

The Power of Pixels

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Barcelona | 01 FEB 2023



Invidis Logo 2023





The Pulse

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Display Market Data 2022 Digital Signage Business Climate Index



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Source: © 2023 Futuresource
2022 Market in Units / Value in EUR (Professional Screens >32")
YoY: 2022 vs. 2021
Preliminary data for Q4 2022

Strong EMEA Growth

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2022
Preliminary

Global Units

7.7m | YoY +12%

Global Value

18.9bn | YoY +17%

EMEA Units

📊 25% | YoY +23%

EMEA Value

📊 23% | YoY +25%

Source: © 2023 Futuresource
2022 Market Share in Units (Professional Screens >32")
YoY: 2022 vs. 2021
Preliminary data for Q4 2022

EMEA

#1.9m

YoY +23%

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Nordics
11% | YoY +23%

Rest of Europe
11% | YoY +12%

PL
3% | YoY +28%

DE AT CH
16% | YoY +9%

BE NL LU
8% | YoY +15%

UK IE
14% | YoY +27%

FR
11% | YoY +26%

IT
10% | YoY 76%

Rest of EMEA
10% | YoY 14%

ES PT
6% | YoY +32%

2022
Preliminary

54.1

Q1 | 2023

DBCI

The pulse of the Digital Signage and DooH industry



Digital Signage & DooH
Business Climate Index



Current Situation 56,5
Expectations 51,8

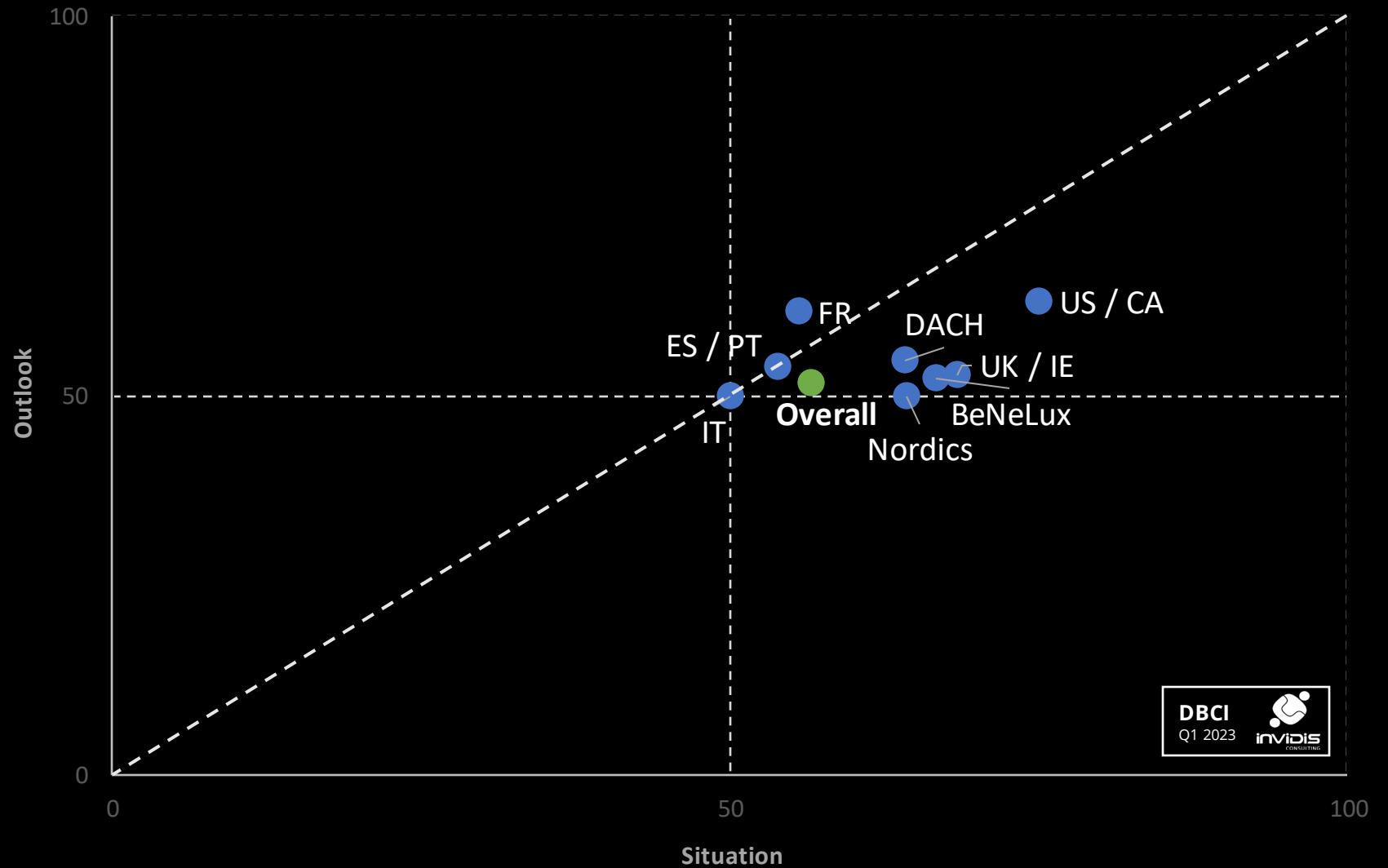
n=85 | Scale +100 to -100



