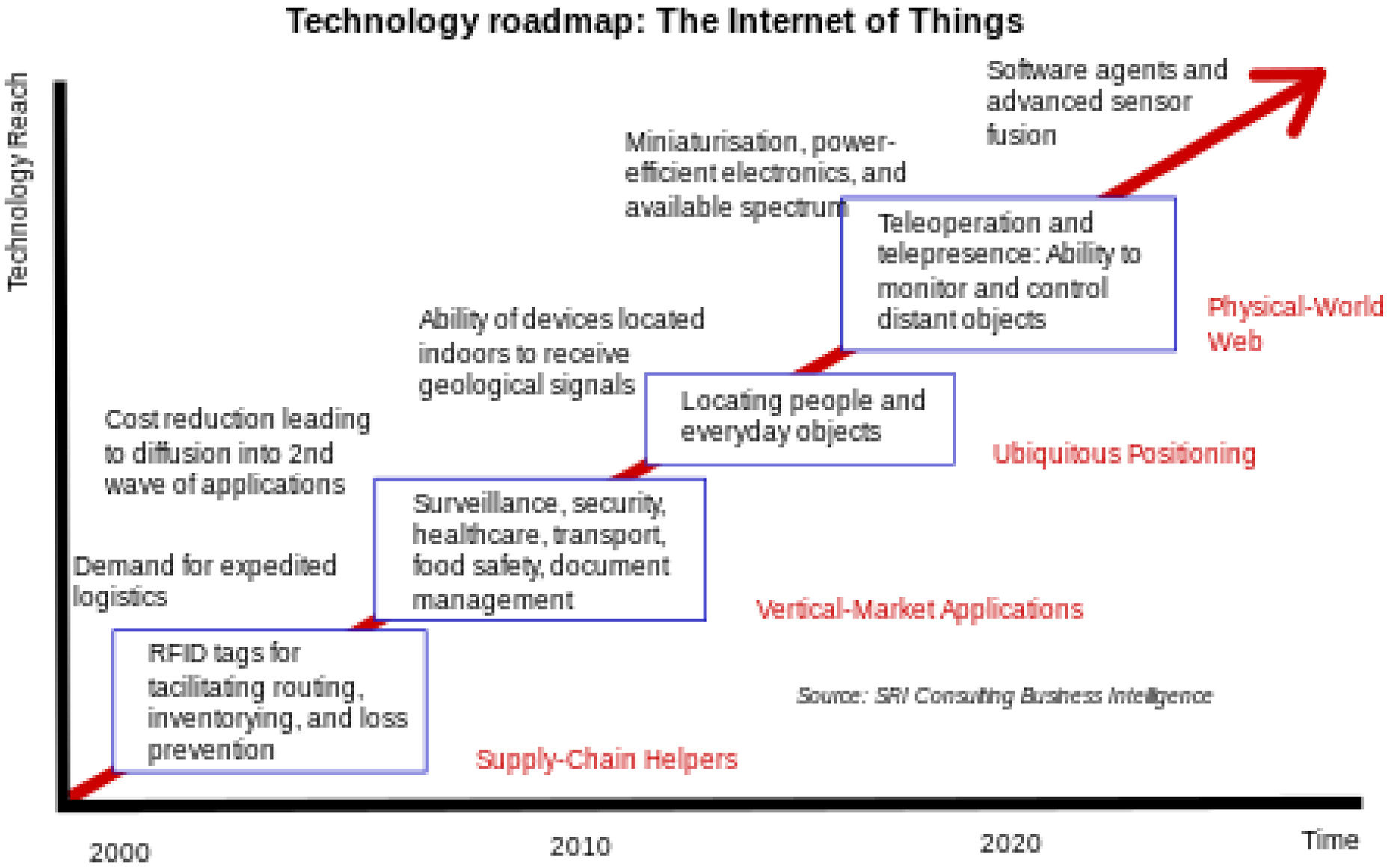


Design de services / Architecture d’expériences - 2016

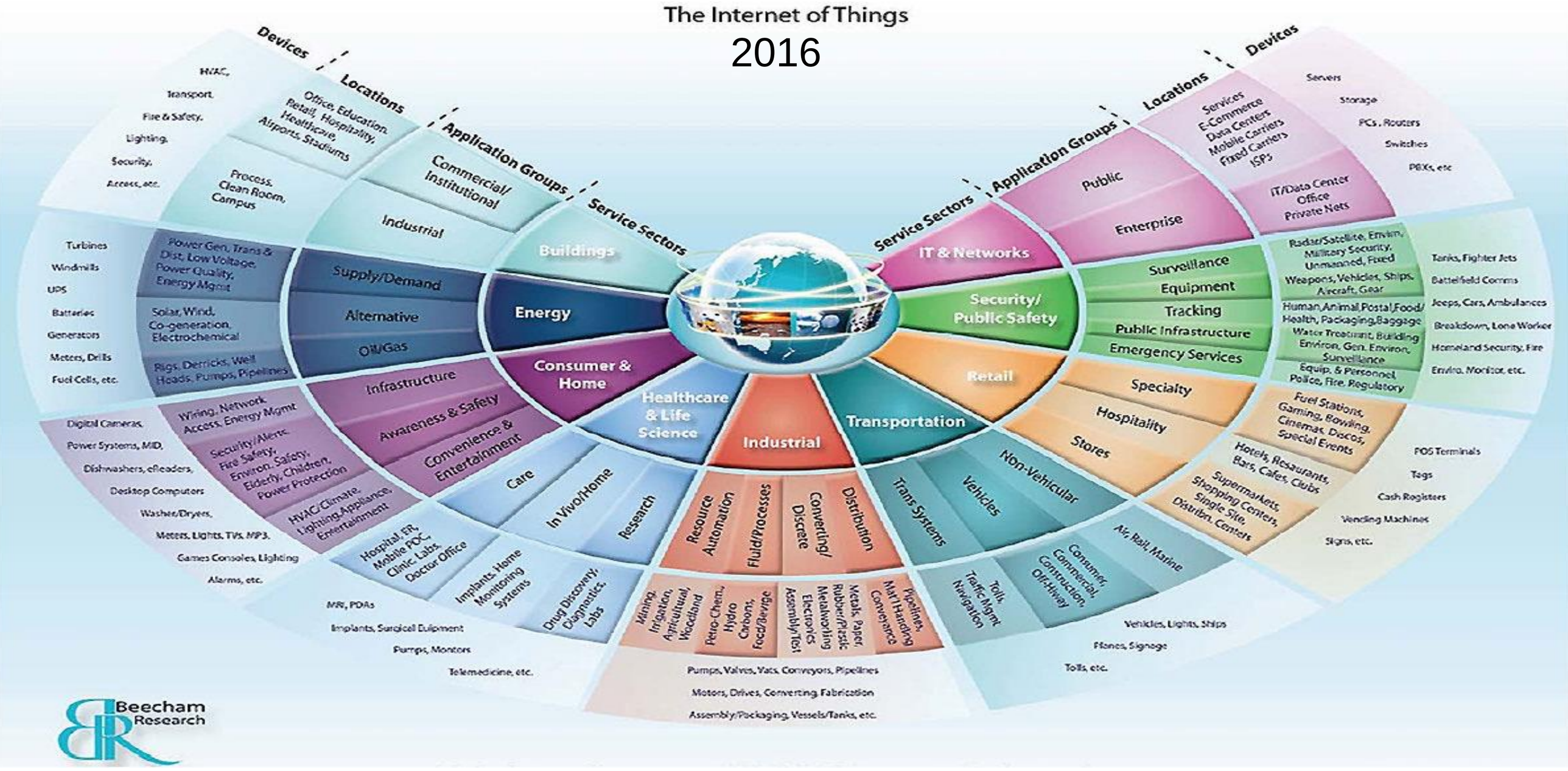


SCAD
The University for Creative Careers.

