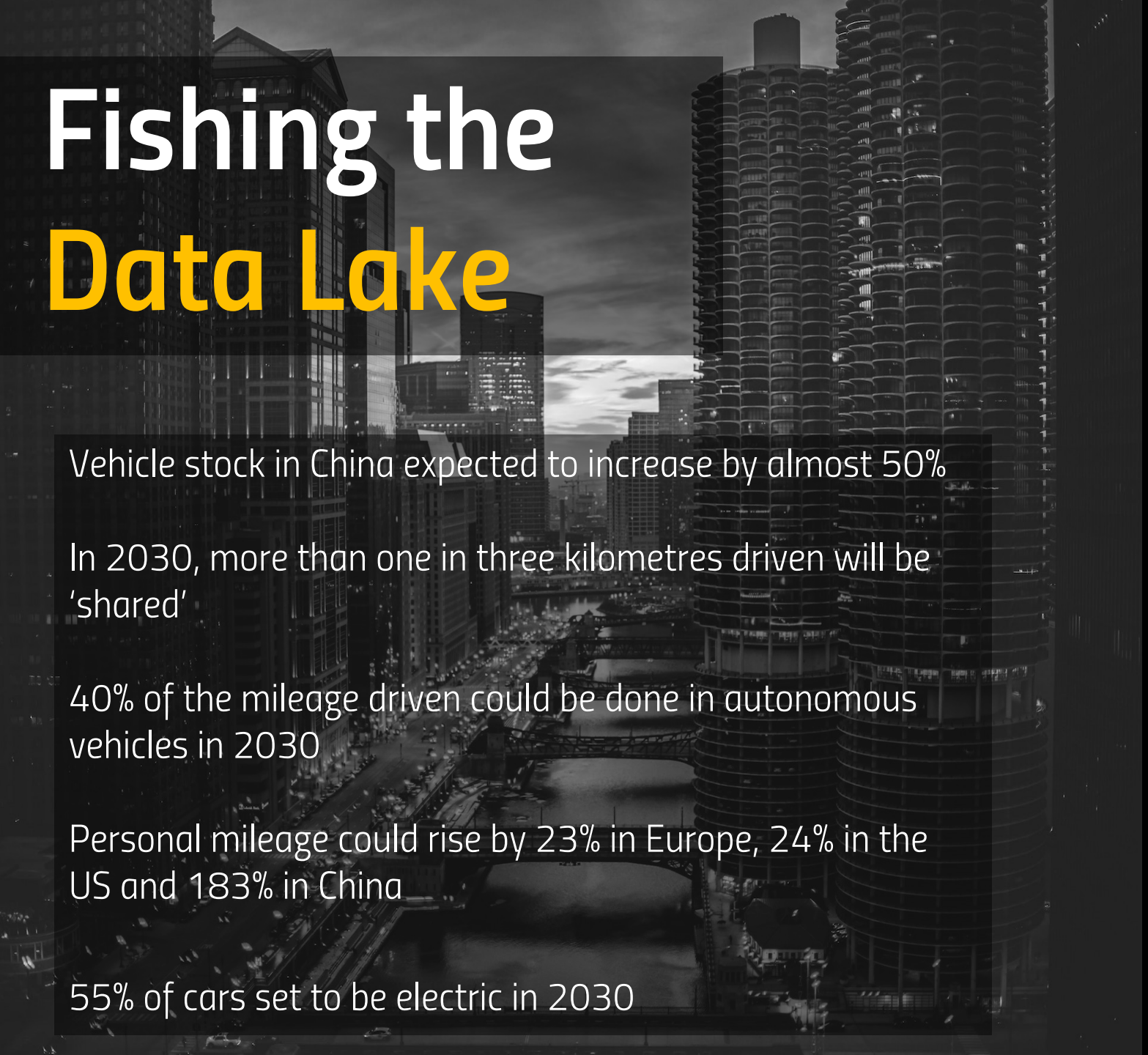
# Did someone say Teleportation?

## The Power of New Spatial Narratives

Derek Woodgate

the Futures Lab



# Fishing the Data Lake

Vehicle stock in China expected to increase by almost 50%

In 2030, more than one in three kilometres driven will be 'shared'

40% of the mileage driven could be done in autonomous vehicles in 2030

Personal mileage could rise by 23% in Europe, 24% in the US and 183% in China

55% of cars set to be electric in 2030

World GDP to double by 2030

Reduction in holiday and business travel

Air passenger traffic to double in 15 years;

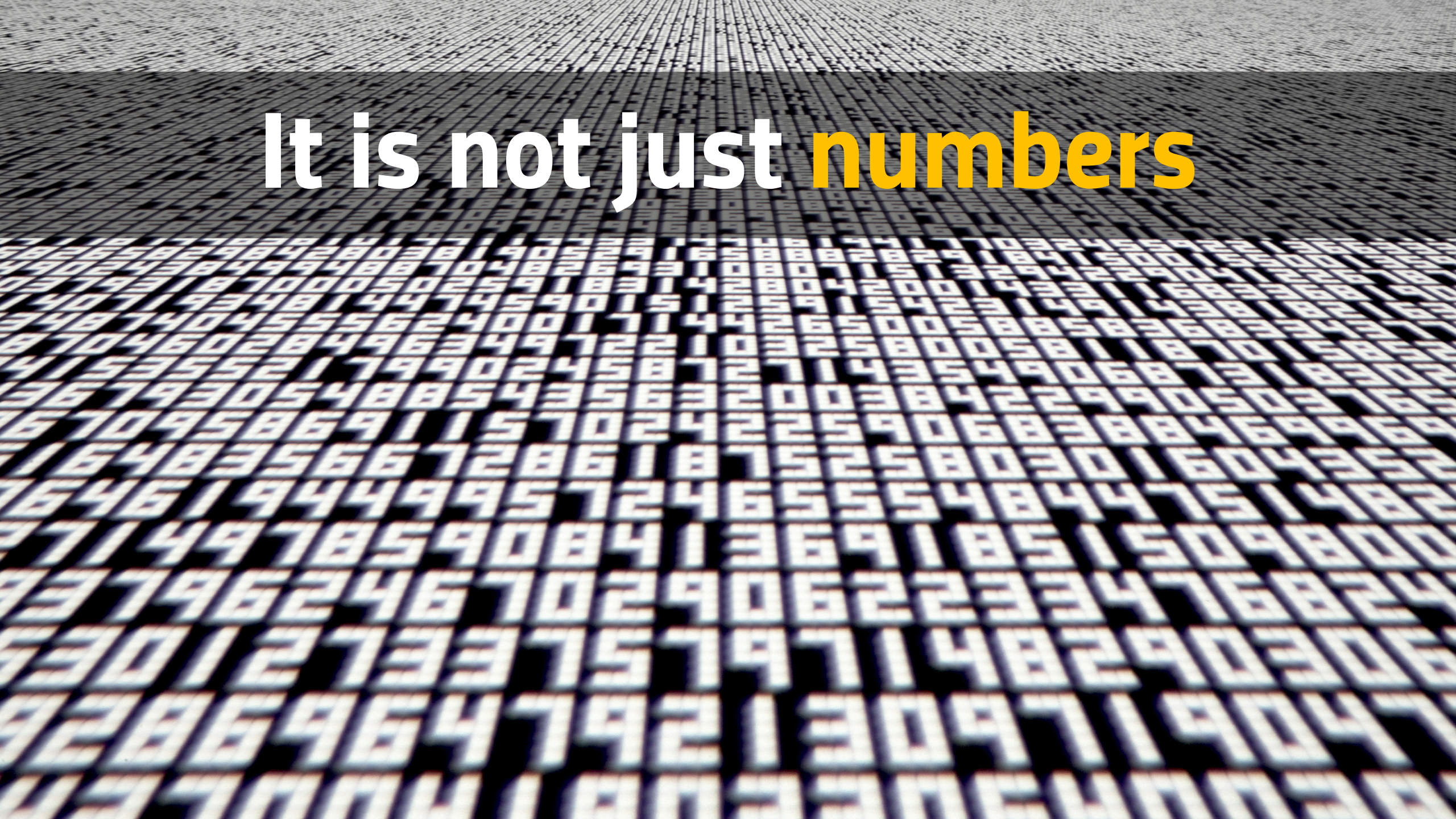
Air freight to triple in 20 years; and

Port handing of maritime containers worldwide to quadruple by 2030.