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DBCI by region

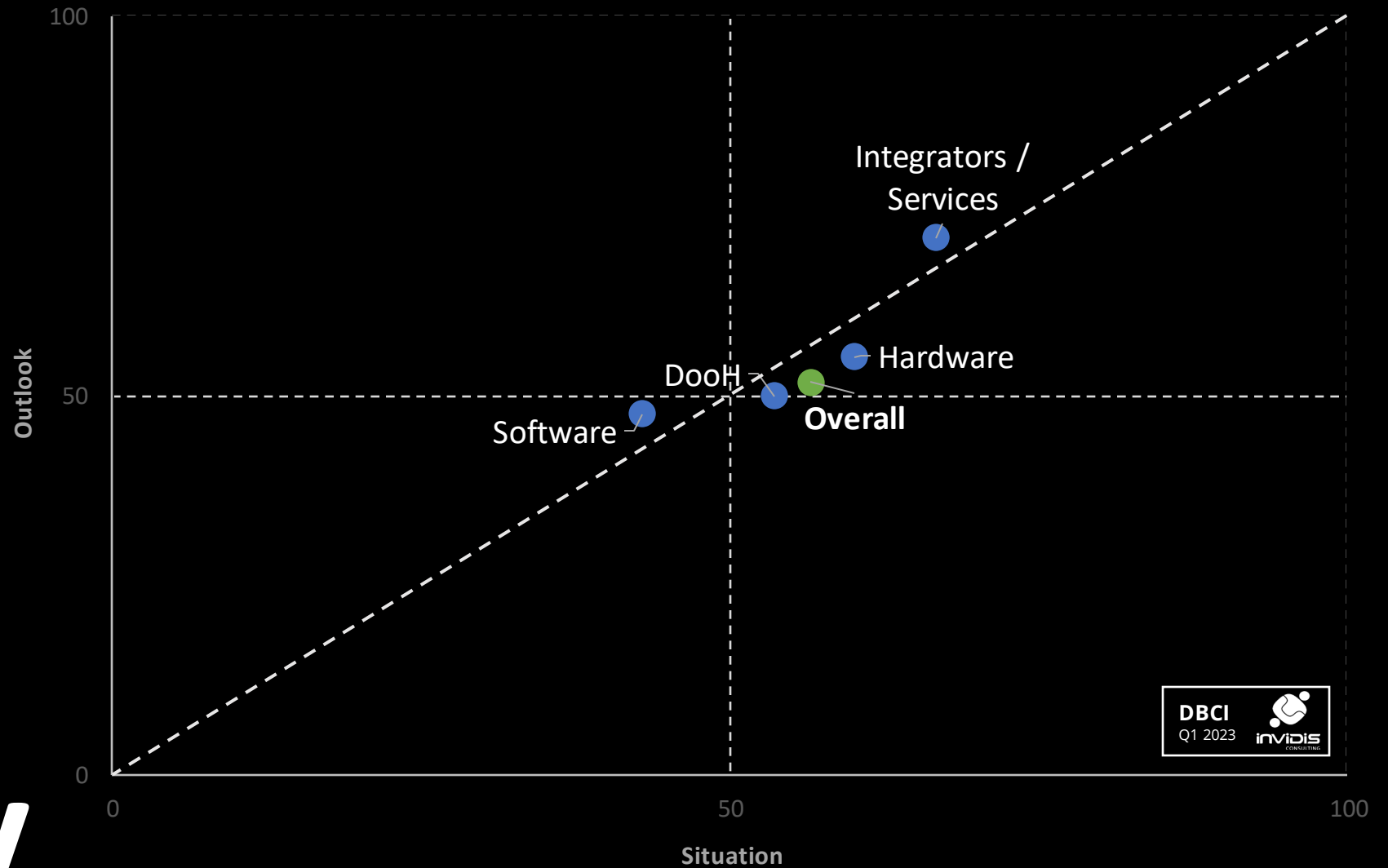


n=85 | Scale +100 to -100

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DBCI by business

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Vertical Outlook



EMEA | Spring 2023

Non-Retail	Education Digital Classroom ▼	Hospitality Hotels & QSR ▲	Industrials Shopfl.. Dashboard ▲	Leisure Museum & Entert. ▼	Media DooH ▲	Re. Estate Corp. Campus ●	Utilities EV Charging ▲	Transport Airports & Stations ●	Workplace Office ●
	Auto Automotive Retail ▲	Beauty Drugstores ●	C-Stores Convenience St. ▲	Deptmt Department Stores ▼	Discount ●	DIY Home Improvement ●	Electrnics Electronics Stores ▼	Fashion ▼	Finance Banking & Insurance ▲
	Fueling Forecourt ●	Grocery Supermarket ▲	Home Liv Furniture Stores ▼	Luxury Fashion ▲	Malls Shopping Center ▼	Online eCommerce Stores ●	Specialty Oth. Specialty Stores ▼	Telcos Telco Shops ▼	Fall Outlook EMEA JAN 2023





The Agenda

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- Retail Media
- IT Security
- Composable SW Architecture
- DS Managed Services
- Green Signage
- Engaging Experiences

Business Critical

JUST DO IT. WELCOME TO NIKE ICON 'N ไท่ทื่อตอสนยาบ ยินดีตื่อรับ NIKE ICON JUST DO IT.

Store Highlights Retail Media

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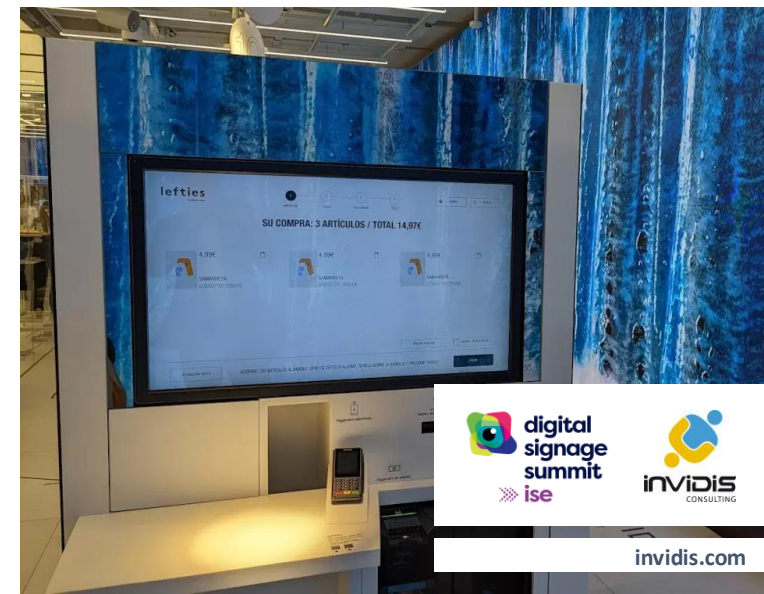
Shared Spaces