L’internet des objets - 2000



IIoT et IoT


The Internet of Things
2016
Devices
Locations
Application Groups
Service Sectors
HVAC,
Transport,
Fire & Safety,
Lighting,
Security,
Access, etc.
Office, Education, Retail, Hospitality, Healthcare, Airports, Stadiums
Process, Clean Room, Campus
Commercial/ Institutional
Industrial
Buildings
Energy
Consumer & Home
Healthcare & Life Science
Industrial
Transportation
Retail
Security/ Public Safety
IT & Networks
Public
Enterprise
Services
E-Commerce
Data Centers
Mobile Carriers
Fixed Carriers
ISPs
Servers
Storage
PCs, Routers
Switches
PBXs, etc
IT/Data Center
Office
Private Nets
Turbines
Windmills
UPS
Batteries
Generators
Meters, Drills
Fuel Cells, etc.
Power Gen, Trans & Dist, Low Voltage, Power Quality, Energy Mgmt
Supply/Demand
Solar, Wind, Co-generation, Electrochemical
Alternative
Rigs, Derricks, Well Heads, Pumps, Pipelines
Oil/Gas
Digital Cameras,
Power Systems, MID,
Dishwashers, eReaders,
Desktop Computers
Washer/Dryers,
Meters, Lights, TVs, MP3,
Games Consoles, Lighting
Alarms, etc.
Wiring, Network Access, Energy Mgmt
Infrastructure
Security/Alerts, Fire Safety, Environ. Safety, Elderly, Children, Power Protection
Awareness & Safety
HVAC/Climate, Lighting,Appliance, Entertainment
Convenience & Entertainment
Hospital ER, Mobile POC, Clinic Labs, Doctor Office
Care
MRI, PDAs
Implants, Surgical Equipment
Pumps, Monitors
Telemedicine, etc.
Implants, Home Monitoring Systems
In Vivo/Home
Drug Discovery, Diagnostics, Labs
Research
Mining, Irrigation, Agricultural, Woodland
Petro-Chem, Hydro Carbons, Food/Beverage
Resource Automation
Metals, Paper, Rubber/Plastic, Metalworking, Electronics Assembly/Test
Fluid/Processes
Pipelines, Mat'l Handling, Conveyance
Converting/ Discrete
Distribution
Pumps, Valves, Vacs, Conveyors, Pipelines
Motors, Drives, Converting, Fabrication
Assembly/Packaging, Vessels/Tanks, etc.
Trans Systems
Tolls, Traffic Mgmt Navigation
Non-Vehicular
Vehicles
Consumer, Commercial, Construction, Off-Highway
Air, Rail, Marine
Vehicles, Lights, Ships
Pilones, Signage
Tolls, etc.
Specialty
Hospitality
Stores
Hotels, Resaurants, Bars, Cafes, Clubs
SuperMarkets, Shopping Centers, Single Site, Distribn. Centers
Surveillance
Equipment
Tracking
Public Infrastructure
Emergency Services
Radar/Satellite, Environ, Military Security, Unmanned, Fixed
Weapons, Vehicles, Ships, Aircraft, Gear
Human,Animal,Postal,Food/ Health, Packaging,Baggage
Water Treatment, Building Environ. Gen. Environ. Surveillance
Equip. & Personnel, Police, Fire, Regulatory
Tanks, Fighter Jets
Battlefield Comms
Jeeps, Cars, Ambulances
Breakdown, Lone Worker
Homeland Security, Fire
Enviro. Monitor, etc.
Fuel Stations, Gaming, Bowling, Cinemas, Discos, Special Events
POS Terminals
Tags
Cash Registers
Vending Machines
Signs, etc.
Beecham Research

L’analyse spatiale et le Sensor Fusion pour orchestrer les expériences AR/VR

Des marqueurs physiques aux senseurs en réseau

RTLS (Real-Time Location System)— 2016

Real-Time Location Tracking

IMPROVES HOSPITAL AND PATIENT WORKFLOWS

ekahau

1 PATIENT FLOW: PATIENT WAIT TIME TRACKING

Classify patients by appointment type and track their wait times in zones. Improve future scheduling and patient satisfaction while rewarding your most responsive caregivers.

1 PATIENTS RECEIVE Active RFID badges when checking-in.

2 TRACK PATIENTS by zone such as waiting room, exam room, radiology and benchmark ideal wait times by appointment type.

4 IMPROVE PATIENT FLOW Improve patient flow, satisfaction and safety.

3 ALERT THE NEAREST CAREGIVER if wait time benchmarks are about to be exceeded. Notify patients where to go next using text prompts, and visualize bottlenecks.

5 LET THEIR FAMILY KNOW how long until they're ready... and where they are in the care process.

THE AVERAGE PATIENT WAIT TIME for an appointment in the U.S. is 20 minutes and 26 seconds.

Vitals 2012 Annual Report

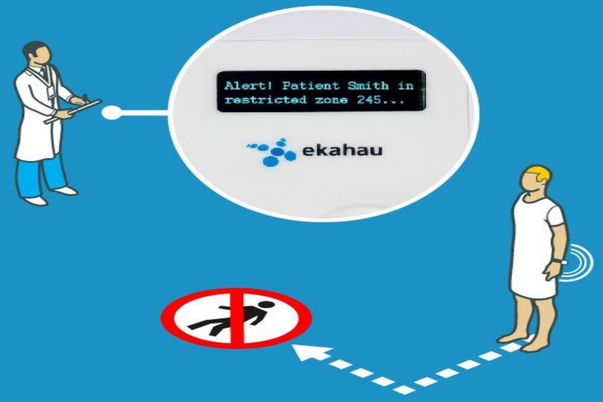
WAITING BEYOND 20 MINUTES for an appointment is the tipping point for patients when they feel like their time is being wasted.

Medical Economics 2013 article

2 PATIENT FLOW: ELOPEMENT PREVENTION

Improve patient safety by keeping them ambulatory and visibility with a panic button on the go and searchable web-based maps.

Send alerts to their caregiver if they wander beyond safe, geo-fenced boundaries.



UP TO 100% PREVALENCE OF WANDERING BY AMBULATORY RESIDENTS WITH DEMENTIA in nursing homes is staggering — estimates of up to 100% have been reported.

Source: ECRI

3 PATIENT FLOW: IMPROVE COORDINATION AND COMMUNICATIONS BETWEEN CAREGIVERS

Coordinate patient treatment processes by notifying staff assigned to patients of their location, next procedure and wait time.