Sources: OECD, PWC, World Bank

# Connectivity between cities

- Extra 2 billion city dwellers by 2050
- 70% of population will be urban by 2040


It is not just numbers

# ...even the potential of DeepMind?

No human intervention : No historical data

# ...or emerging technologies

Hyperloop

Space travel

Driverless pods

MAGLEV or Skylon

Multimodal vehicles

Smart maritime

Self-learning AI

Supercavitation

IOT connectivity

VR/AR simulated training

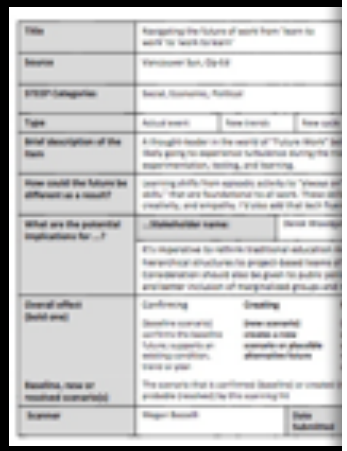
Plastic roads

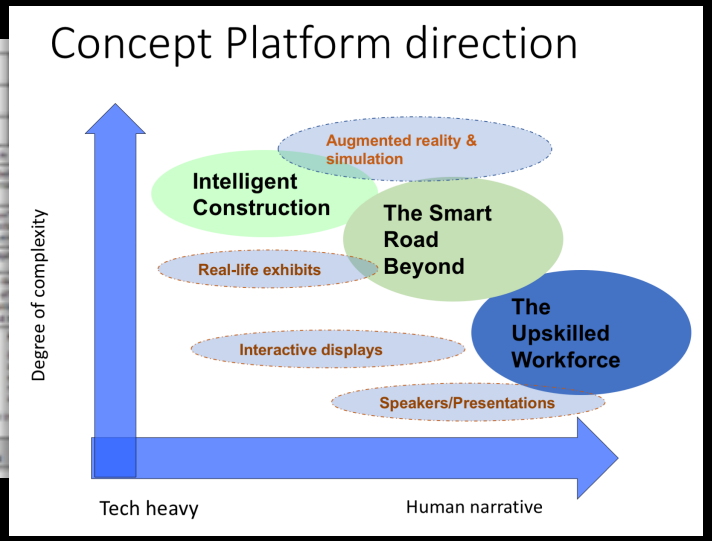
Self-healing surfaces

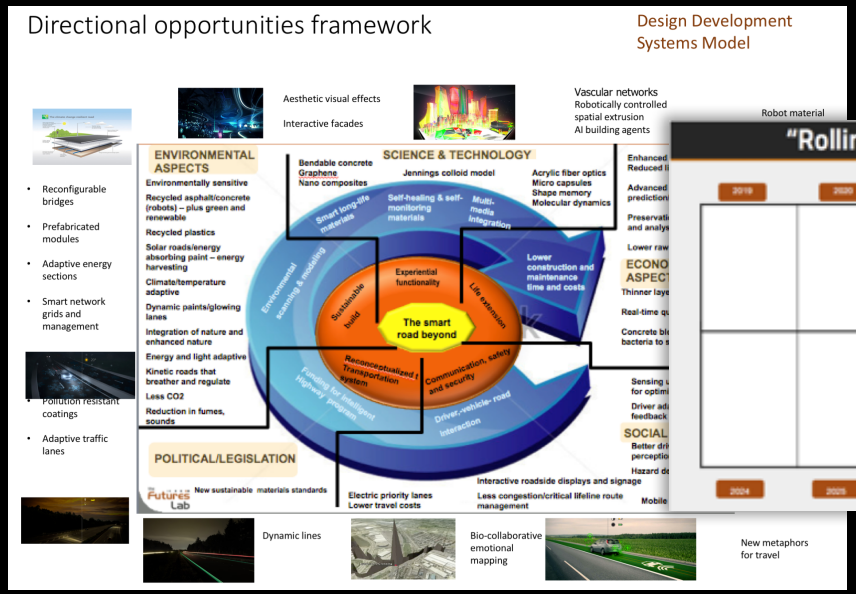
Identify disruptive
and harmonized
opportunities