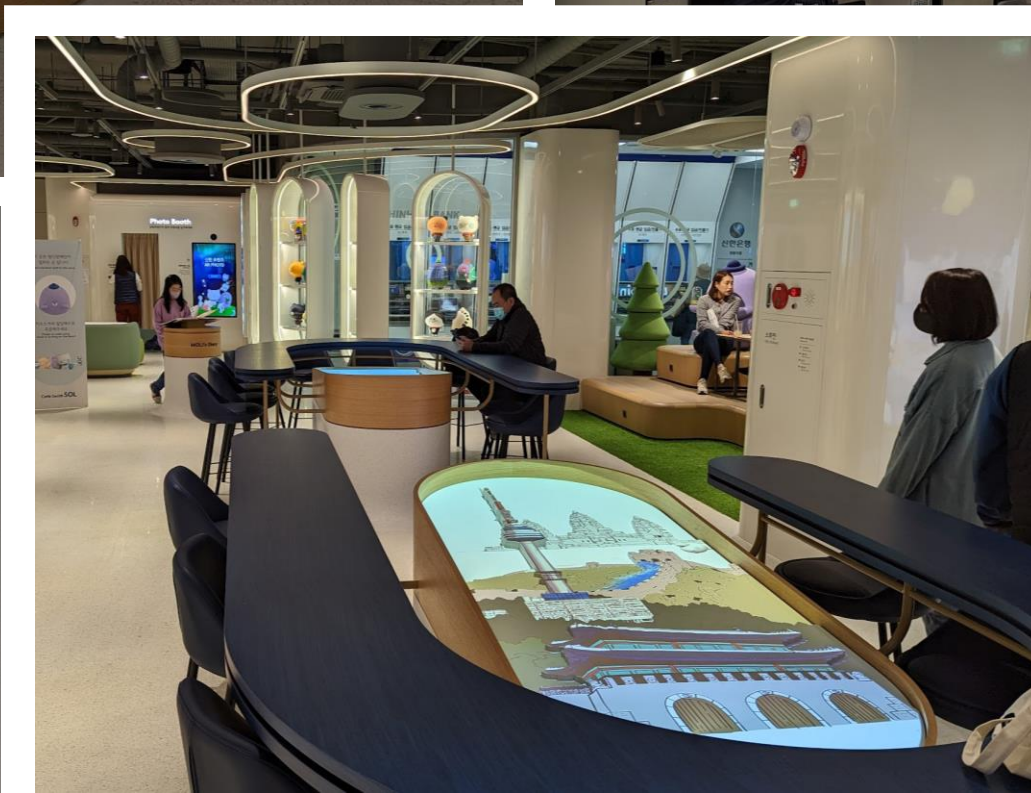
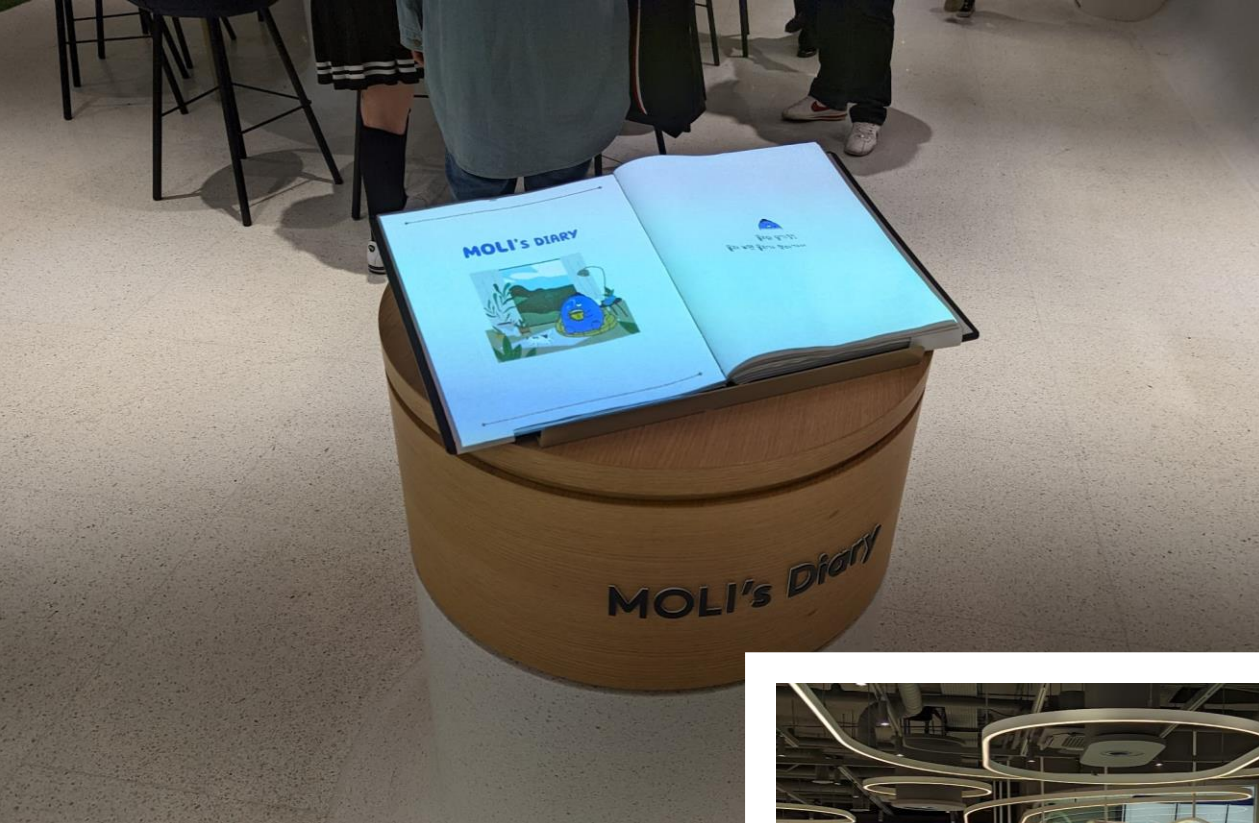
HAND SANITIZER

