

DIGITAL ARCHITECTURE

NEXT GENERATION SUPPLY CHAINS

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DHL Global Forwarding Management GmbH



WHAT ARE WE GOING TO TALK ABOUT TODAY?



Why should logistic corporations think about digital?

Which technology trends can enable digitalization ?

How can we put digital to real life use cases?



WHO WE ARE – A GLOBAL COMPANY WITH A UNIQUE PORTFOLIO

Europe's largest postal service



Partner for e-commerce and a pioneer in secure digital communications



No. 1 in international express delivery



Leader in the forwarding business

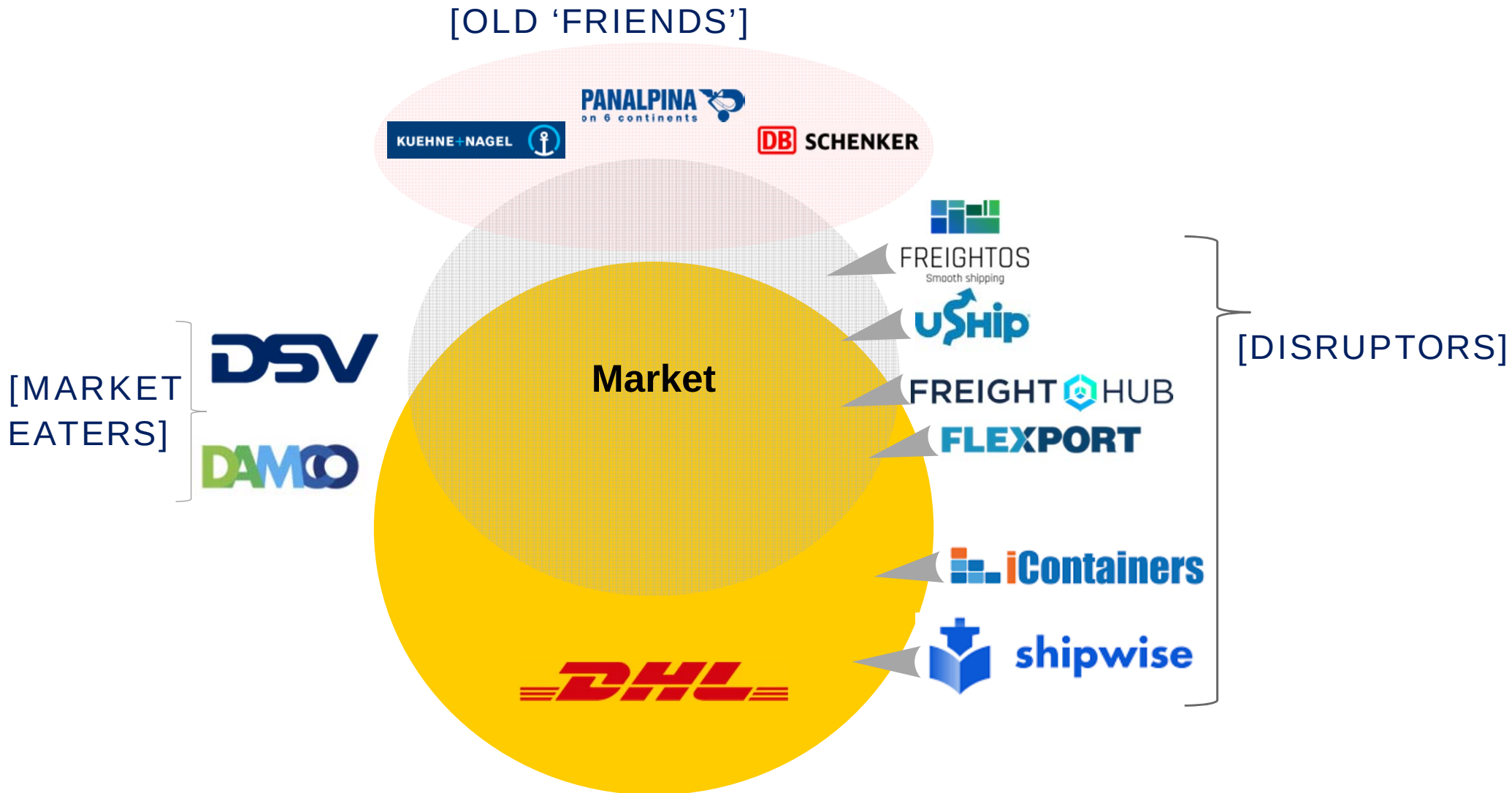


No. 1 in contract logistics

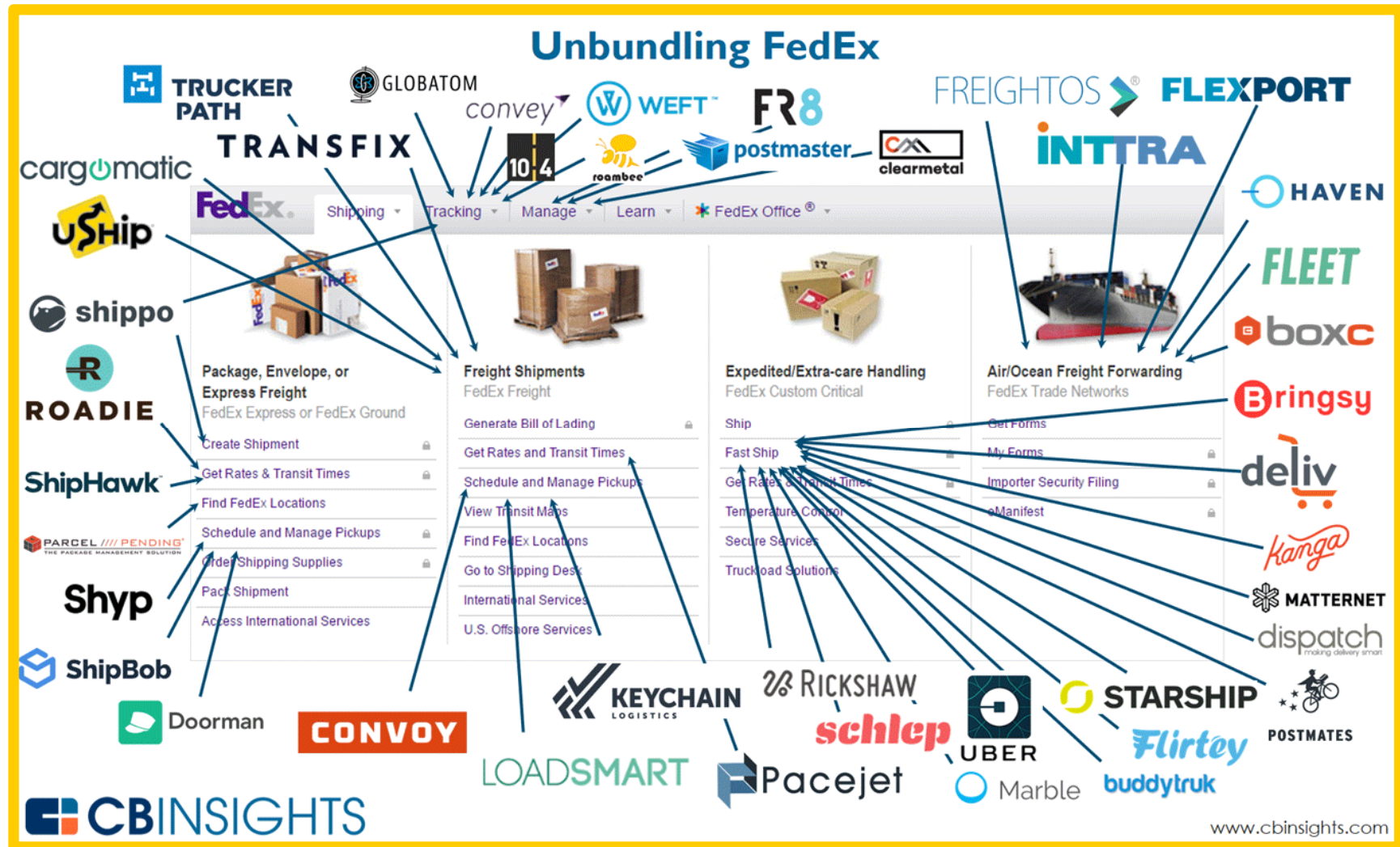


Deutsche Post DHL Group

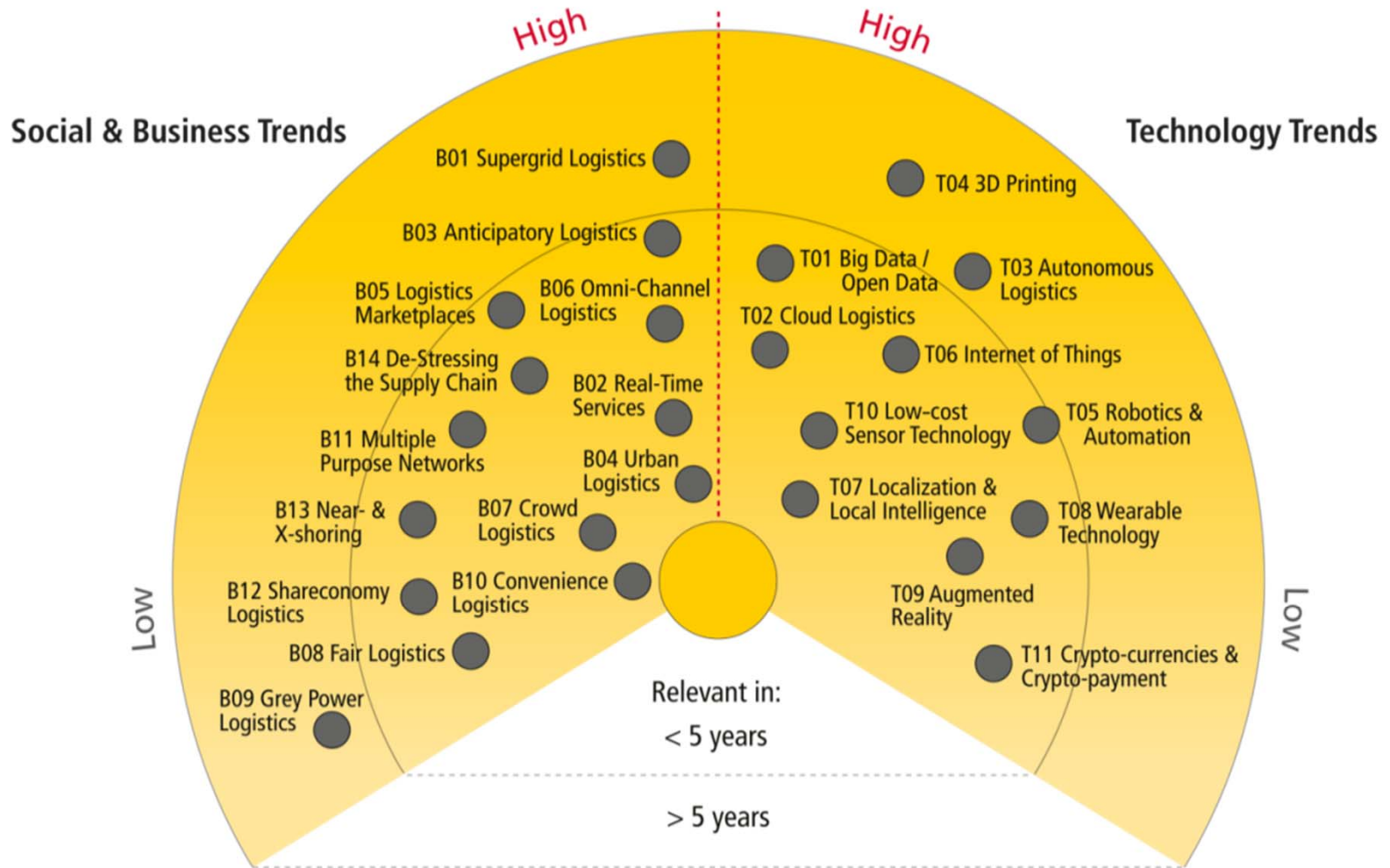
LATELY MARKET POSITION HAS BEEN CHALLENGED BY FRIENDS & DIGITAL STRANGERS



BUT OUR SITUATION IS NOT THAT DIFFERENT FROM OTHERS!