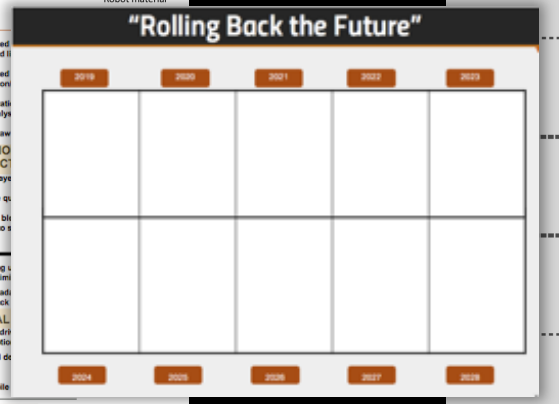
# Creating the future

## Leveraging discontinuity





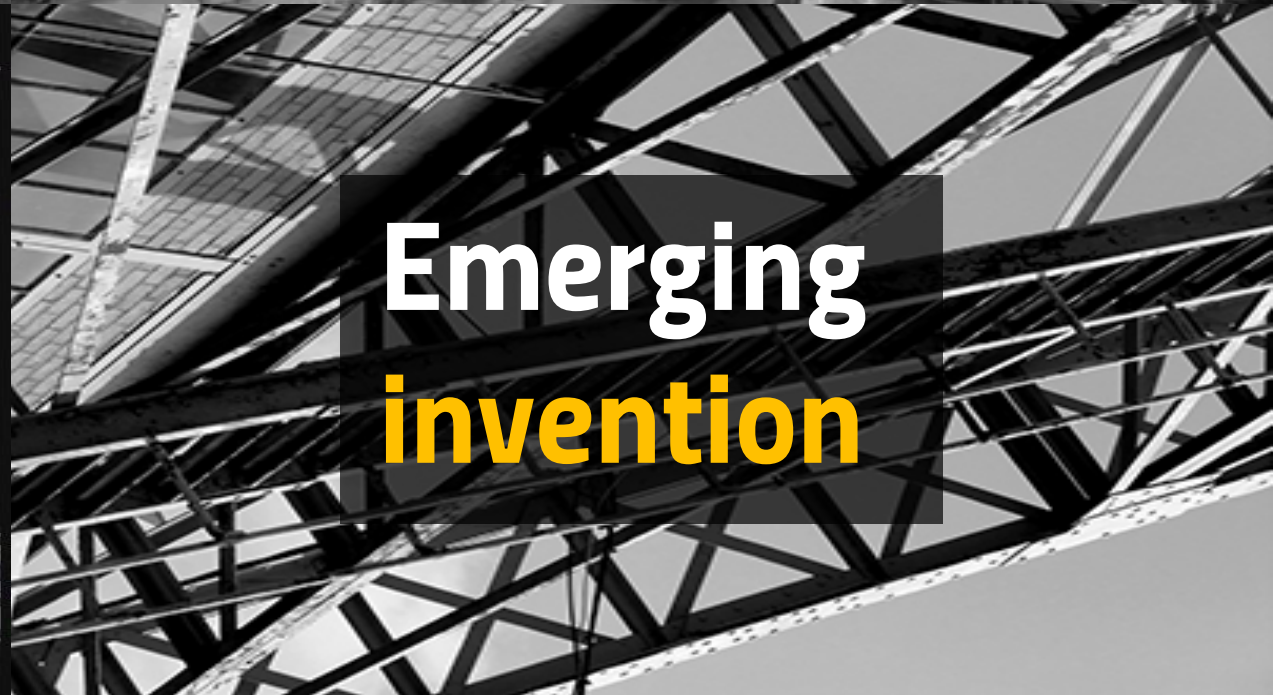

| | | |
|---|---|---|
| Define and augment scope | Assess the present | |
| Determining influences | Environmental scanning & wide angled lense | Stage 1 FutureFraming |
| Clustering influences | Dynamic systems modeling | |
| Establishing future leverage points | Causal Layered Analysis | |
| Scanning & STEEP filters | Horizon scanning | Stage 2 FuturePulsing |
| Knowledge Bank | Pettern recognition | |
| Modeling future triggers/ drivers | Cross impact analysis | Stage 3 FutureMapping |
| Developing platforms | Futures Wheel | |
| Opportunity map | Concept mapping | Stage 4 FutureScaping |
| Scenarios | Think like a DJ & Narrative thinking | |
| Preferred scenario | Scenario evaluation | Stage 5 FutureTuning |
| Directional strategic plan | Directional strategic plan | Stage 6 FutureFabbing |
| Rolling Back the Future | Backcasting | |

Think Like a DJ
Nano : Bio : Robo : Neuro

## Power play

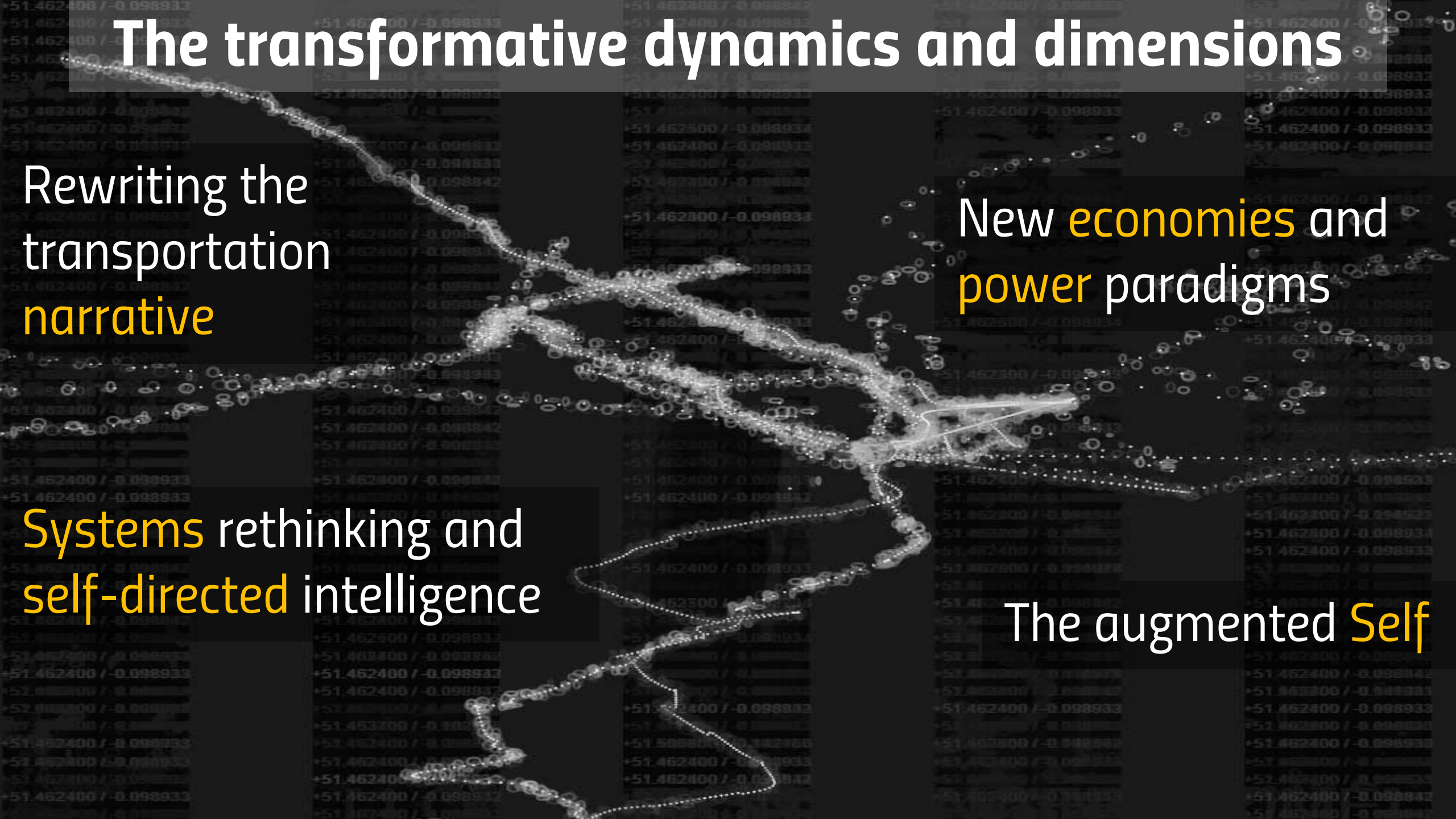
## Socio-cultural change

## Alternative visioning



## Emerging invention

# The transformative dynamics and dimensions



Rewriting the transportation narrative

New economies and power paradigms

Systems rethinking and self-directed intelligence

The augmented Self

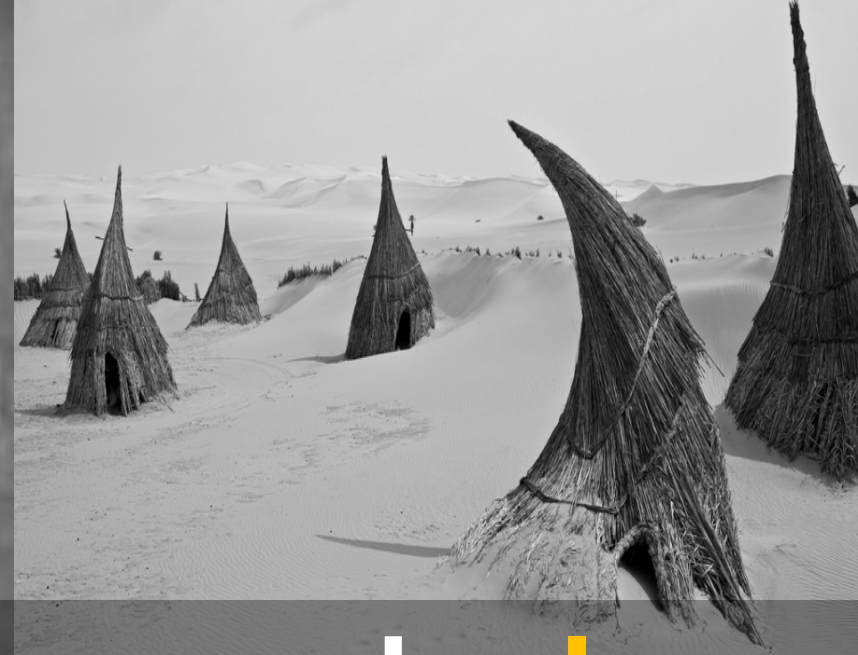
# 1.