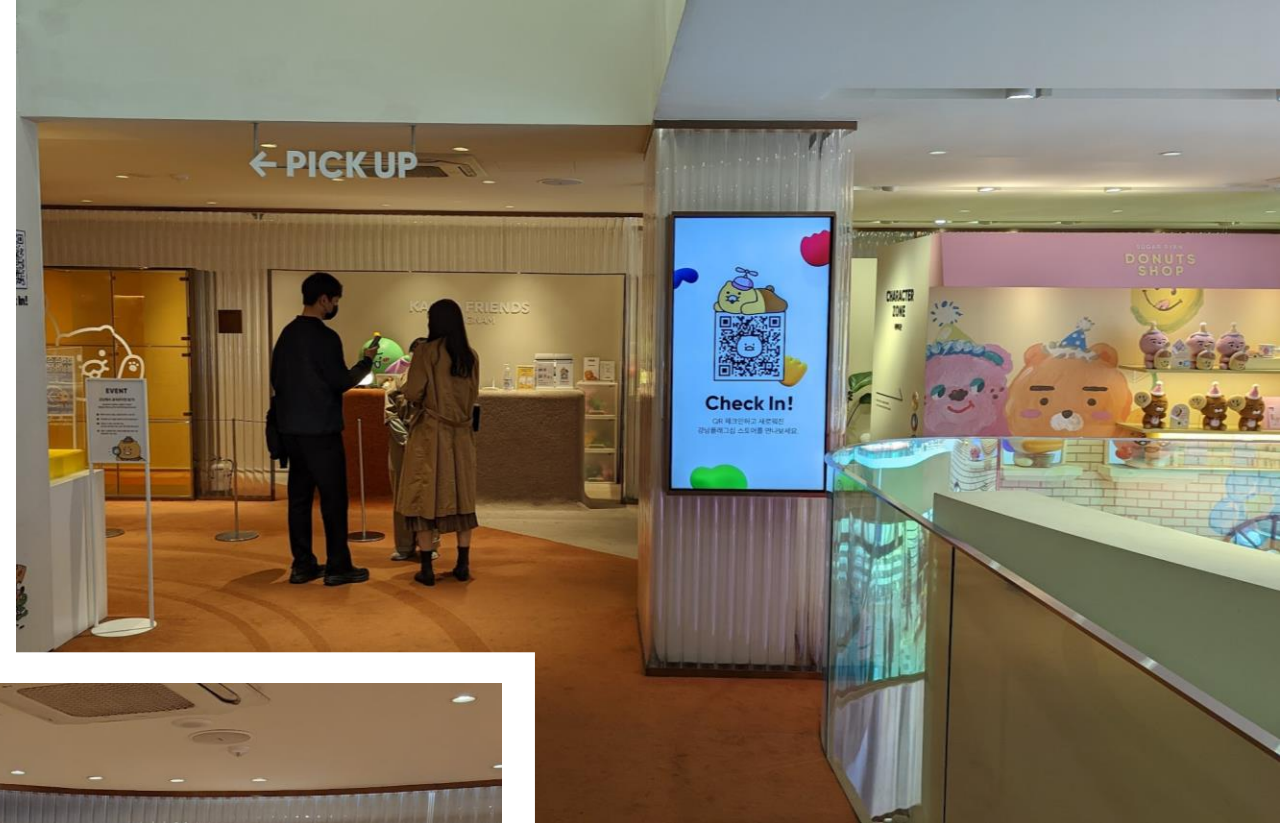
Use this station to clean your hands. We're taking every precaution for your health and safety.