KEY IS TO TAKE A HOLISTIC VIEW ON TRENDS



TODAY WE WILL FOCUS ON 6 TRENDS PRESENTING US AN OPPORTUNITY FOR NEXT GENERATION SUPPLY CHAINS

LOW COST
SENSOR TECHNOLOGY

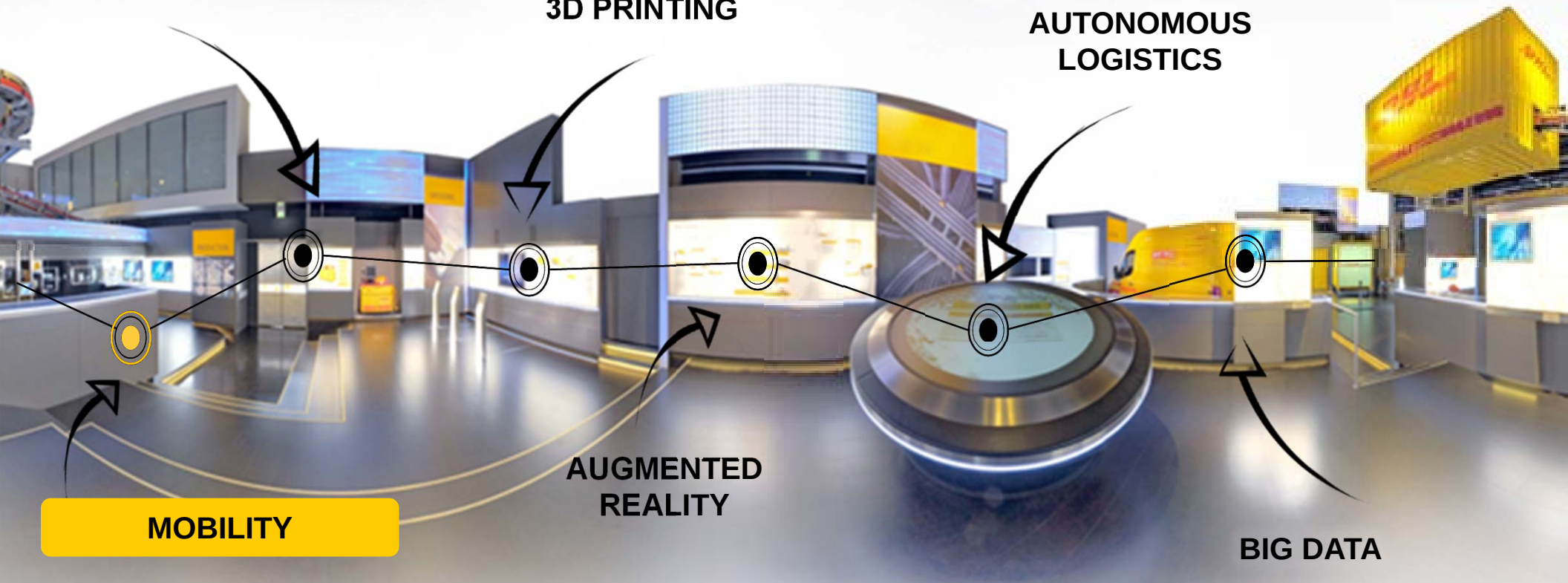
3D PRINTING

AUTONOMOUS
LOGISTICS

AUGMENTED
REALITY

MOBILITY

BIG DATA



HARNESSING THE POWER OF MOBILITY



**LOW COST
SENSOR TECHNOLOGY**

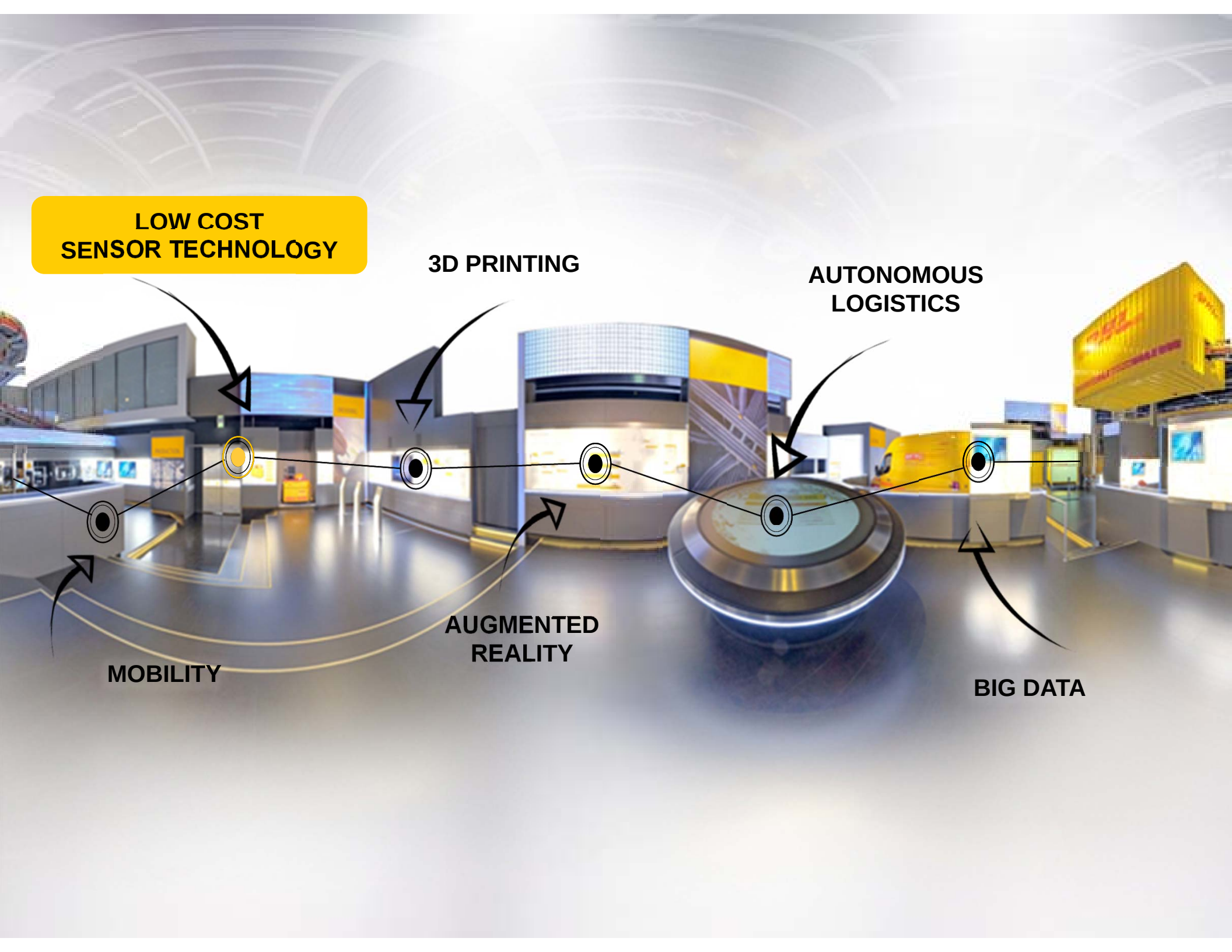
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MICROSOFT KINECT TECHNOLOGY – 3D SENSING