Allow caregivers to accept work orders and improve speed of admission, discharge and transport procedures.

Send mass notifications to all or some badge holders regarding patients and processes.

See how long caregivers are spending on average at the bedside and correlate it to patient satisfaction.

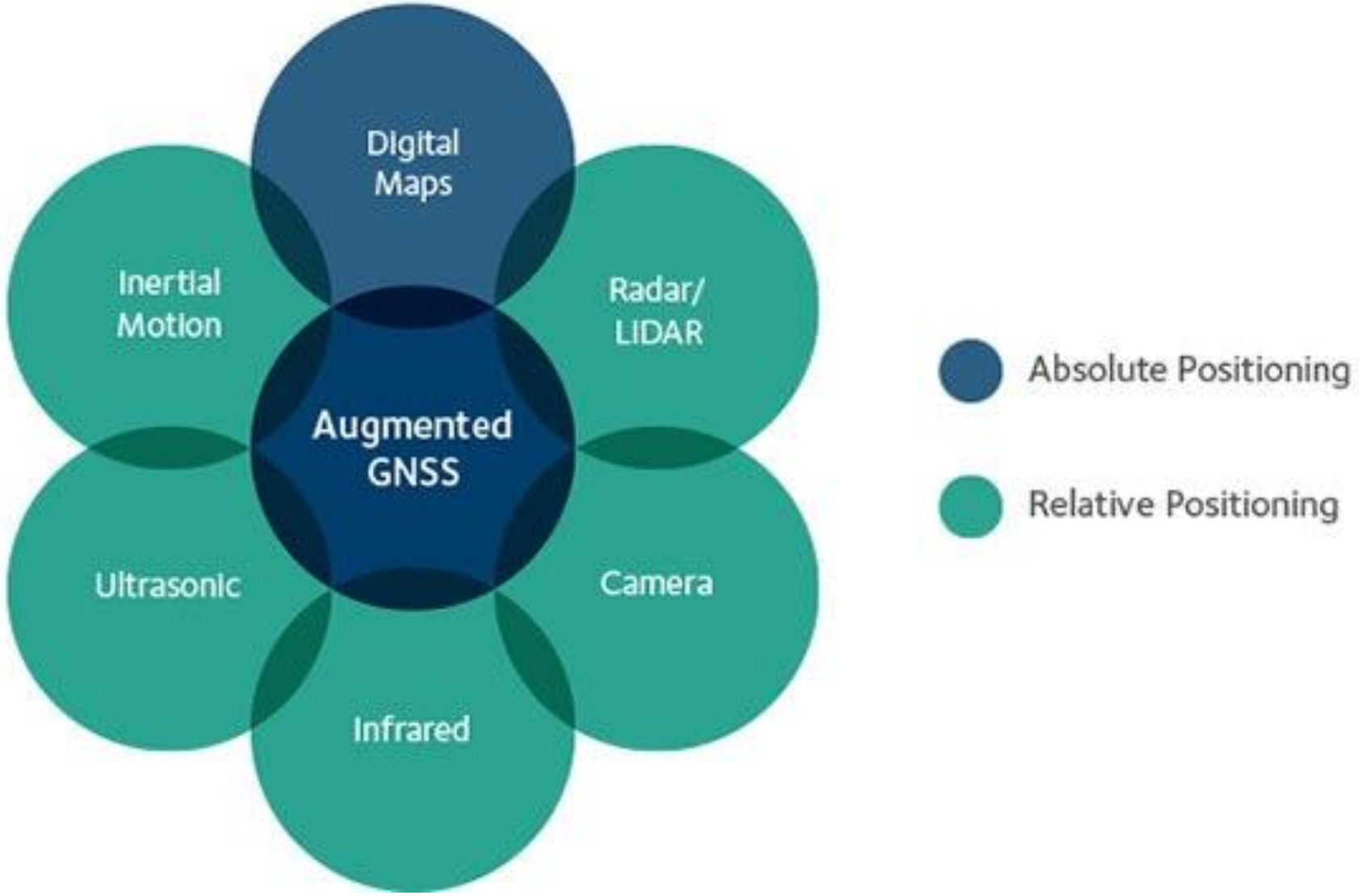
$4,167 SAVED 30% OF NURSES ON AVERAGE REPORT SPENDING AT LEAST ONE HOUR PER SHIFT SEARCHING FOR EQUIPMENT. Assuming a $66,690 average salary, an estimated $4,167 dollars is lost per year, per nurse, on equipment searches.

Source: Nursing Times

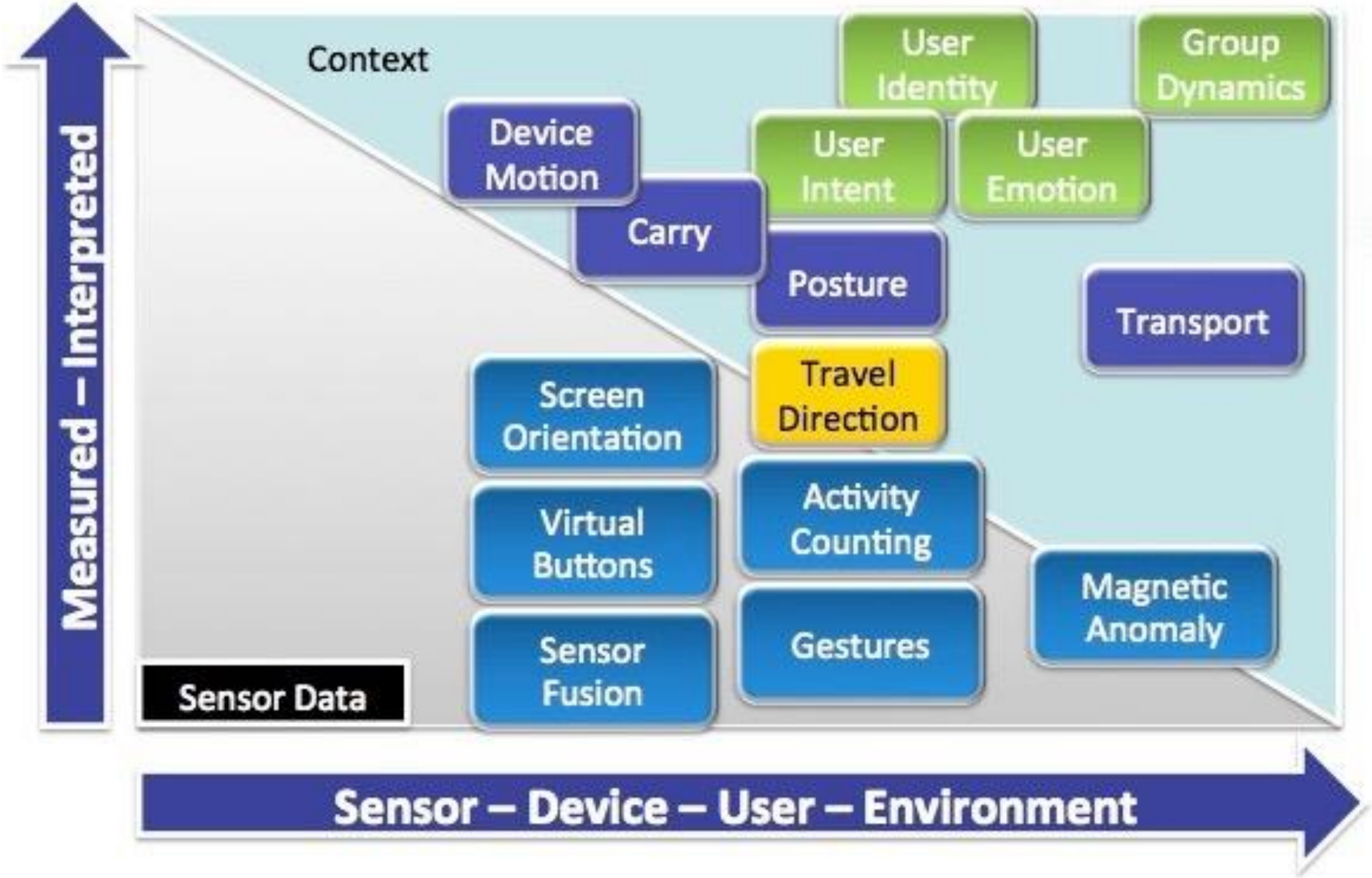
The Real-Time Location Systems (RTLS) market is estimated to reach **$4 billion** by 2022 reports Transparency Market Research.