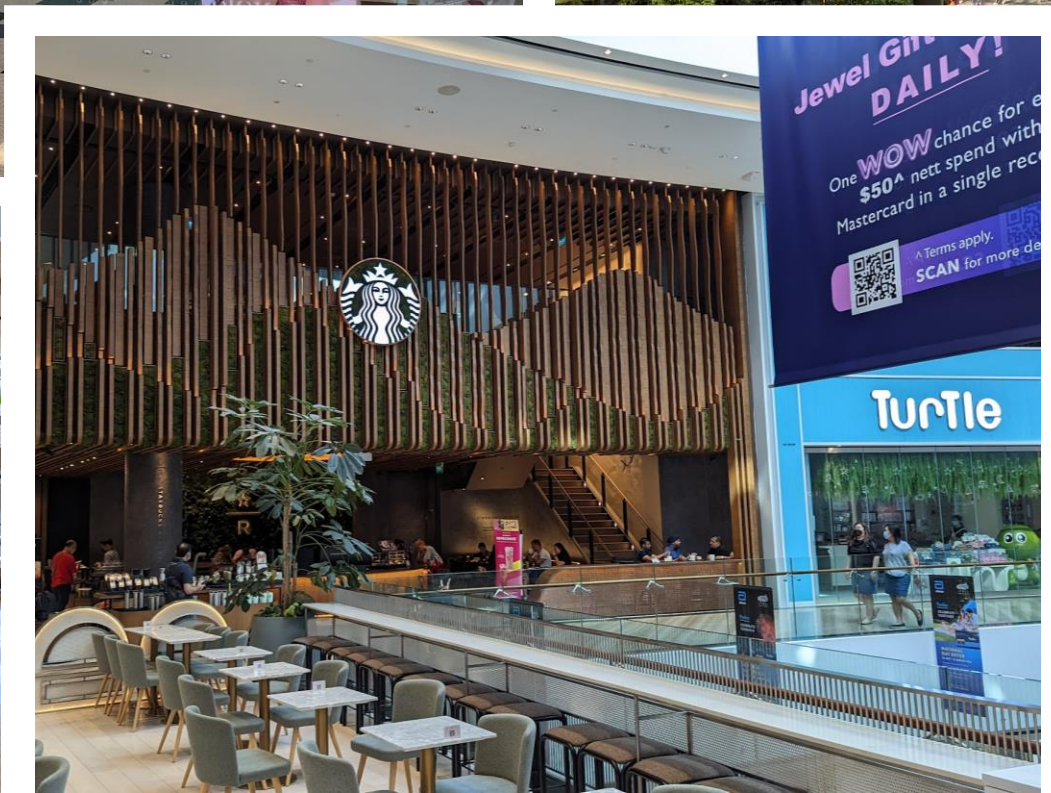
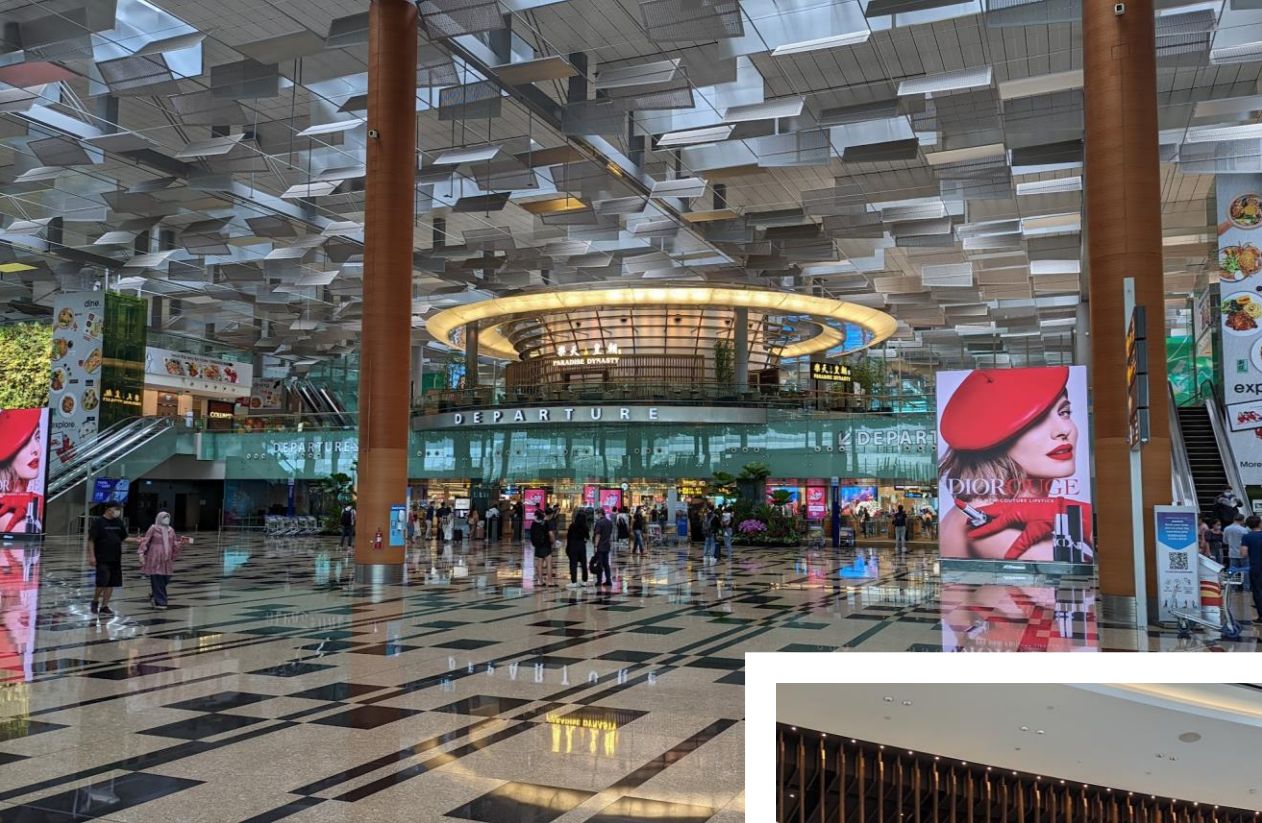
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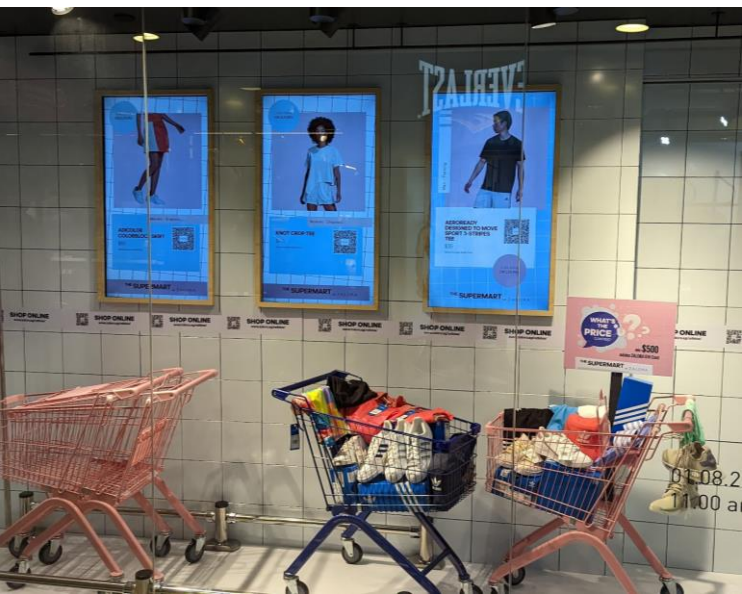
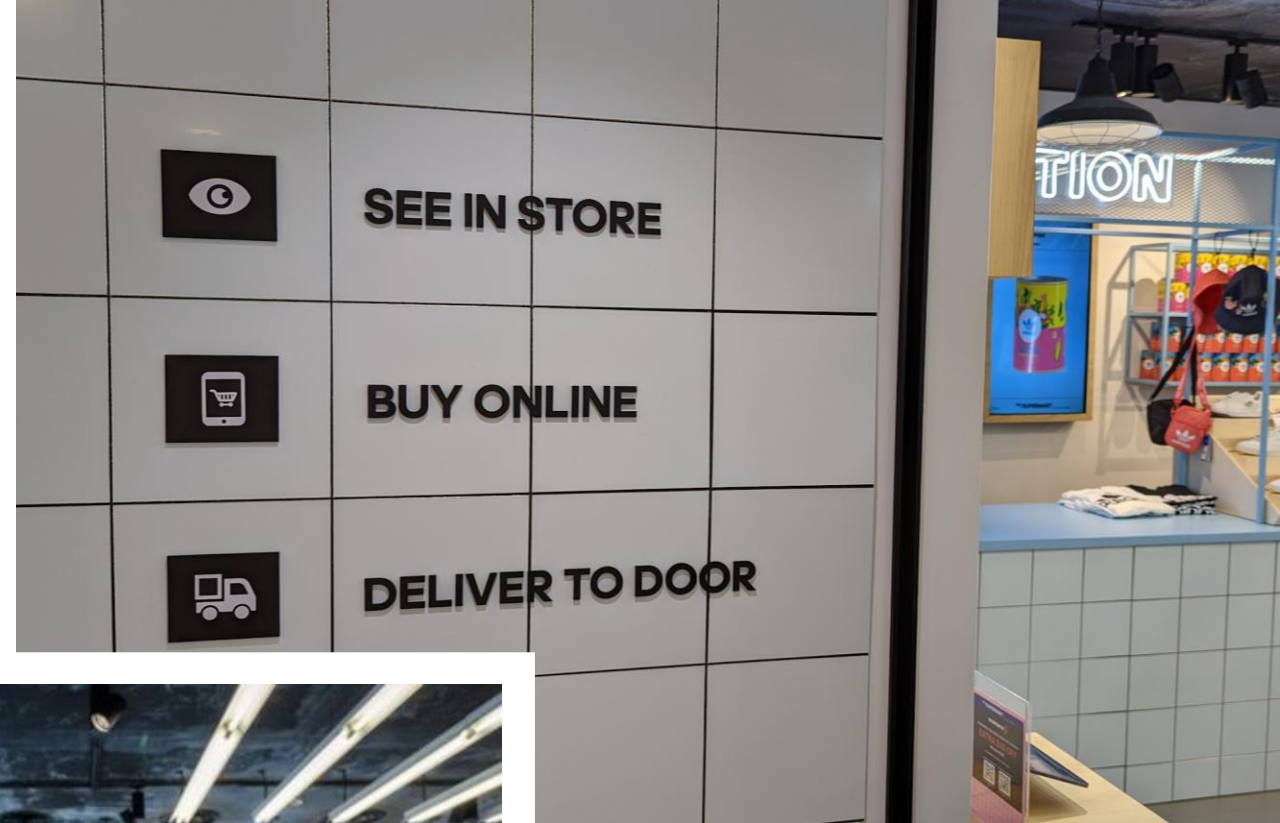