KINECT

01

Developed by Microsoft in cooperation with PrimeSense™

Used in context of Xbox 360 and Xbox One gaming console

02

03

Movement and gesture recognition is achieved via three main sensors



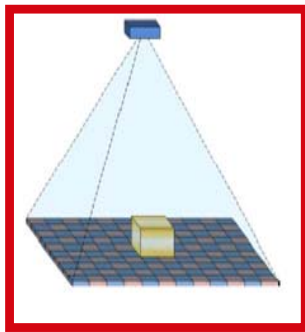
XBOX 360™



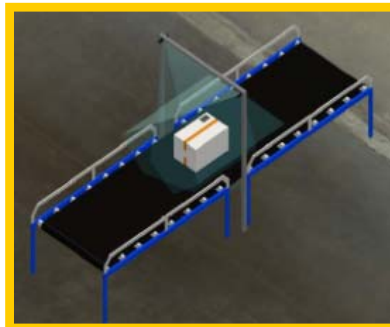
XBOX ONE

USE CASES IN LOGISTICS

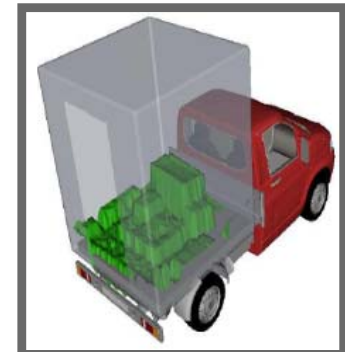
Automated Inventory



Load Volume Detection



Volume Recognition For Single Parcels / Pallets



**LOW COST
SENSOR TECHNOLOGY**

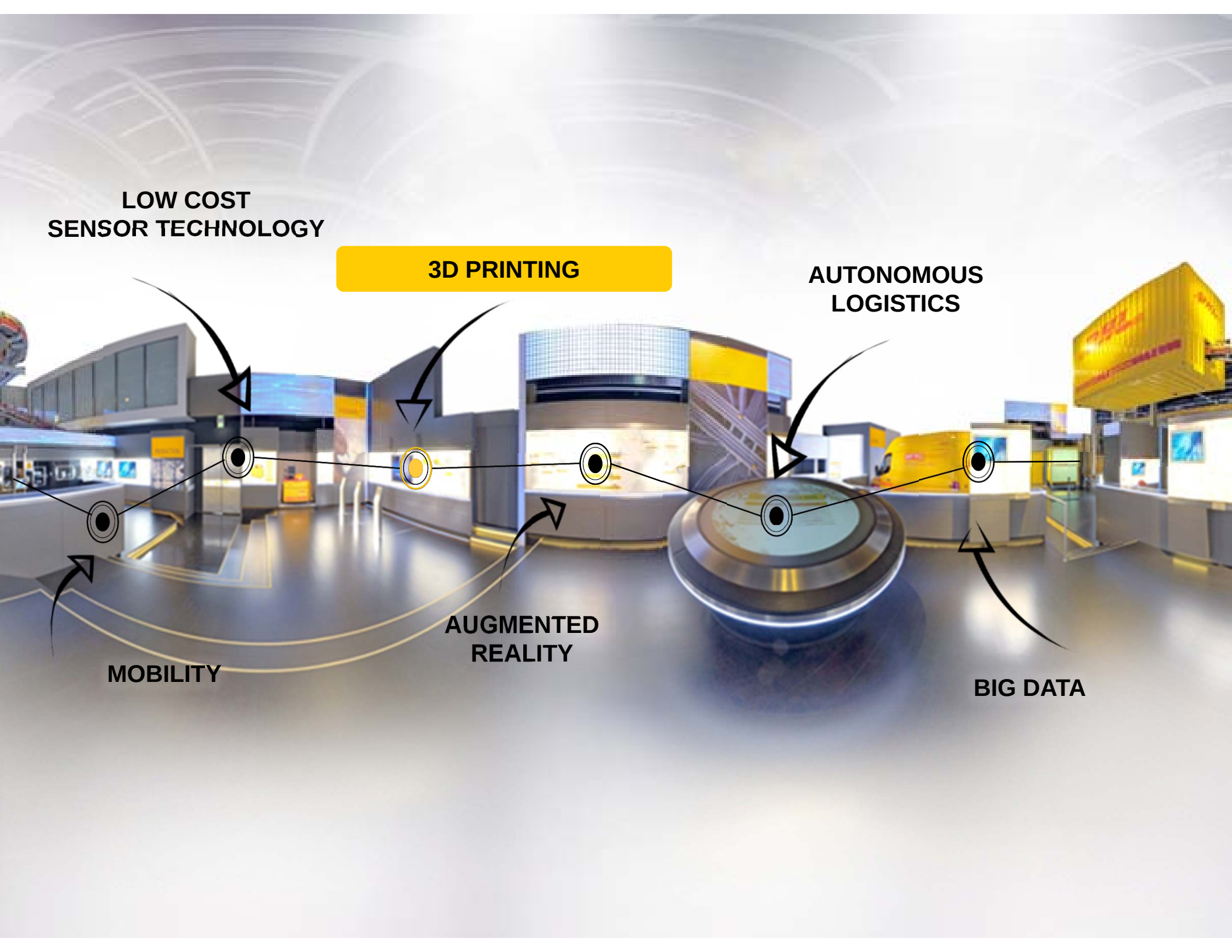
3D PRINTING

**AUTONOMOUS
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3D PRINTING IN THE SUPPLY CHAIN

Mass articles and production...



Complex production processes...



Today



Global transport of products...



Warehouses stacked with products...

... individualized articles and on demand production



... simplified and shortened production process



Tomorrow



... local production



... software databases

THE DIGITAL WAREHOUSE

Spare Parts on Demand

- The Digital Warehouse stores CAD files and 3D prints spare parts on demand reducing inventory costs and increasing lead times.
- Spare part on demand use case piloted in technology sector using professional 3D Printing infrastructure.