# Rewriting the transportation narrative

Physical : Virtual : Cognitive

# The perfect vs. imperfect canvas

# Leveraging disruption



## Future uses and values

Routes : Navigation : Transport : Goods : Safety : Security : Delivery : Legislation

# A road of new experiences

Curated value

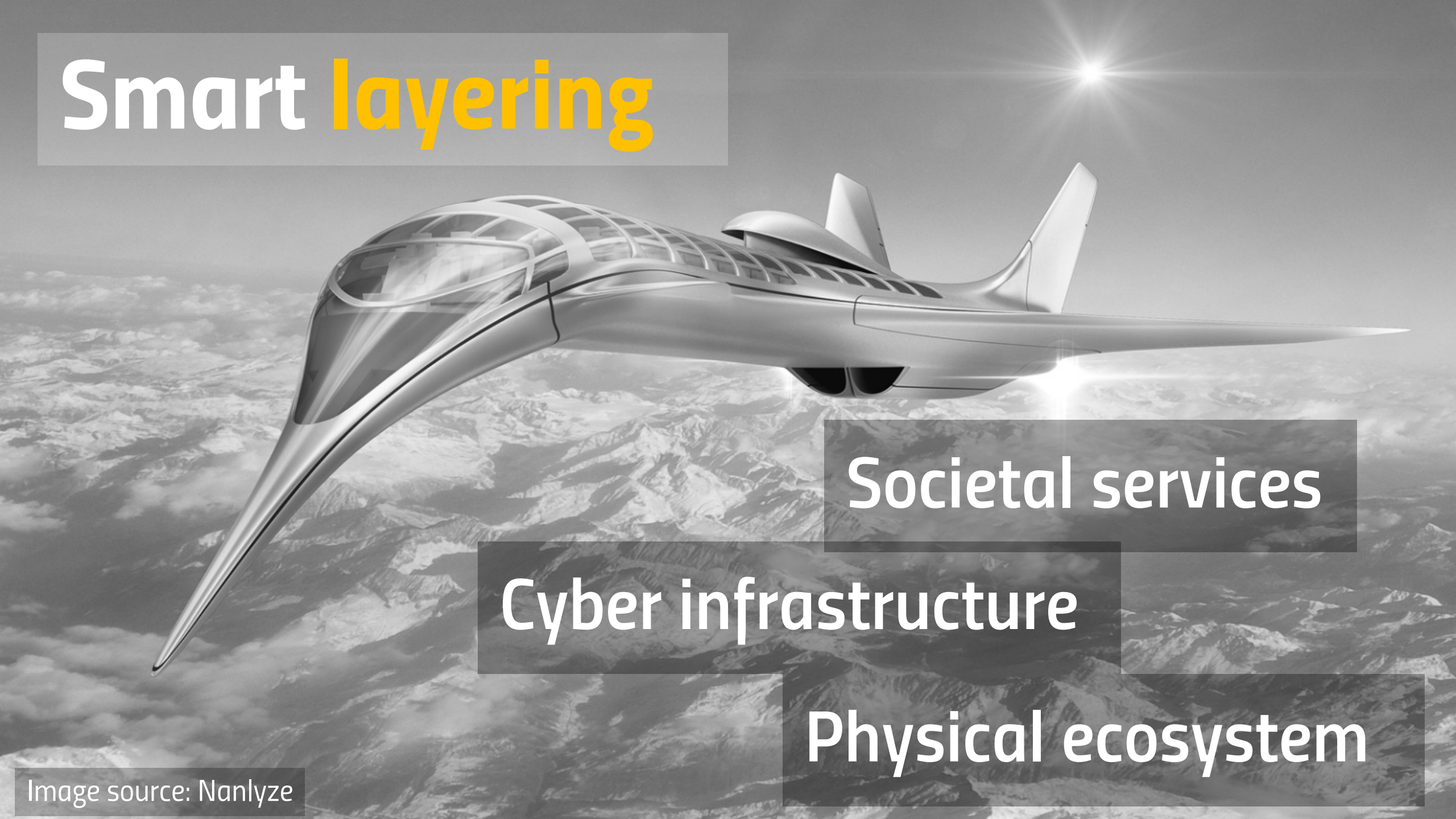
The driver, the vehicle, the roadway

Where media, design, technology, safety, nature, energy and you converge!