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Boom Retail Media





Retail Media

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Instore Dooh meets retail data

Already hugely successful business model in eCommerce

- Walmart 2021: 2.1bn USD (0.4% of total revenue)
- Amazon 2021: 31bn USD (6.6% of total revenue)

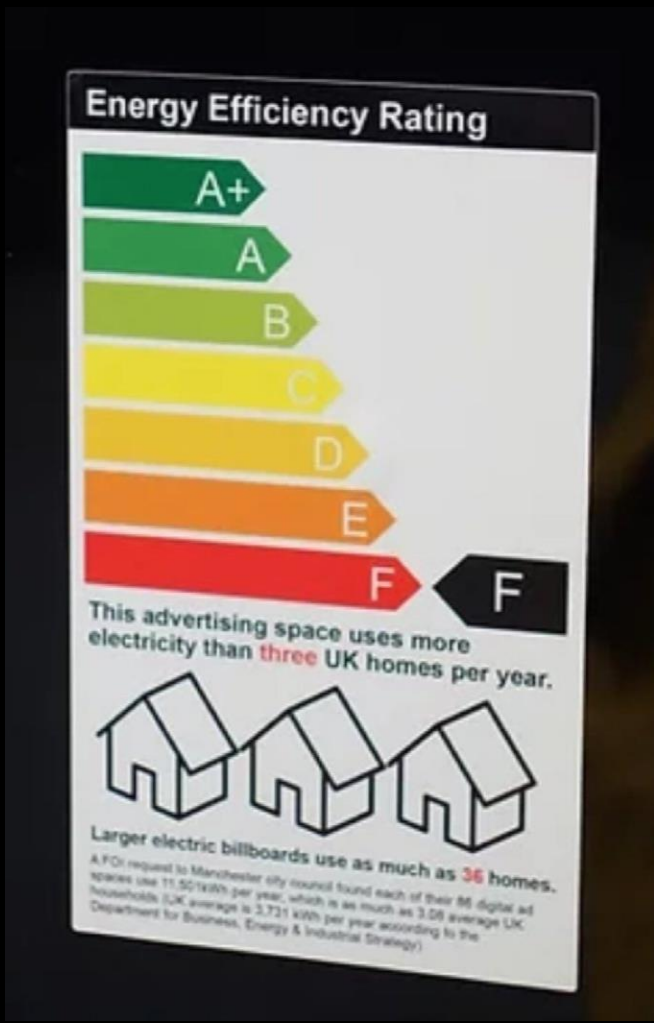
Dooh-based instore brand marketing needs retailer data (3rd party) for smart targeting, unlike flat-rate trade marketing



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Green Signage





Greenpeace UK  
@GreenpeaceUK

Can we stop being bombarded by adverts?



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Love Withdrawal?