**LOW COST
SENSOR TECHNOLOGY**

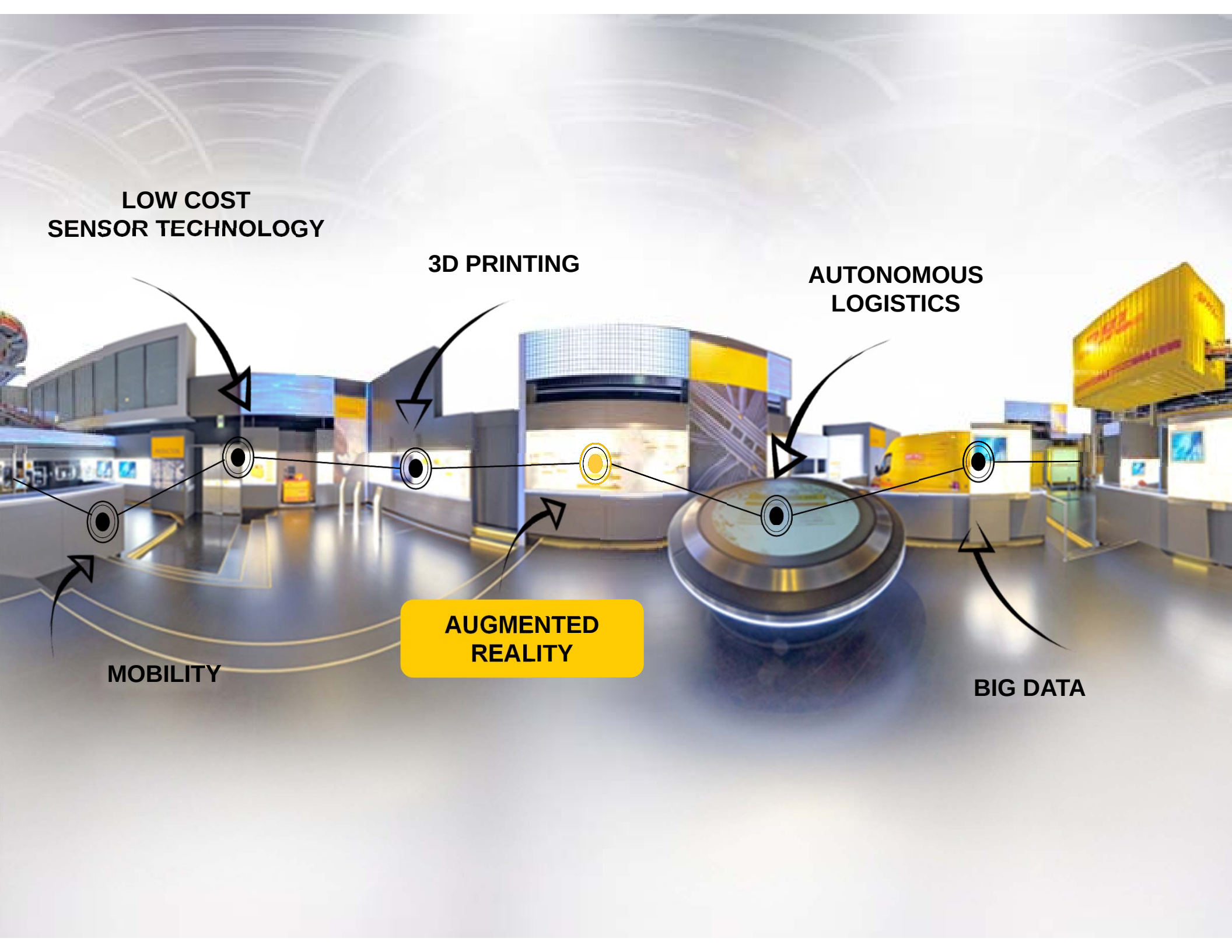
3D PRINTING

**AUTONOMOUS
LOGISTICS**

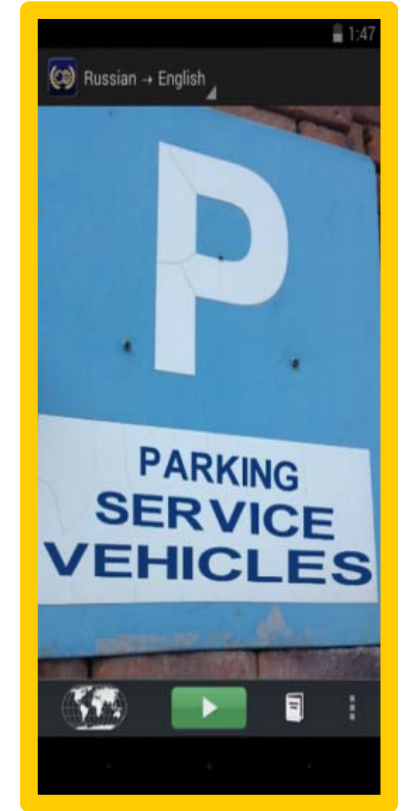
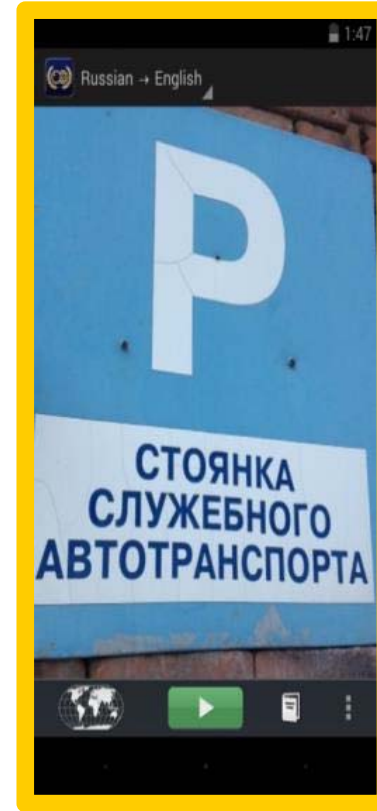
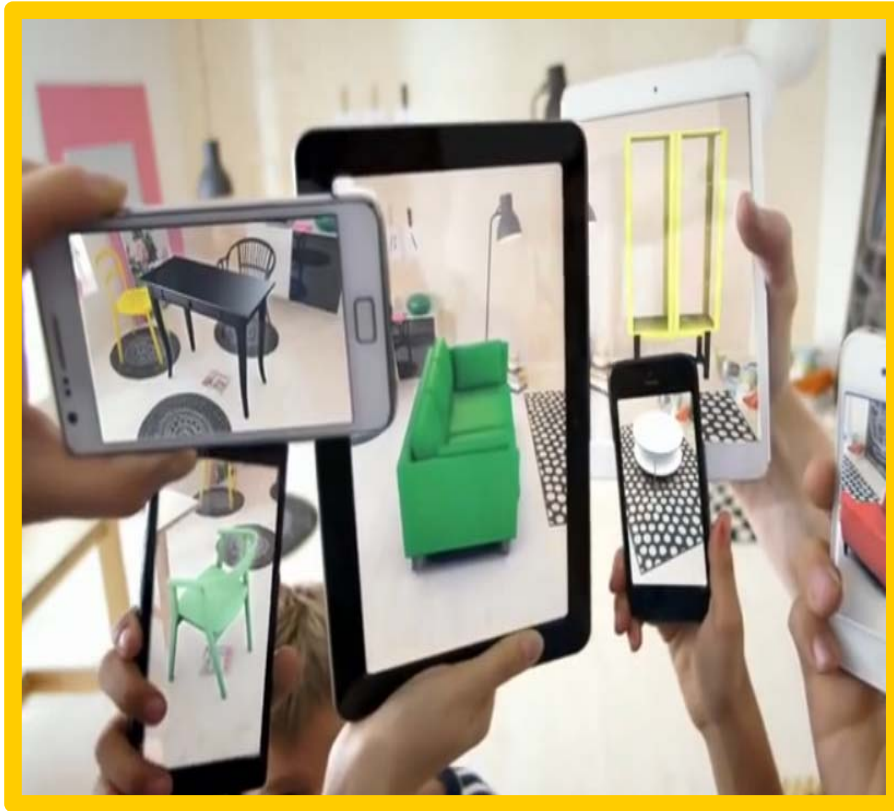
**AUGMENTED
REALITY**