See the big picture

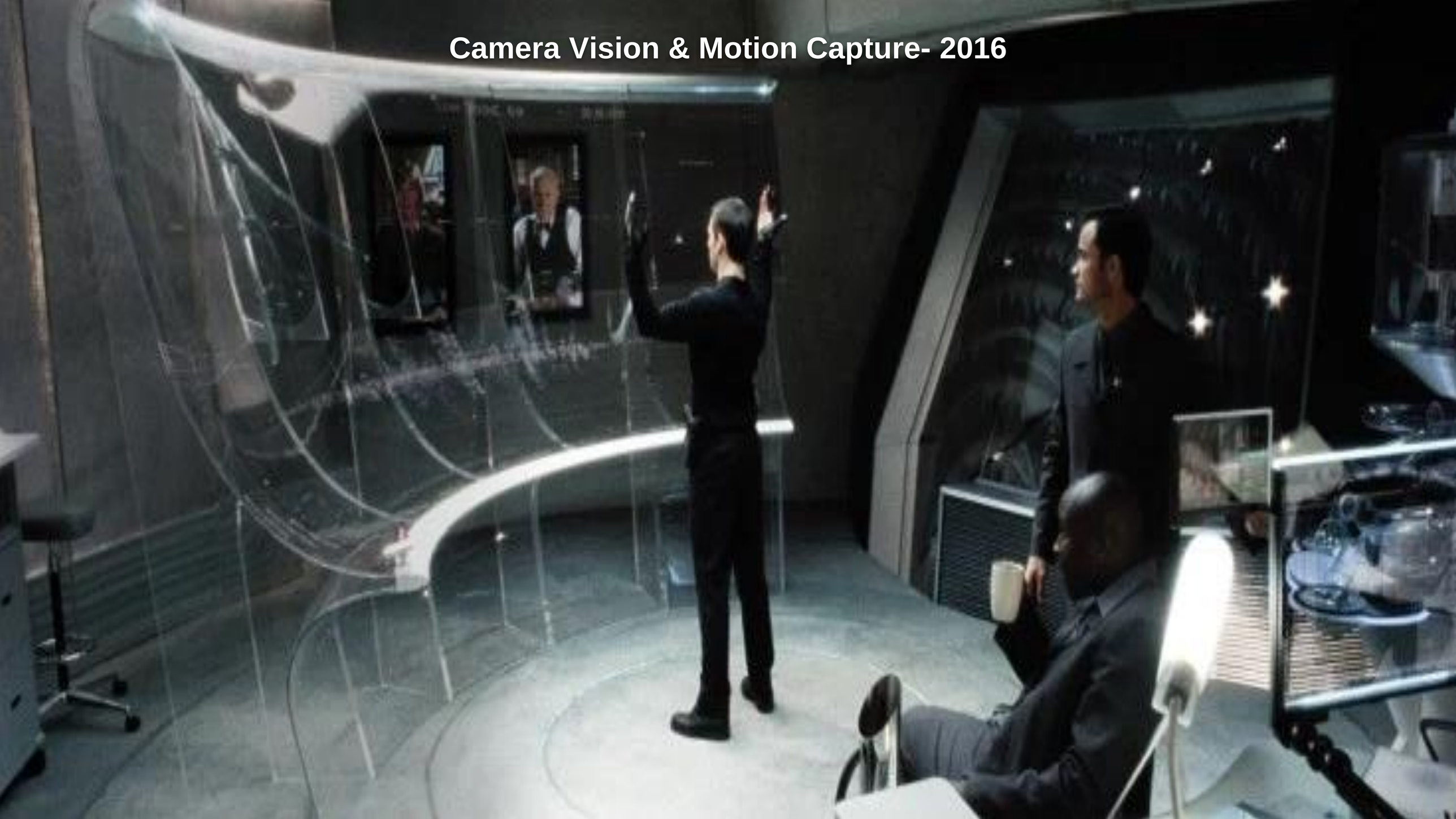
Sensor Fusion - 2016



Sensor Fusion - 2016

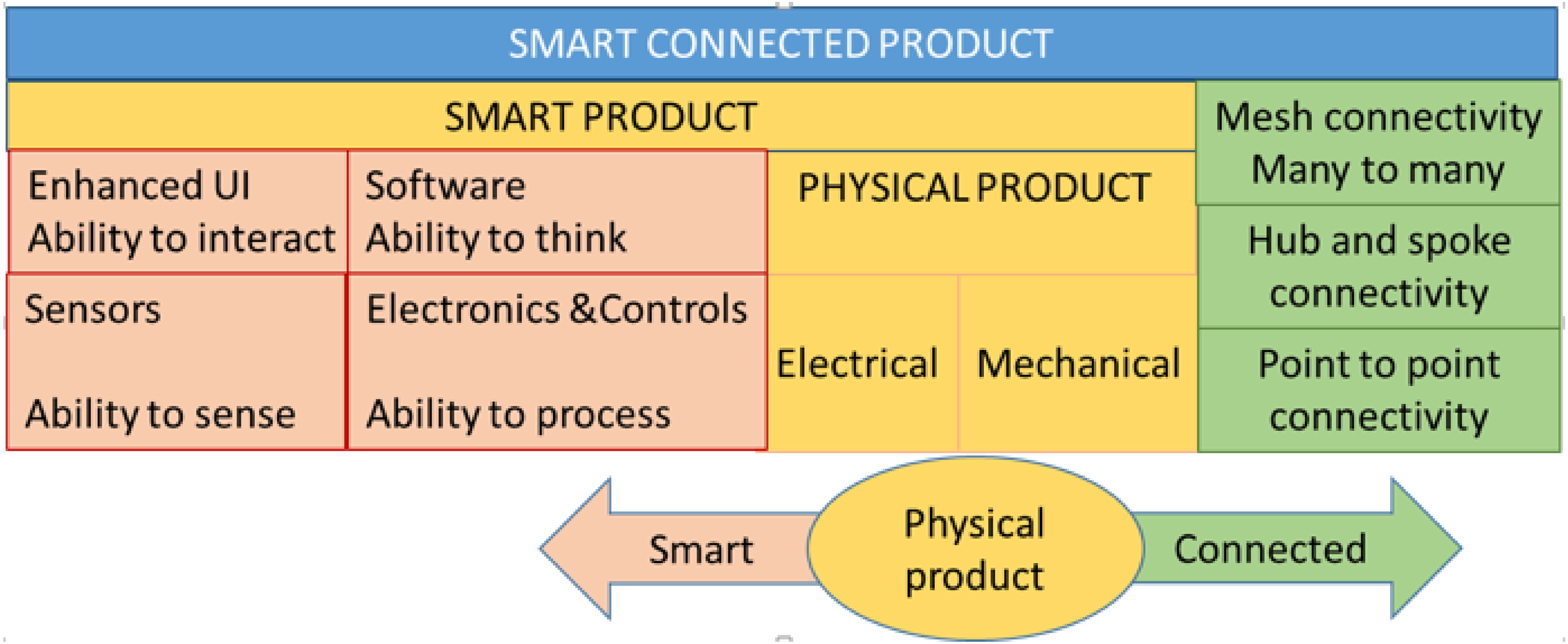


Camera Vision & Motion Capture- 2016

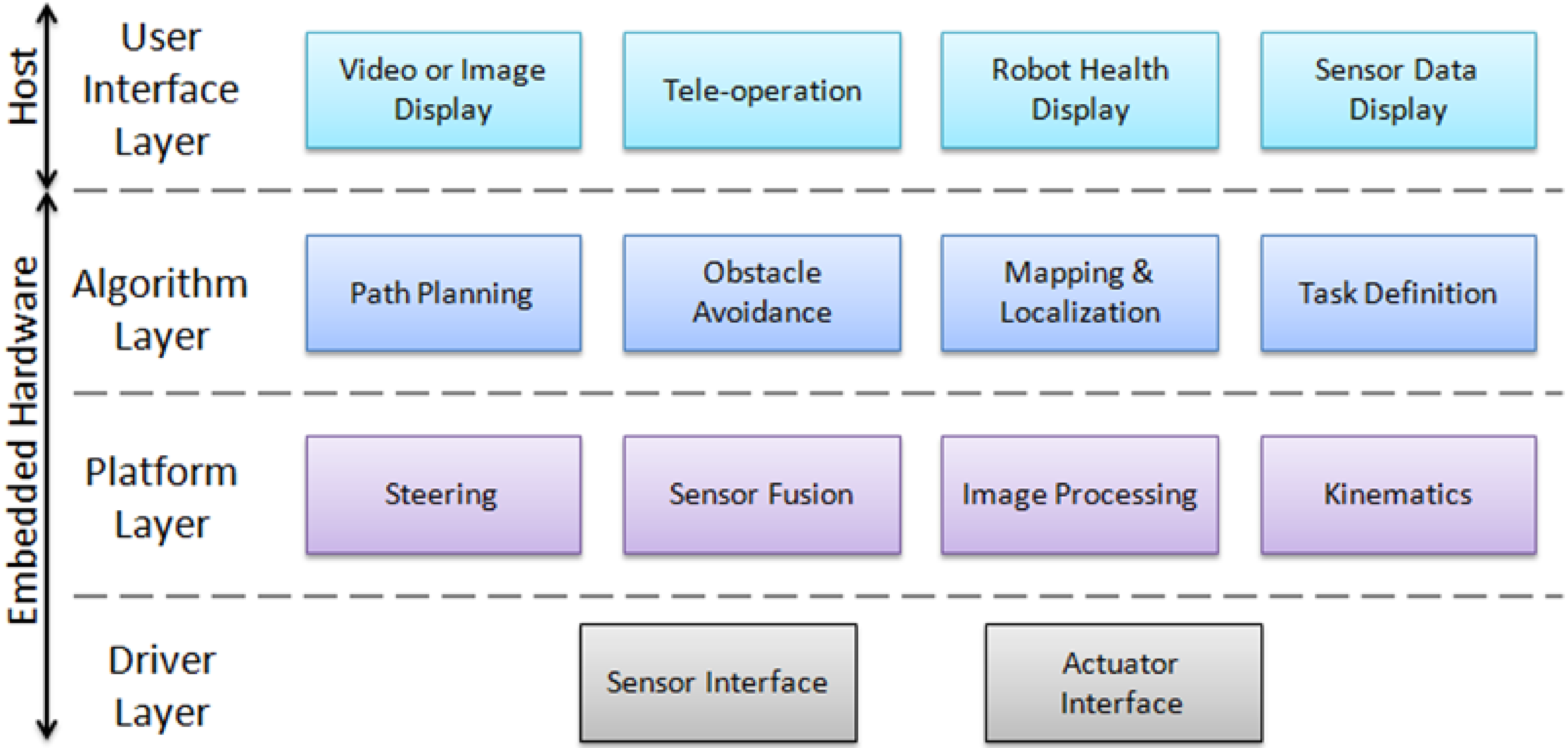


L’intelligence machine et l’intelligence artificielle

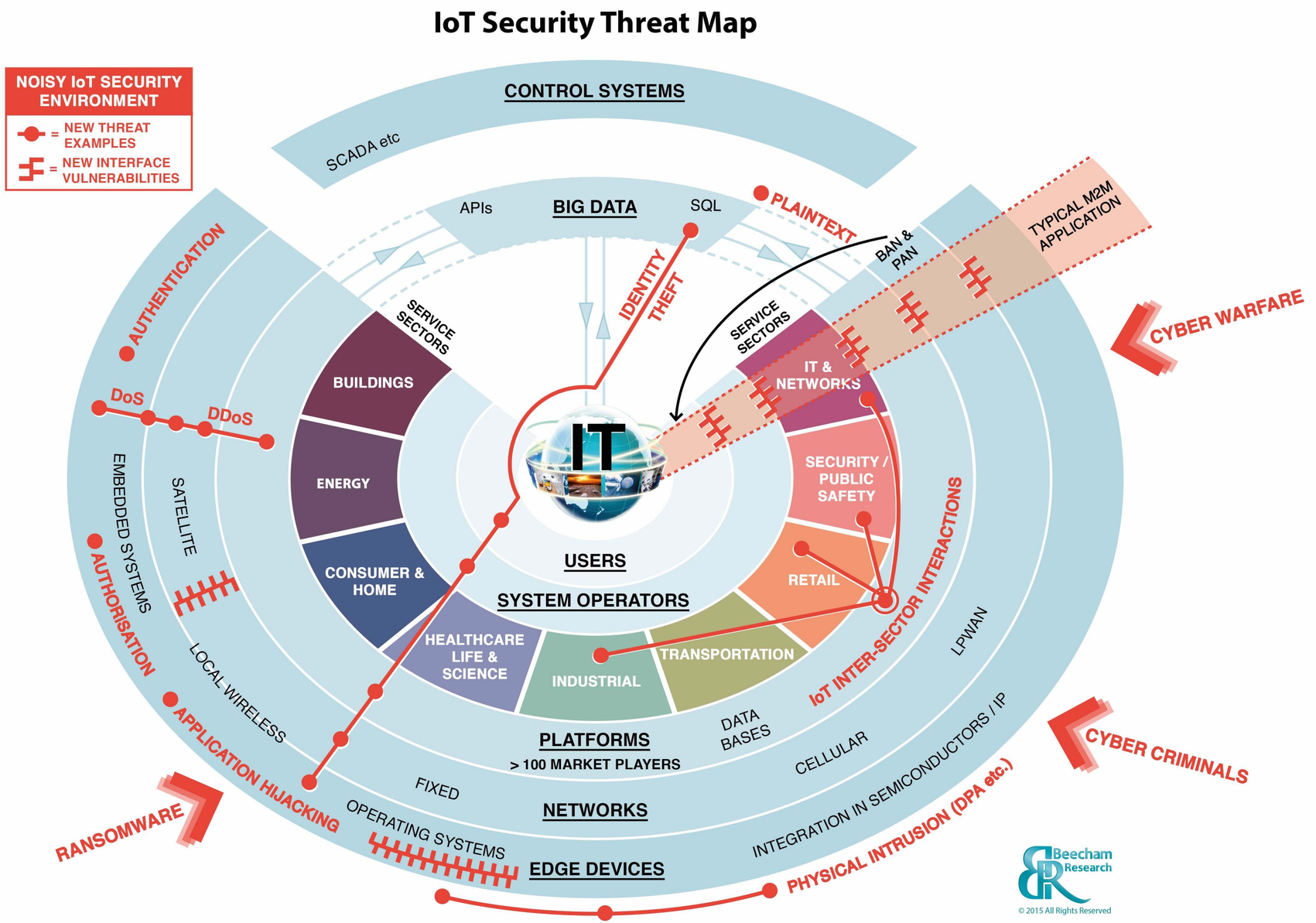