Eco-Design Energy saving Circularity Recycling

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Black Content for LED

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Full power despite black content

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New directive in France



Repairability index

Bonus in Austria



Repair.eu Initiative



Replacing the existing
„take, make, break, waste”
model

Regulatory invidis keynote DSS ISE 2023 impact



Green Signage is top of the agenda

- Samsung
- LG
- PPDS
- Sharp/NEC

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Here at





IT Security

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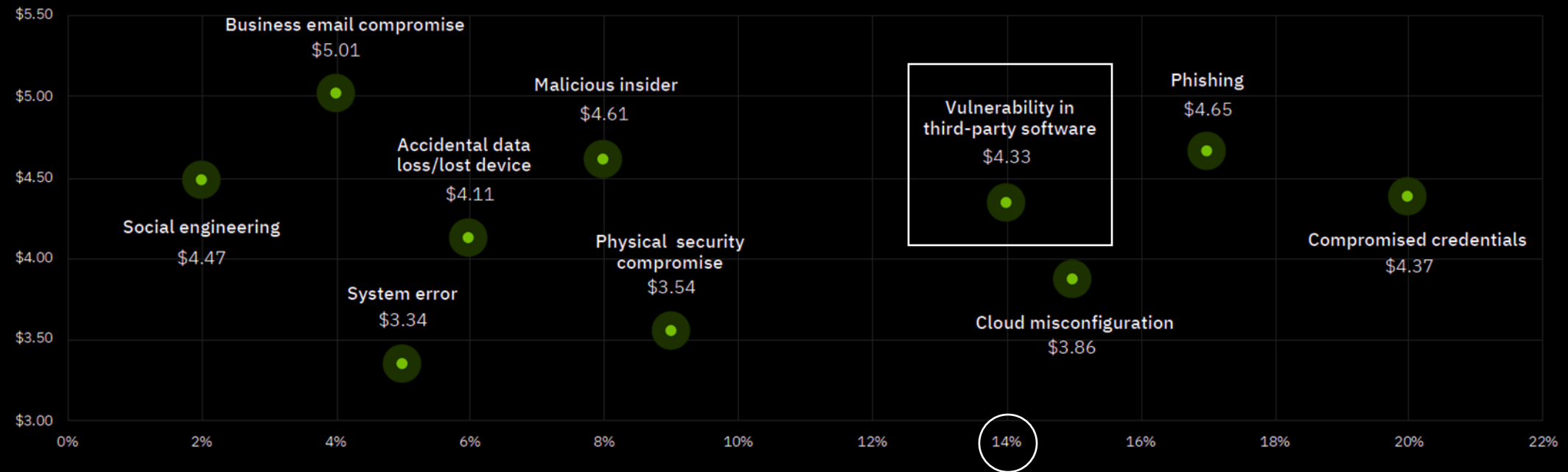
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Attack Vectors

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Average total cost and frequency of data breaches by initial attack vector