# Space ownership

A narrative of spirals and layers

# Smart layering



Societal services

Cyber infrastructure

Physical ecosystem

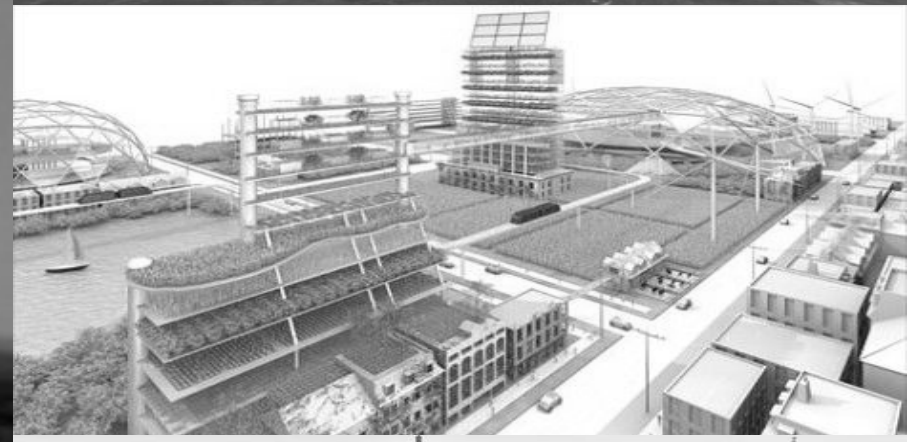
Image source: Nanlyze

# Unmanned Vehicles

A new universe of multimodal transporters

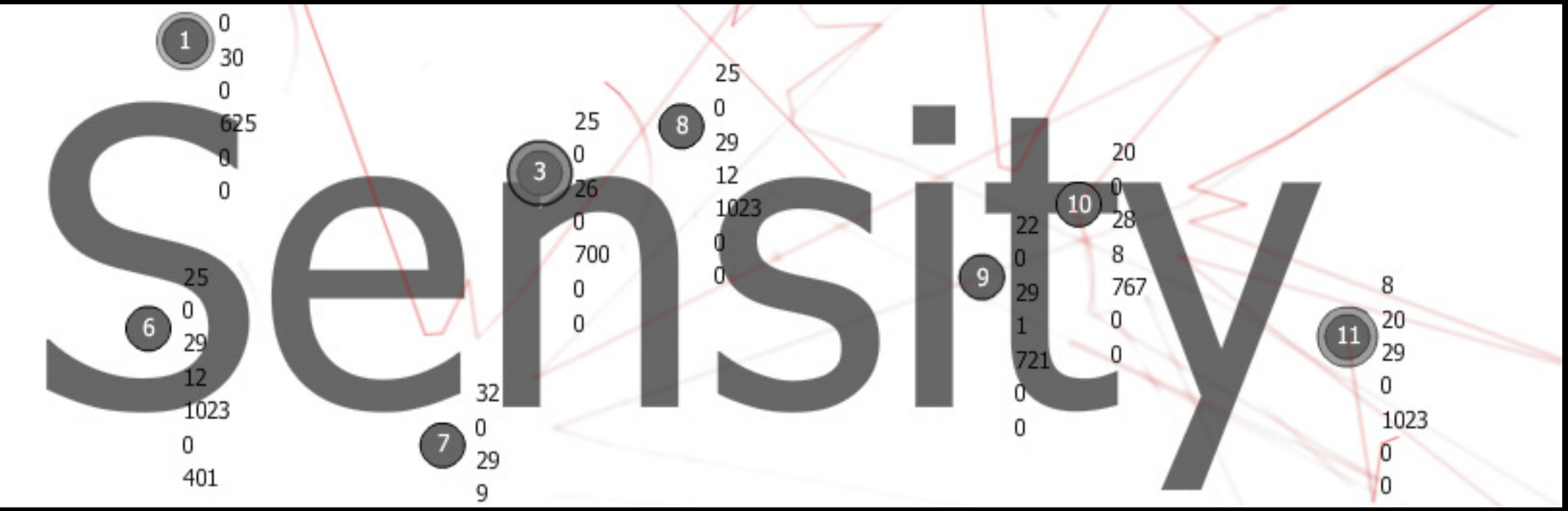
# Ocean city with an energy factory

# A visual narrative for sustainable farming



# Rural connectivity

# Space as poetry




Immersive aesthetics

Unfinished memories

Personal ambience

Belongingness

# 2. Systems Rethinking and self-directed intelligence

# Infrastructure Vision 2050 Challenge

SPONSORED BY
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EQUIPMENT MANUFACTURERS

# The City as Knowledge

*Collection, extraction, transmission*

Grids, sensor networks & IoT

# Spatial interaction

## New roles for kinetic architecture

From Smart to Social

# CCTV and Art as third eye surveillance

Data sculptures as a socialization and data collection tool

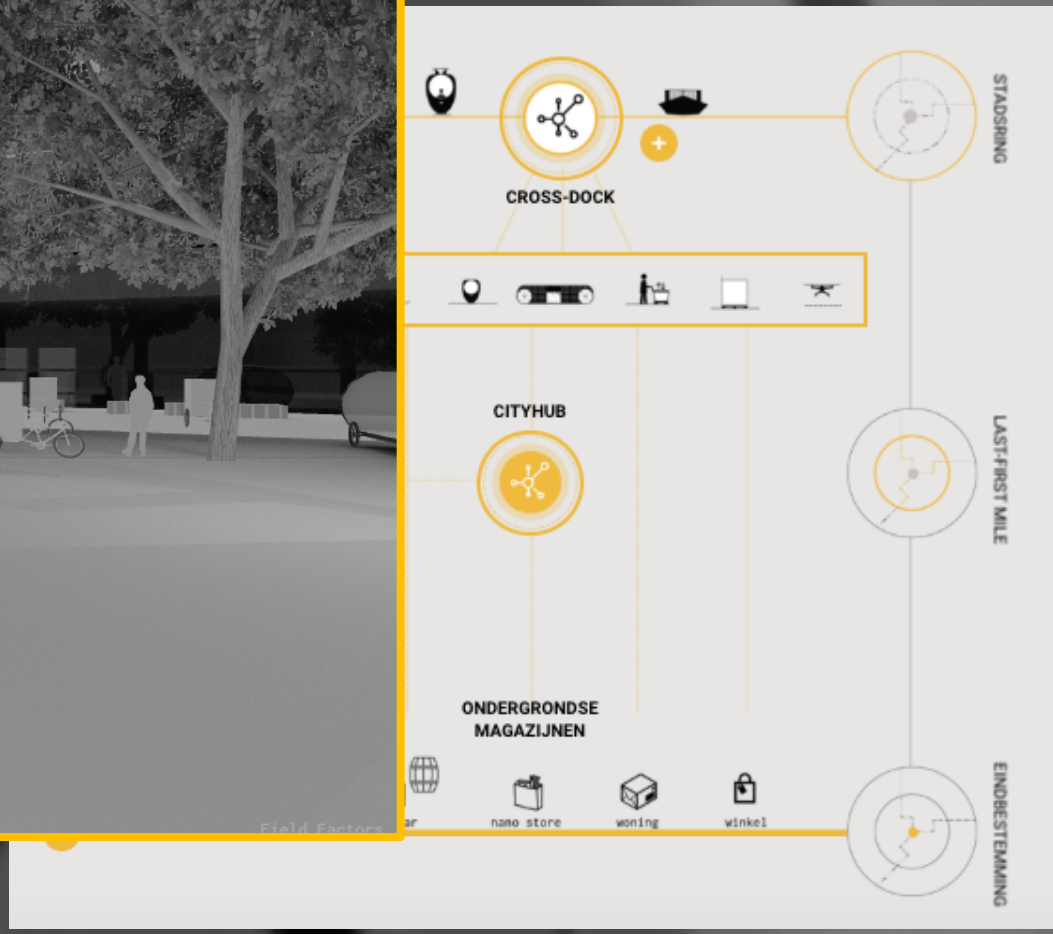
Simplifying diversity
Smart manufacturing meets
intelligent distribution networks

# Car free cities

## DE CROSS-DOCK

**Een multimodale platform voor productie, opslag, gerobotiseerde overslag en distributie.**

Hier worden stromen in grote volumes naar kleine en frequente ladingen, in kleine, stille en schone voertuigen de Last-mile vervoerd. Als de bulk in de Cross-Dock komt, wordt in real-time
een optimale route van de stadsnetwerk (water, weg, rail of lucht) bepaald, waardoor de goederen de stad in gebracht worden. De route wordt op basis van specifieke factoren - afstand, snelheid, tijdstip, frequentie, volume, urgentie en waarde/kosten - automatisch geselecteerd.