De la connectivité à la capacité de raisonner



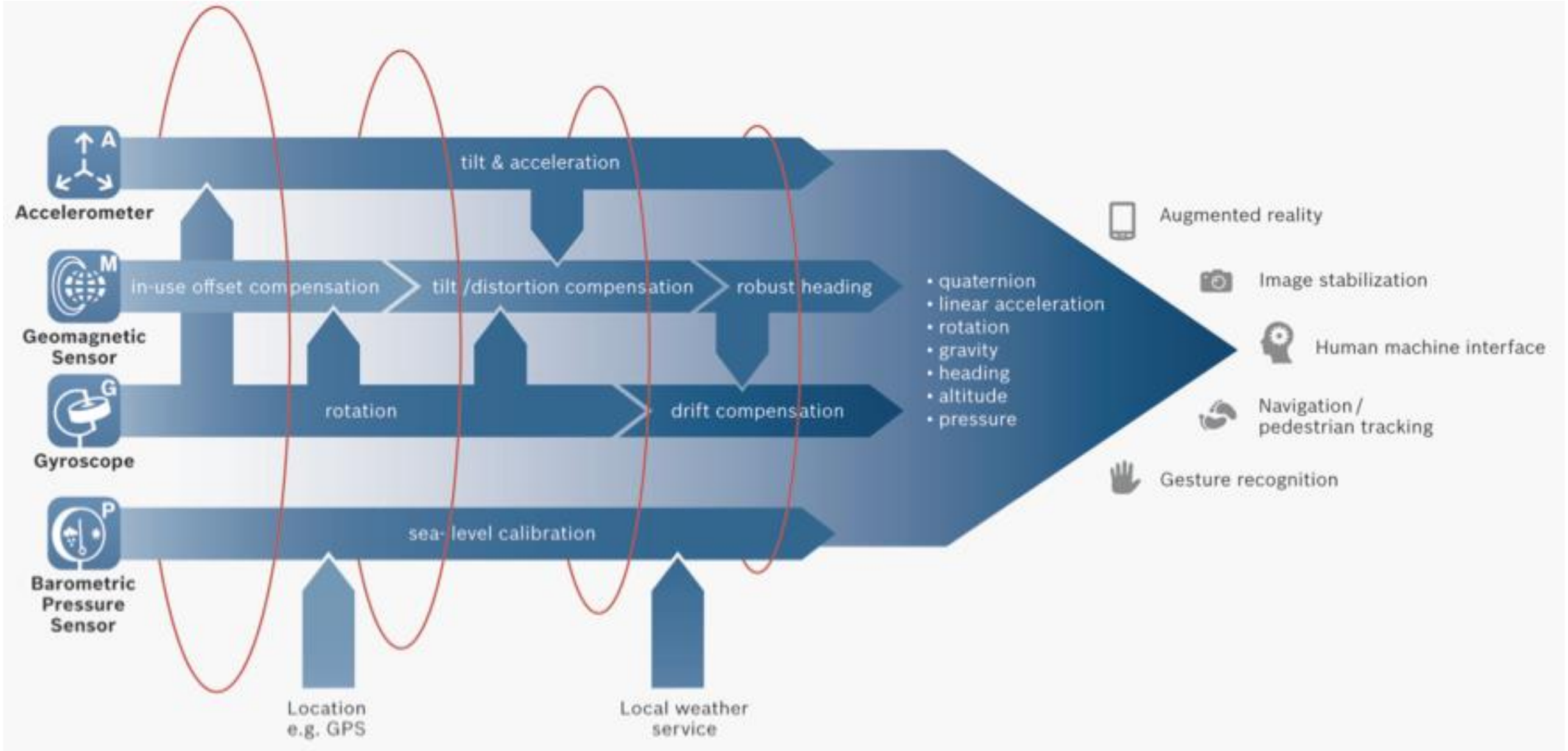
Fabriquer un robot c’est comme fabriquer une place publique sensible ?



Niveaux d’adoption



Sensor Fusion - 2016



2007: TOUCH SCREEN COMPUTING FINALLY ARRIVES

The iPhone was not the first touch screen by any means, but it was the most significant, demonstrating that we really wanted to get our hands on, even inside, the interface, as if yearning to touch the actual data and feel the electrons passing through the display. We were now almost making contact, just a thin sheet of glass between us. Paradoxically, the visual metaphors had hardly changed in over 20 years. Maybe this was all that was needed.