MOBILITY

BIG DATA



TRANSFORMING CONSUMER EXPERIENCE



Source: IKEA, WordLens.

AUGMENTED REALITY IN LOGISTICS



Augmented
Warehouse

01



Future of
Freight
Transportation

02



Last-mile:
Future
Postman

03

**LOW COST
SENSOR TECHNOLOGY**

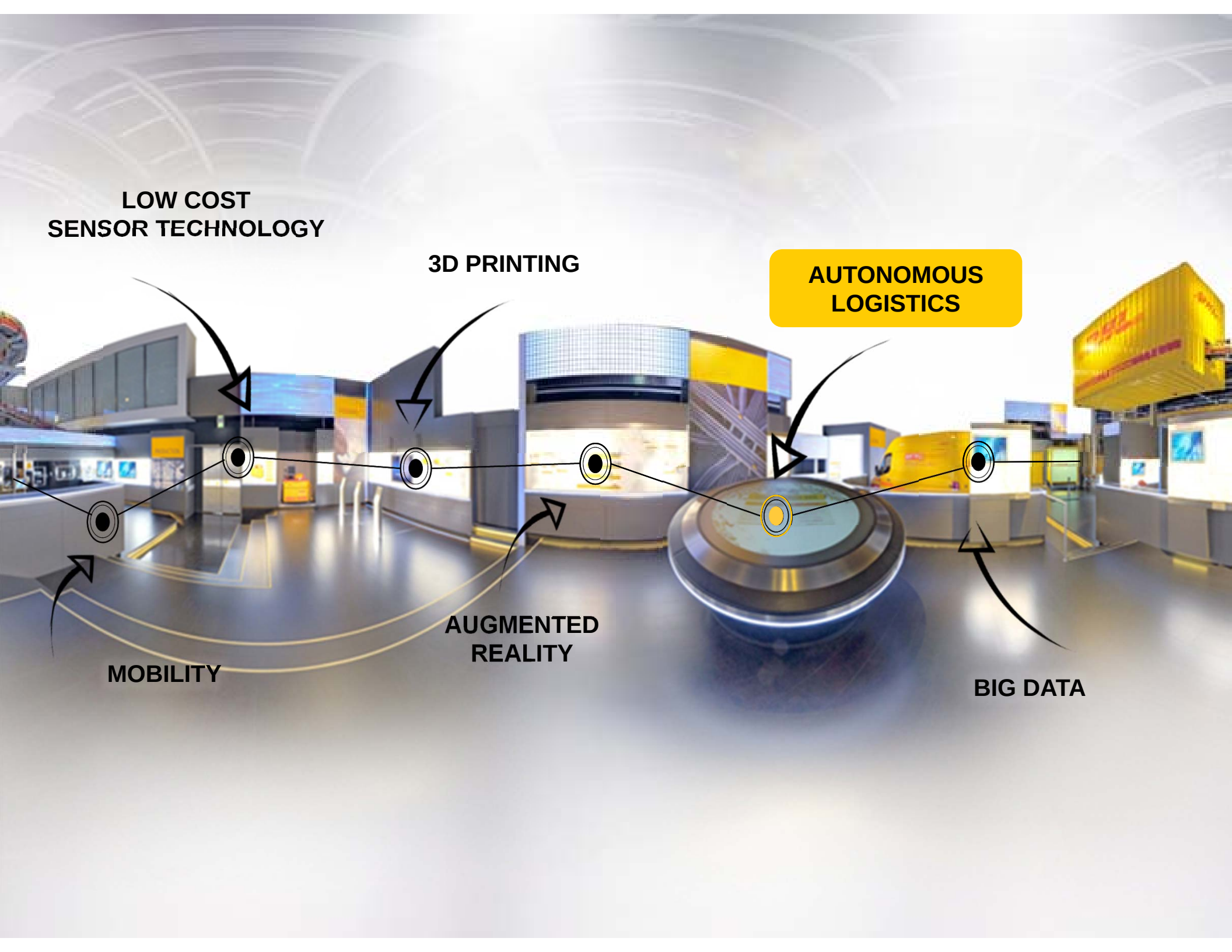
3D PRINTING

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AUTONOMOUS LOGISTICS