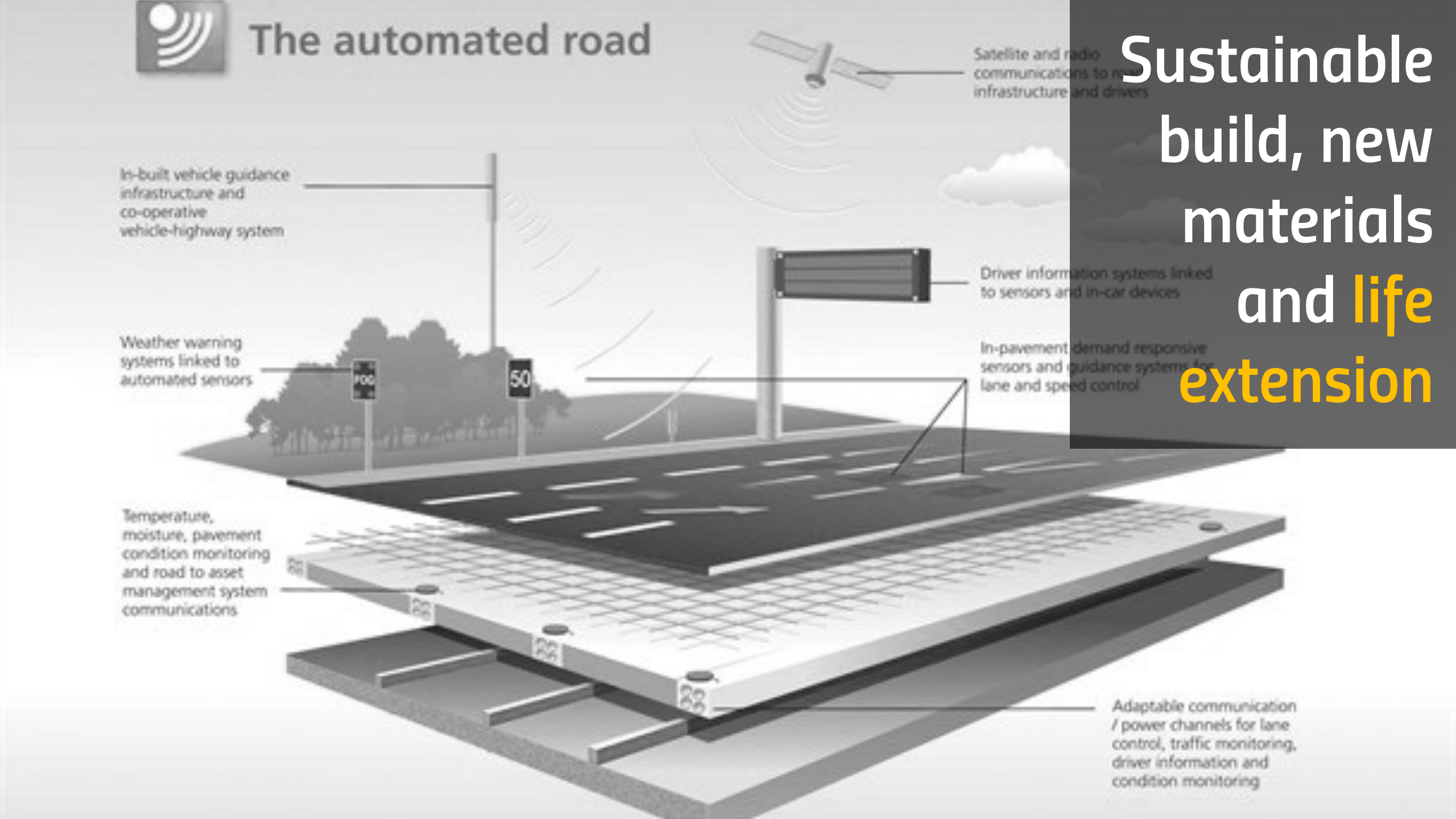


# Accelerated intelligent construction

Complex surfaces

In situ resource utilization

Specialized robots (snake, clusters)

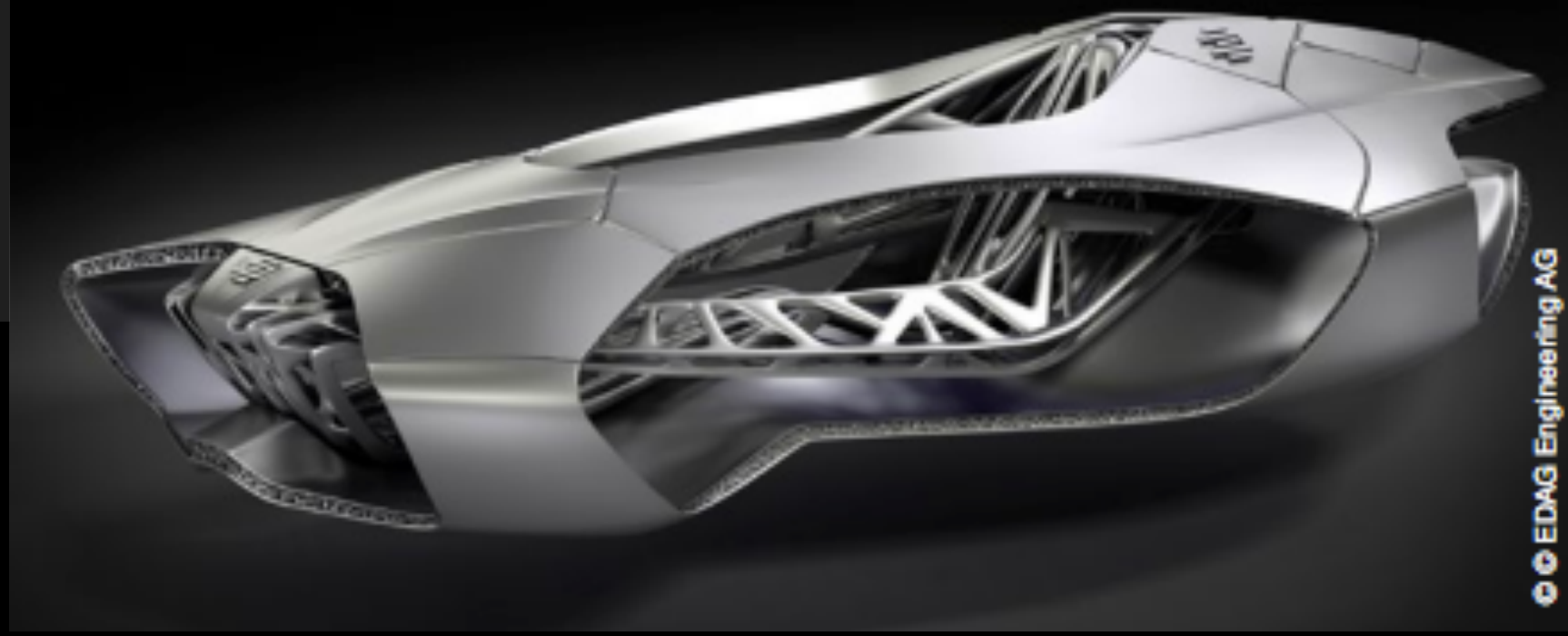



# Sustainable build, new materials and life extension

# Lo tech – recycling, prefab

# 3D printing of machines and components

- Accelerated build
- Lighter & faster
- Better aerodynamics
- Flexible shapes
- Greater efficiencies