2009: KINECT BLOWS IT ALL WIDE OPEN AGAIN

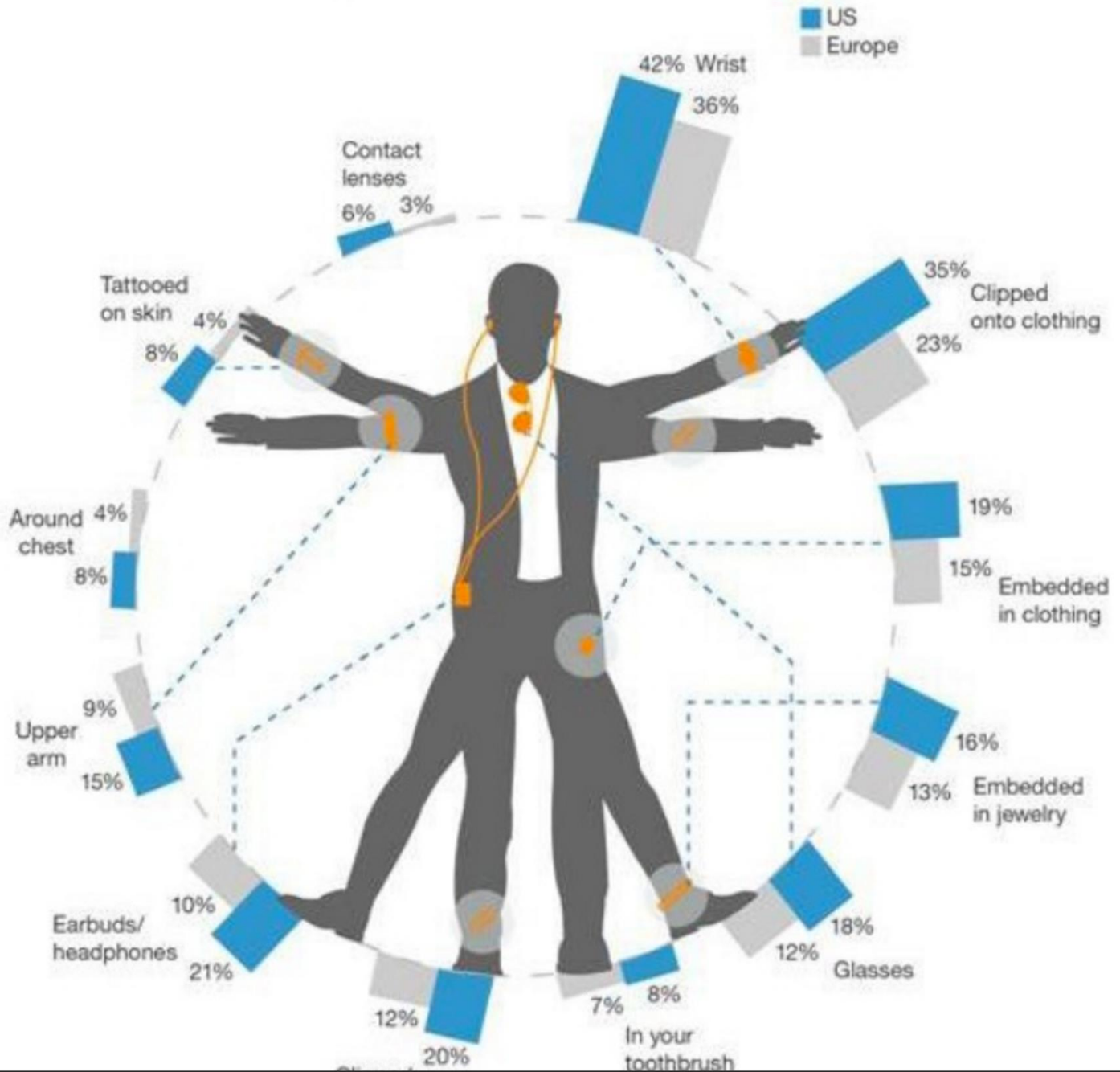
Of course, just when everything seems to be stable and static, a wild and unpredictable event occurs. Kinect (and let's not forget the honorable Wii) showed a new way of interacting in which the body becomes the controller. The game format allows a one-to-one relationship between the physical body and the virtual body. A leg movement corresponds to a kick on screen; a wave of a hand becomes a haymaker knocking out your opponent. This is very satisfying and instantly accessible, but in the end, is no good for anything more complex than role-playing.

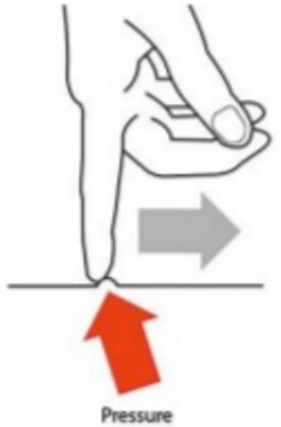
2011 SIRI, THE NO-INTERFACE INTERFACE

For the third time in 30 years, Apple took an existing and poorly implemented technology and made it work, properly, for the masses. Siri does work and is a leap forward in terms of precision. But it is hard to say it is any more sophisticated than a 1980's text-based adventure. Combine a few verbs and nouns together and come back with a relevant response. Still, Siri understands you no better than the primitive text parser.

So when put in a timeline, it is clear that we have dramatically shifted the meeting point of man and machine. It is now almost entirely weighted toward the human languages of symbols, words, and gestures. Nevertheless, that last inch seems to be a vast chasm that cannot be breached. We are yet to devise interfaces that can effortlessly give us what we want and need. We still must learn some kind of rules and deal with an interpretation layer that is never wholly natural.

"How interested would you be in wearing/using a sensor device, assuming it was from a brand you trust or offered a service that interests you?"





Pressure

Illusion of pressure created by carefully timed and tuned vibration.

Muse is your personal meditation assistant

Cables are past.

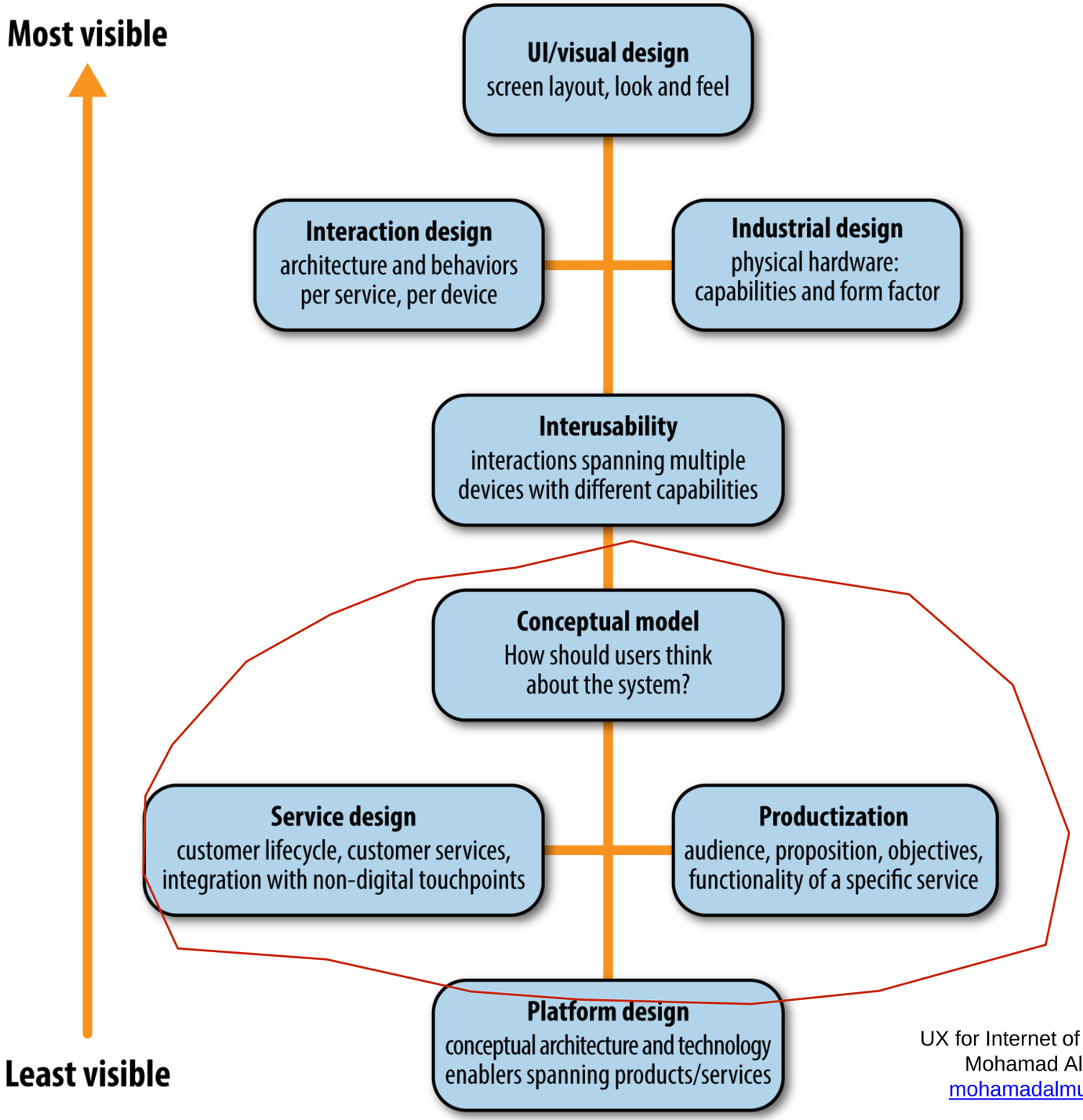
The new headphones comes with your iPhone right in the box.