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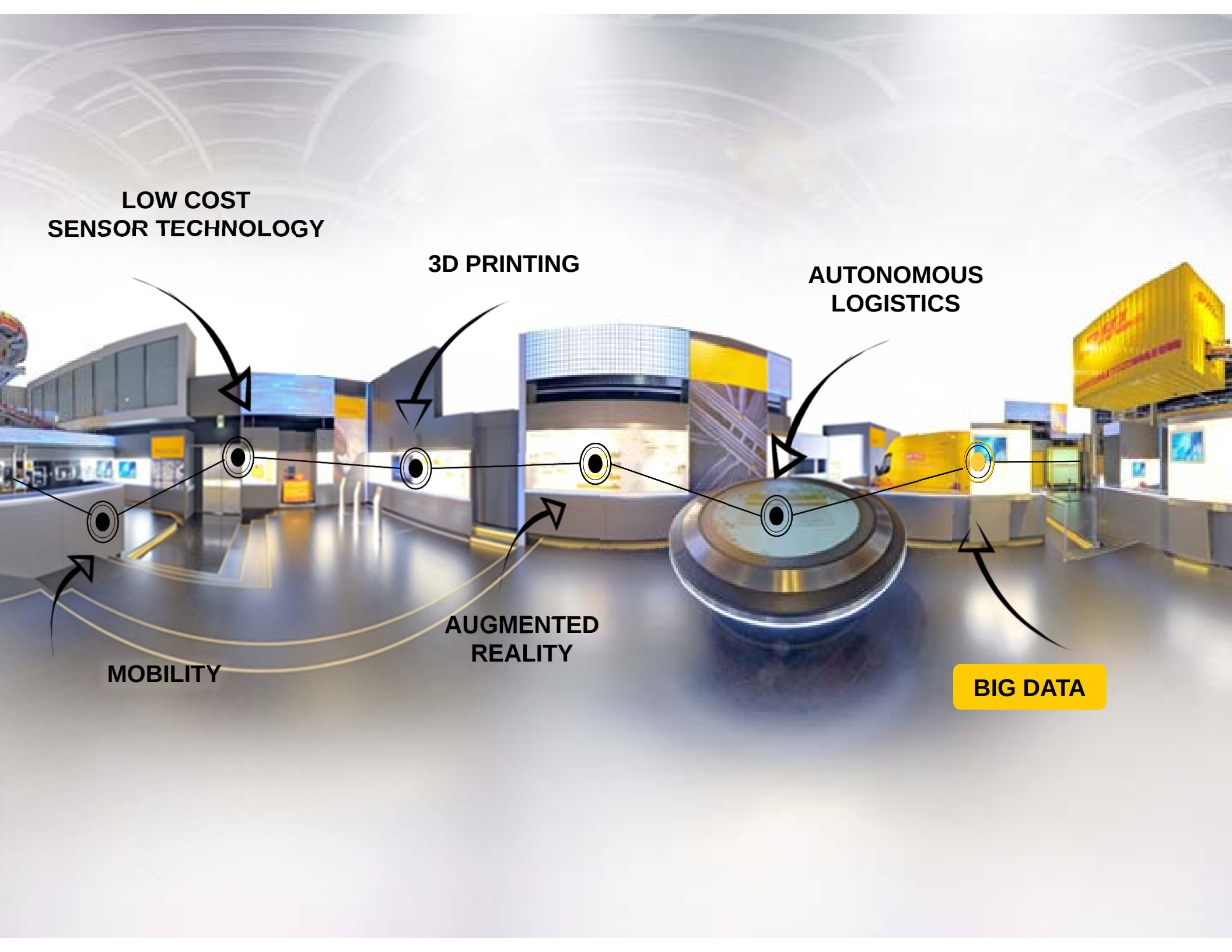
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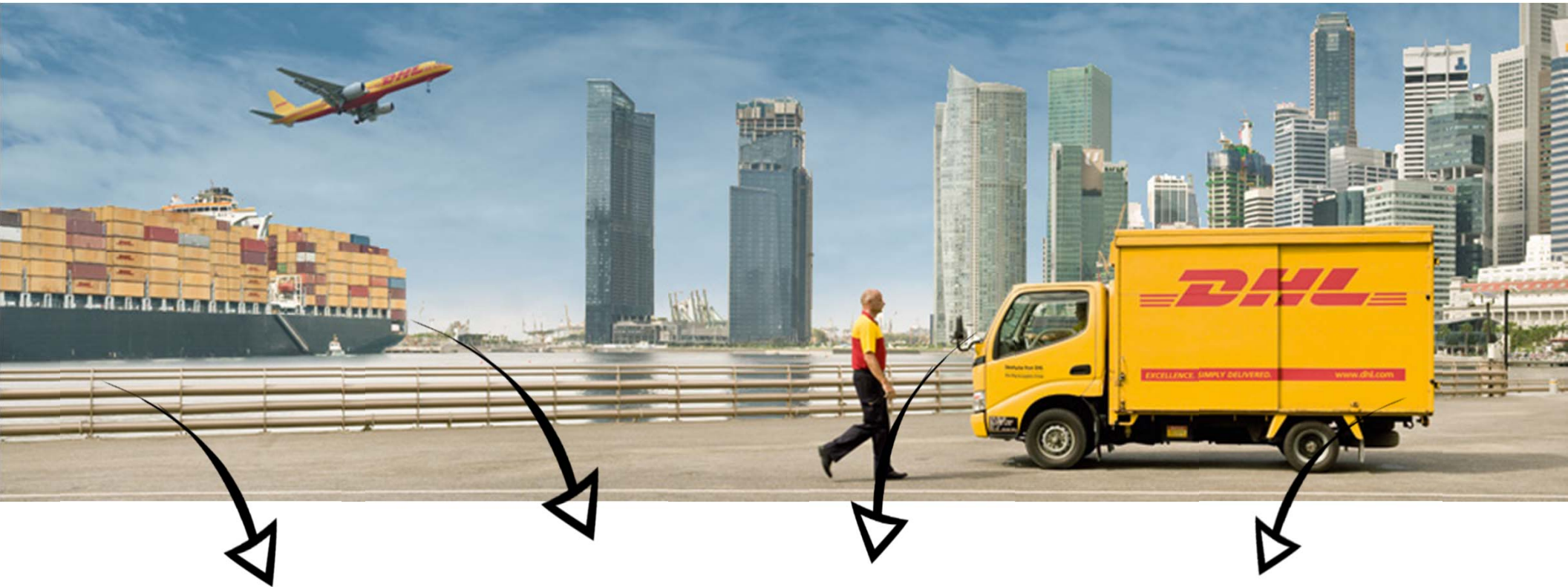
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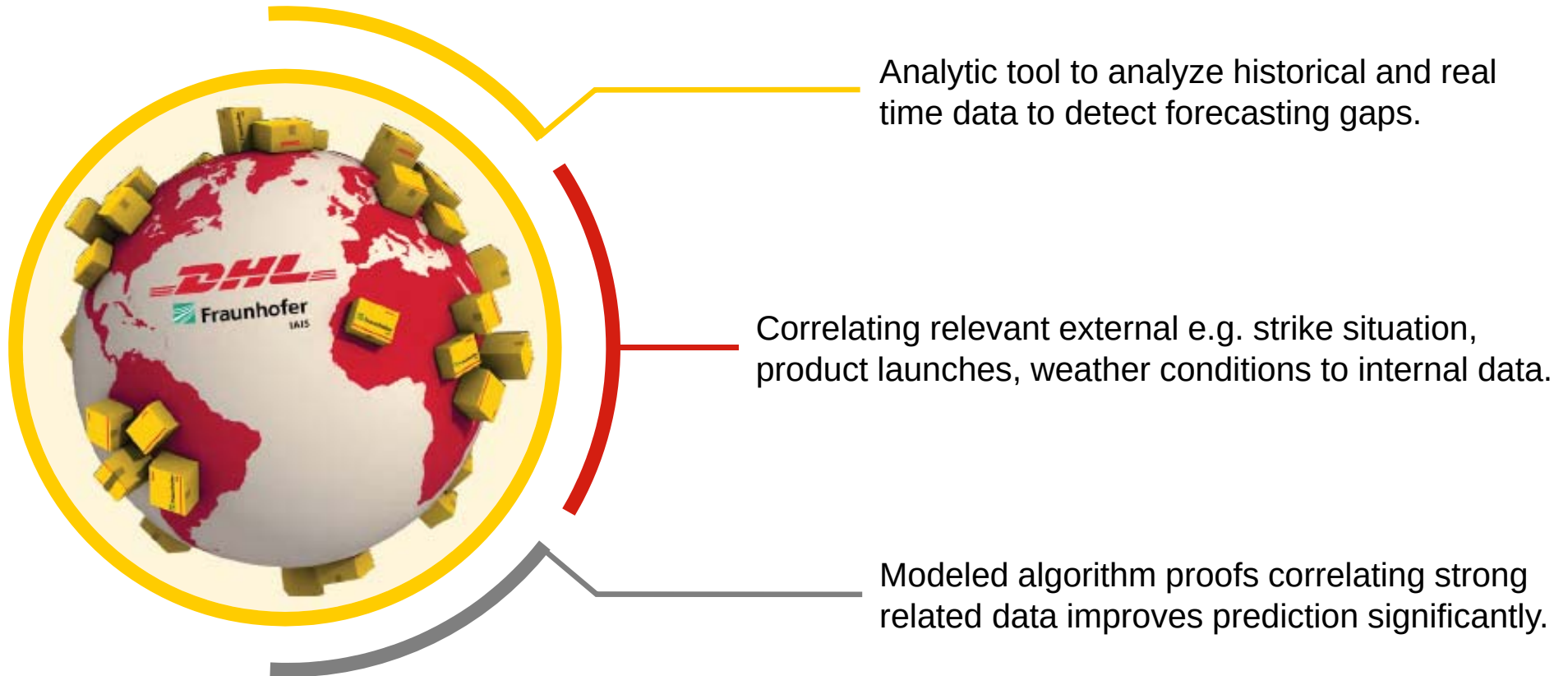
BIG DATA & LOGISTICS – A PERFECT MATCH