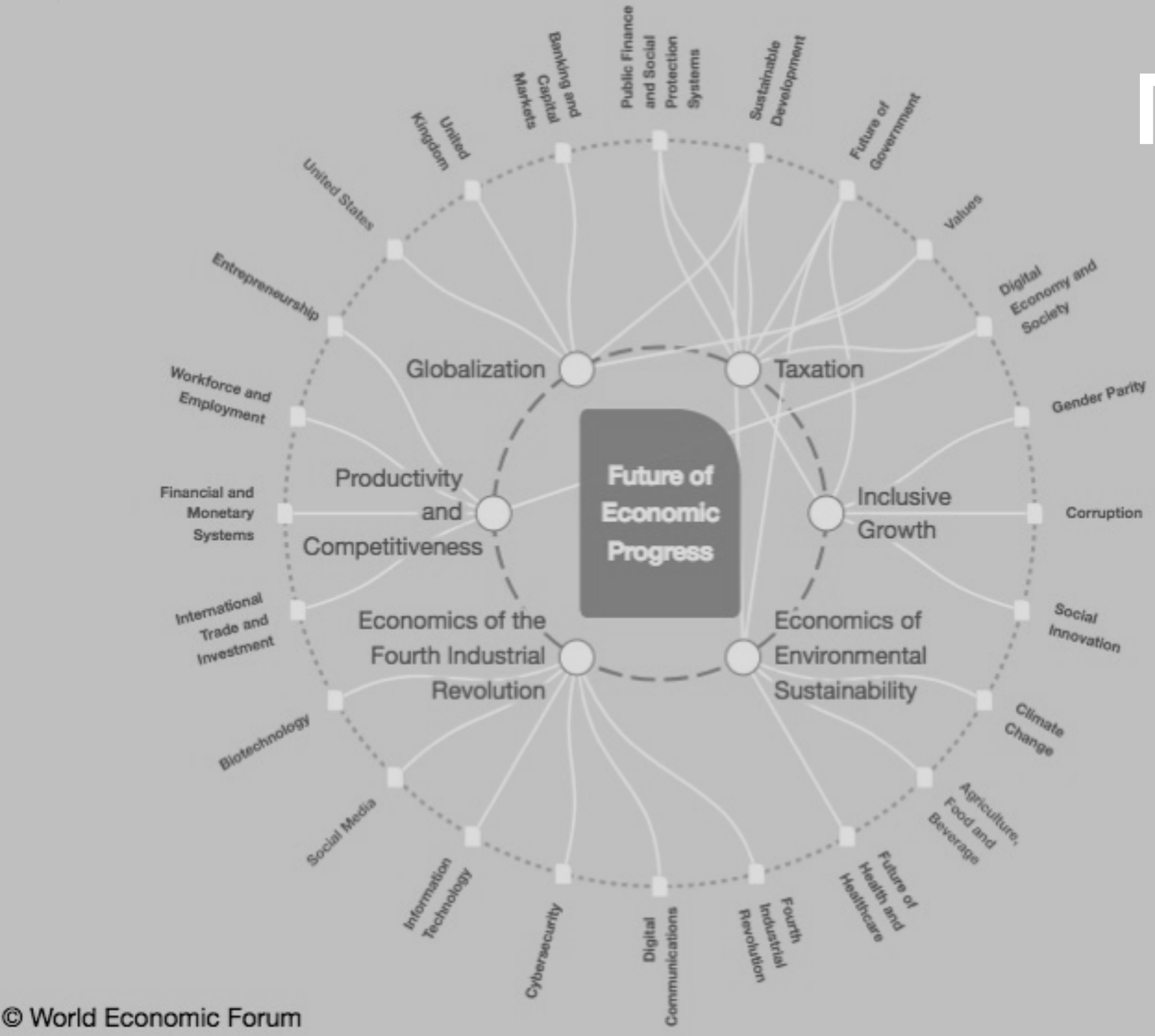
Self-directed intelligence

3.