Meet Nod

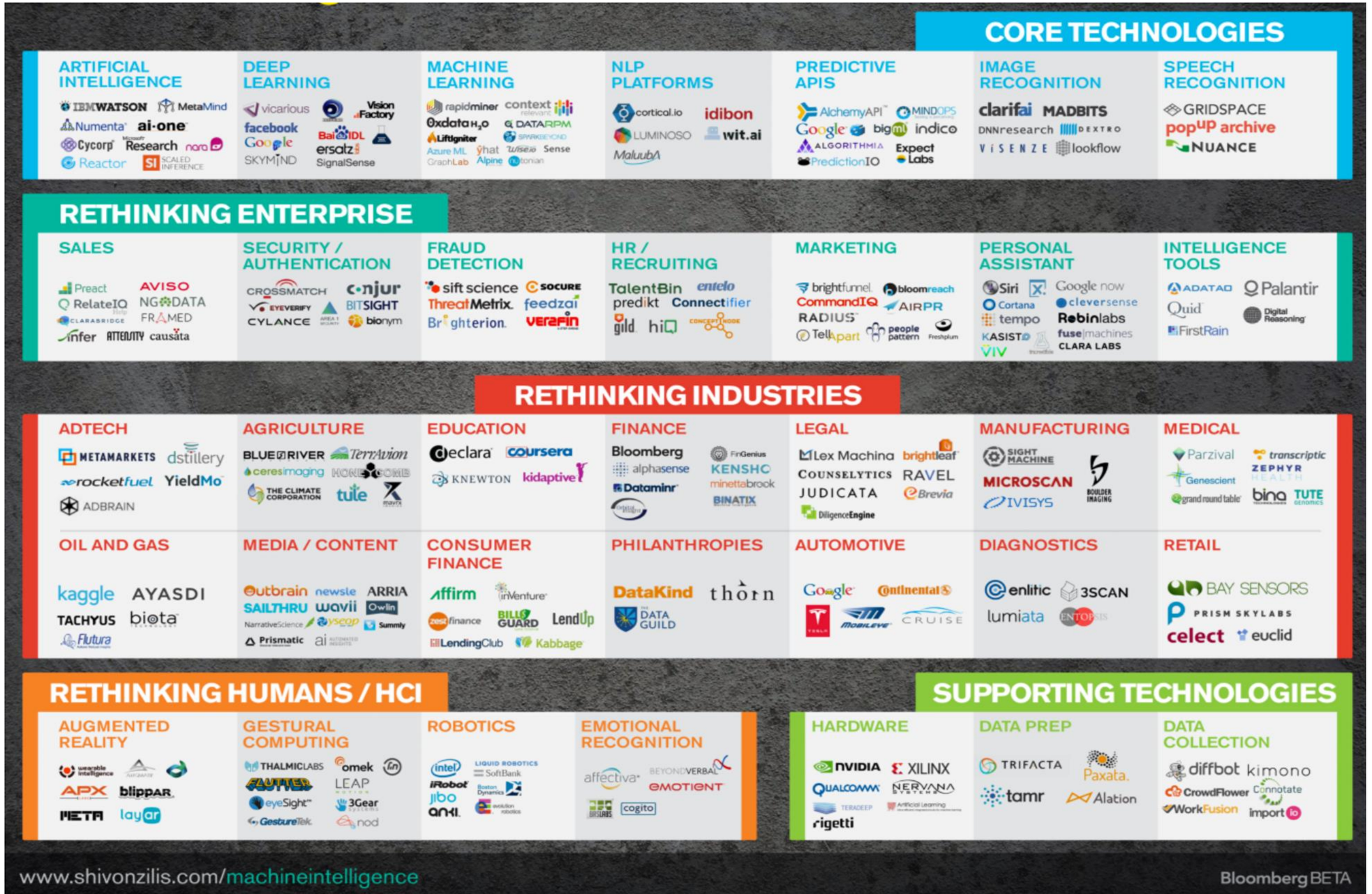
Beautiful,
touchless,
interaction with limitless possibilities

Nod seamlessly transforms your movements into commands. Using gestures, motion-tracking, and tactile input, Nod allows you to engage with virtually any immersive platform. Use precision skeletal tracking to fully experience VR environments, command drones with a wave of your hand, and even interact with your favorite smart devices.

Photonic lightfield chip - 2017


Most visible
UI/visual design
screen layout, look and feel
Interaction design
architecture and behaviors
per service, per device
Industrial design
physical hardware:
capabilities and form factor
Interusability
interactions spanning multiple
devices with different capabilities
Conceptual model
How should users think
about the system?
Service design
customer lifecycle, customer services,
integration with non-digital touchpoints
Productization
audience, proposition, objectives,
functionality of a specific service
Platform design
conceptual architecture and technology
enablers spanning products/services
Least visible

Intelligence machine / Machine Learning - 2016



Merci de votre attention !

Jonathan Bélisle
jbelisle@helloarchitekt.com

@wuxia

Références:

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29 - http://thegovlab.org/the-future-of-public-space-analytics/
30 - http://design.cmu.edu/content/masters-research-foci-0
31 - https://www.linkedin.com/pulse/5-most-important-aspects-designing-service-taxonomy-manhaes-dr-
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