Logistics = “Practical Arithmetic”

Every day, millions of shipments are tracked, creating vast data sets that logistics providers have to manage.

PARCEL VOLUME PREDICTION



SUPPLY CHAIN RISK MANAGEMENT

DHL RESILIENCE360



A **unique** consultancy and software solution based on data



Improves the resilience of your entire supply chain



www.coreproject.eu

www.dhl.com/resilience



Designed to reduce emergency costs, maintain service levels, protect sales and enable fast post-disruption recovery

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SENSOR TECHNOLOGY**

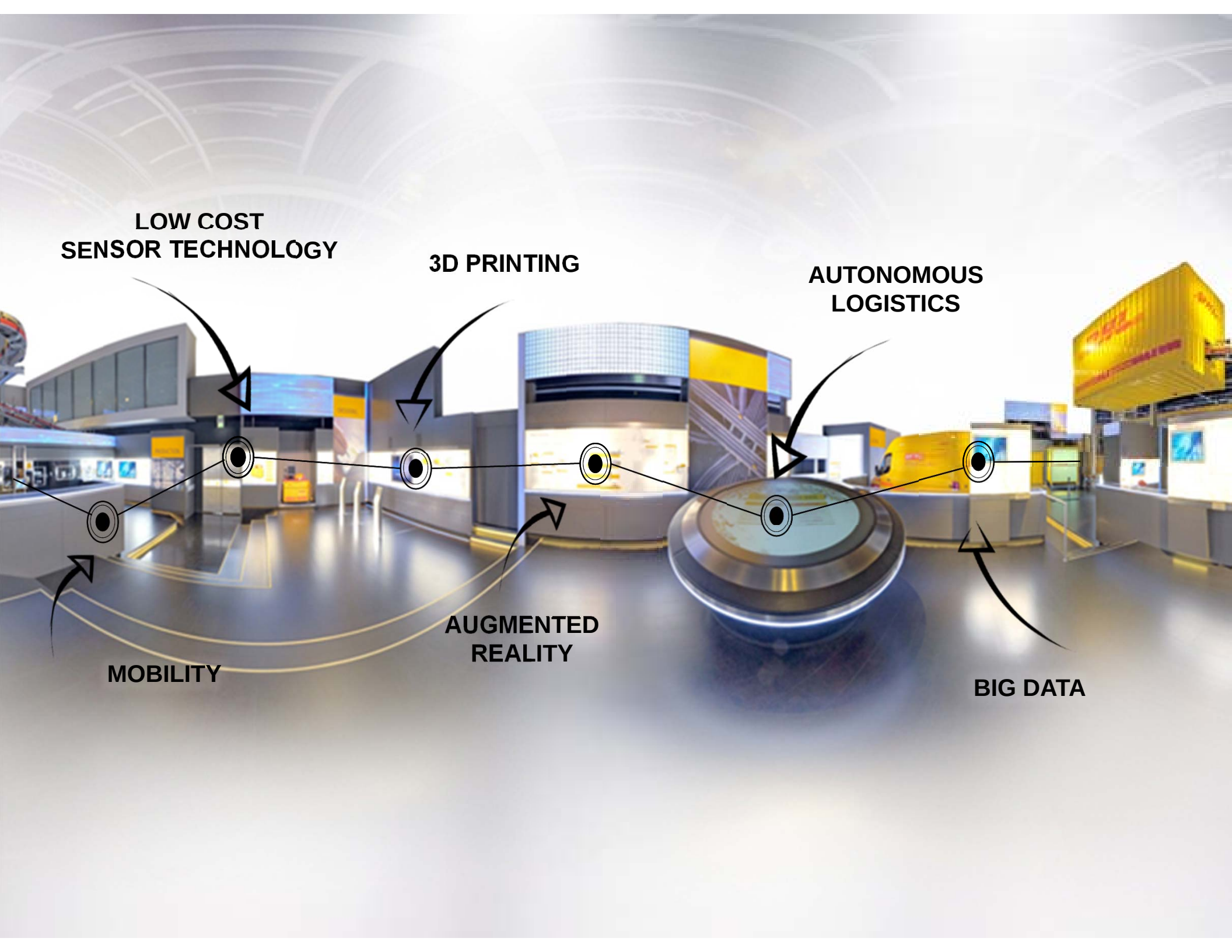
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To secure industry leadership in a digitized world

Believe that digital technologies will reshape logistics industry lowering the entry barrier

Holistic view on technological trends facilitates agile digital architecture

Design logistics as an extension to Industry 4.0 digital connected and self organized production processes

THANK YOU



CONTACT

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