# New economies and power paradigms

**Beyond conflict:**
The Nemesis Machine

# A new power paradigm



© World Economic Forum

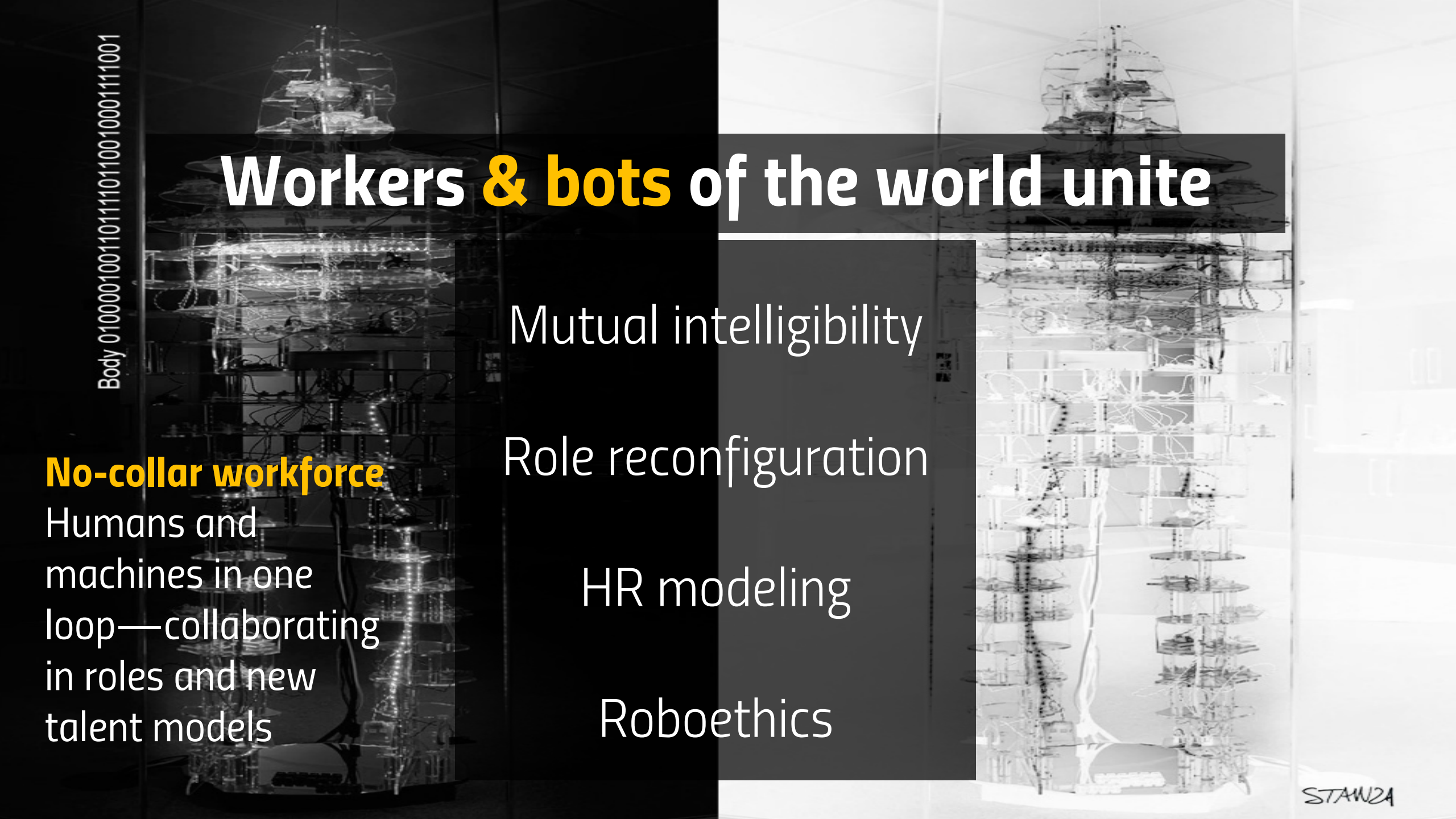
# Meso and meta economics

Holistic

Living

Deep

Human




# Workers & bots of the world unite

Mutual intelligibility

Role reconfiguration

HR modeling

Roboethics

**No-collar workforce**
Humans and machines in one loop—collaborating in roles and new talent models

STANZA

# Upskilling & Simulation

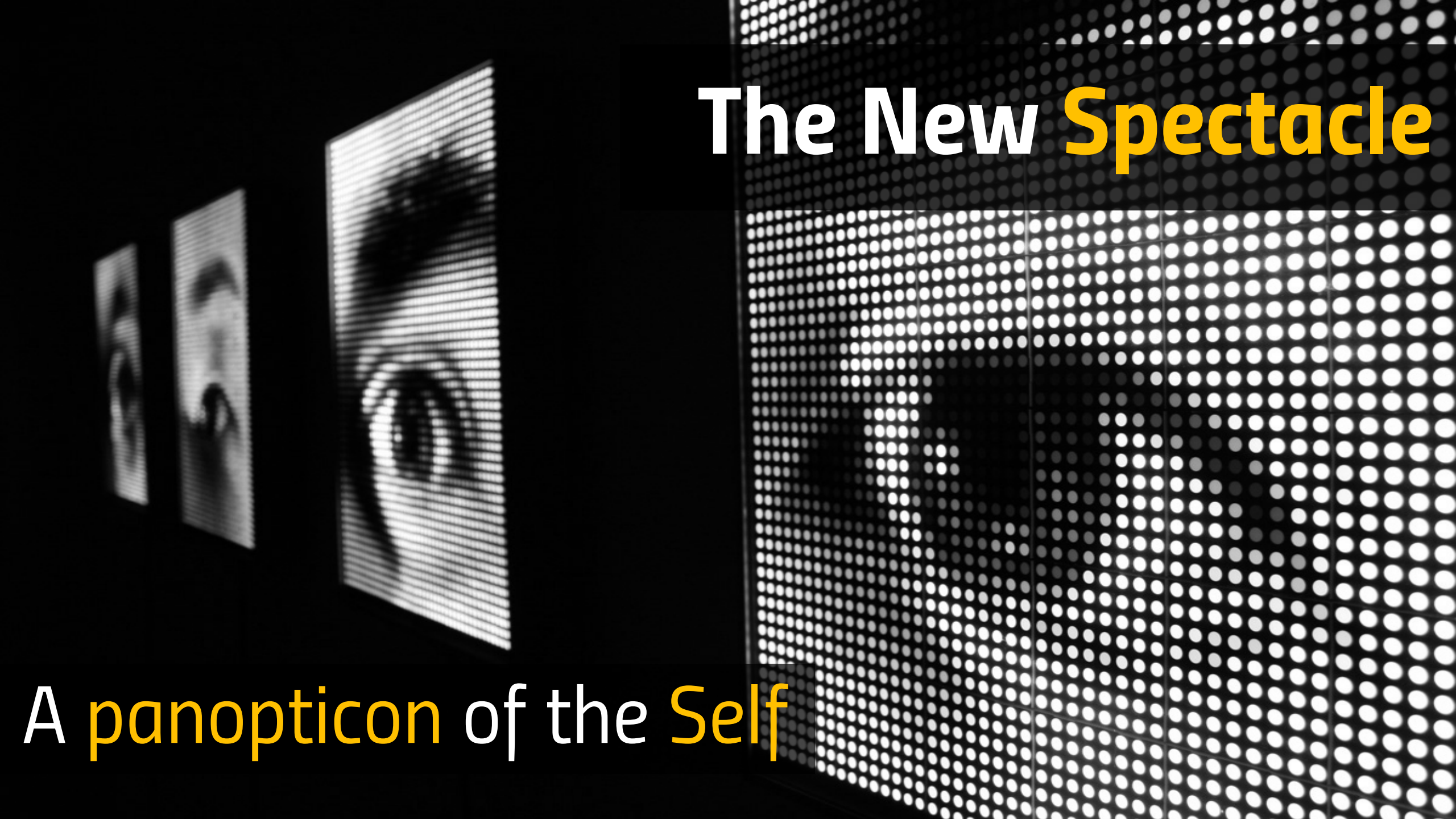
Transformative IoT meets full immersion

# 4.

## Remix Lifestyle

## Social-cultural change

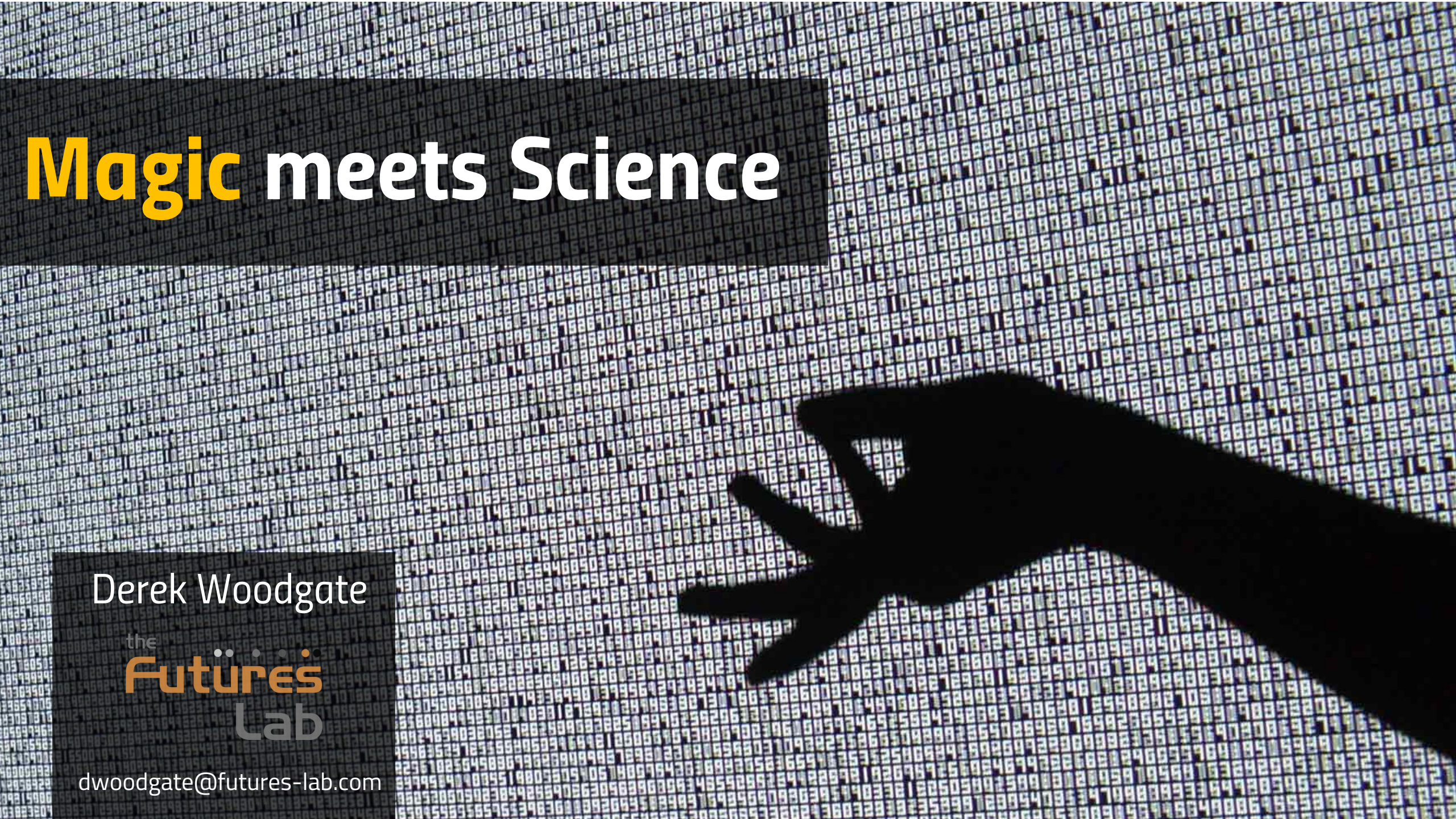
Performative Identities
Archetypes
Values & signifiers


The New Spectacle
A panopticon of the Self

# Cyborgs, Transhumans & Superhumans

What you experience in your imagination is the same as you experience in the real world...

# Magic meets Science



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