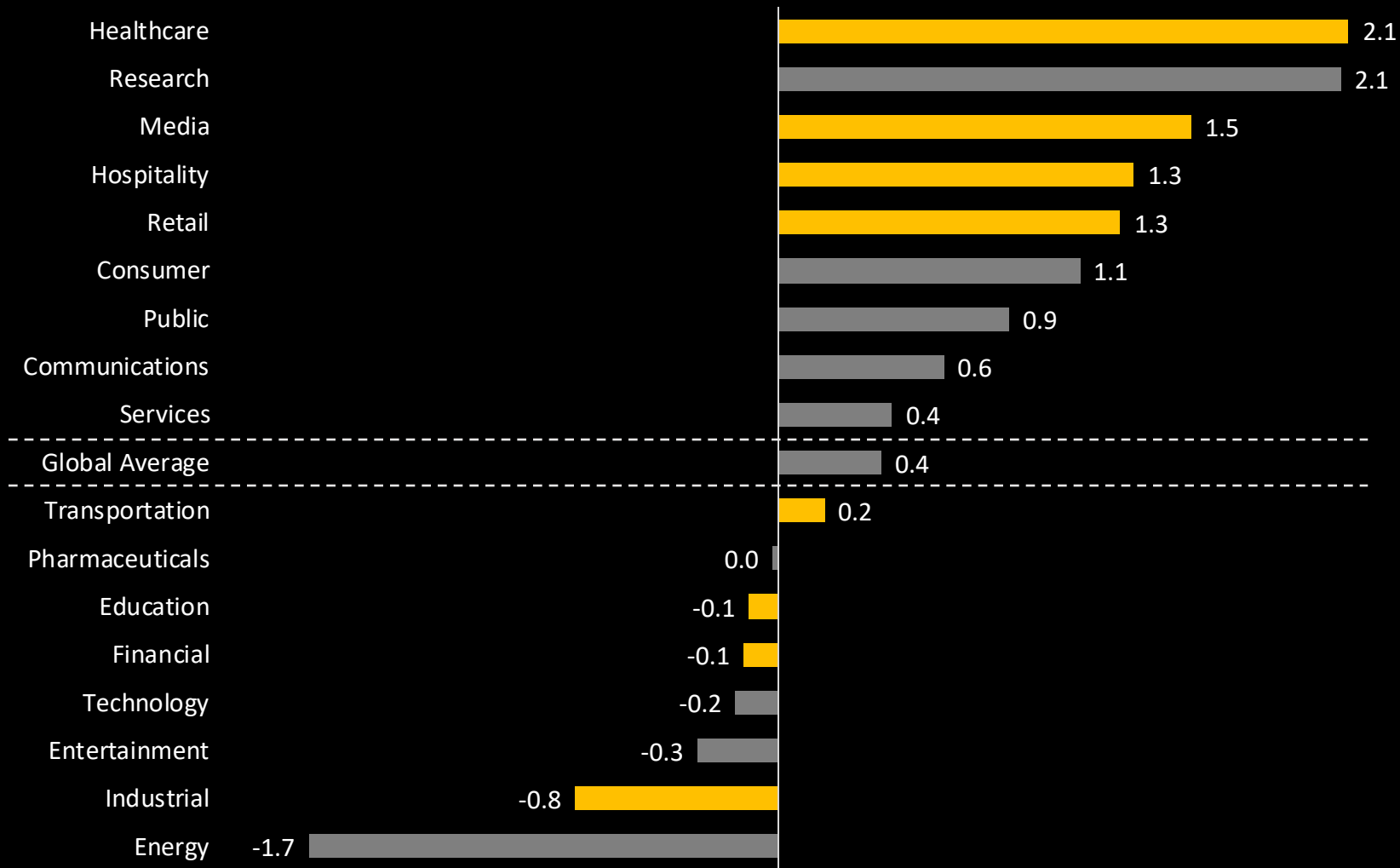
Measured in US\$ millions



Source: IBM Security Cost of Data Breach Report 2021

Increase in average costs of data breaches

2021 vs 2020 in mn USD



In the Spotlight

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Source: IBM Security Cost of Data Breach Report 2021, invidis



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Average total cost of a data breach by country or region

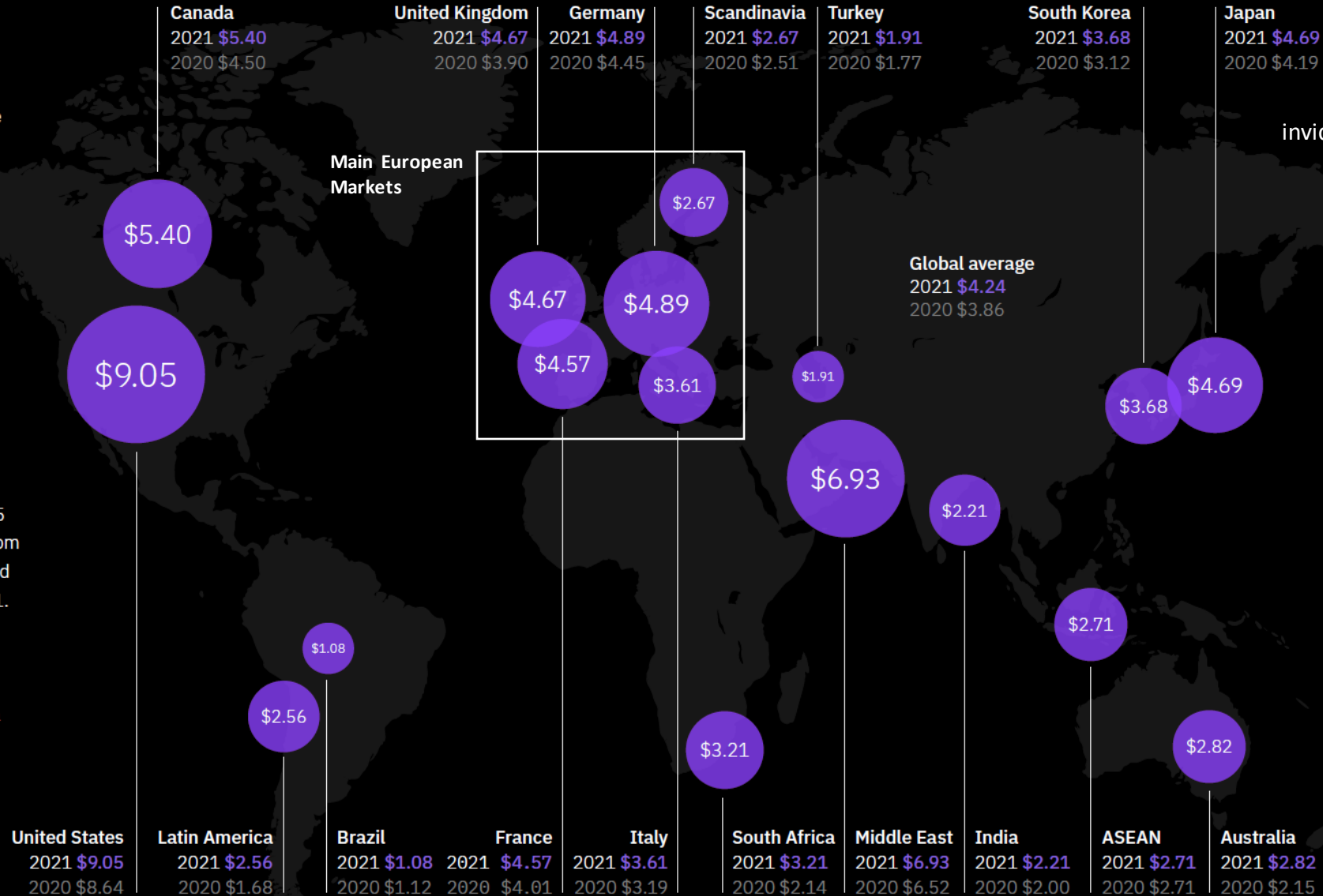
Measured in US\$ millions

The United States was the top country for average total cost of a data breach for the eleventh year in a row.

The top five countries and regions for average total cost of a data breach were:

1. U.S.
2. Middle East
3. Canada
4. Germany
5. Japan

These same five countries comprised the top five countries in the 2020 report, in the same order. The average total cost in the U.S. increased from \$8.64 million in 2020 to \$9.05 million in 2021. The Middle East increased from \$6.52 million to \$6.93M and Canada increased from \$4.50M in 2020 to \$5.40 million in 2021. Countries with the largest average total cost increase from 2020 to 2021 include Latin America (52.4% increase), South Africa (50% increase), Australia (30.2% increase), Canada (20% increase), the UK (19.7% increase), and France (14% increase). Only one country in the study saw a cost decrease, Brazil (3.6% decrease). One region, ASEAN, saw no change in average total cost (\$2.71 million, no change in 2021).



Average cost

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MS EUROPE. OFTEN REFERRED TO AS ISE, IS THE LARGEST AV SYSTEMS INTEGRATION SHOW IN THE WORLD. THE ANNUAL

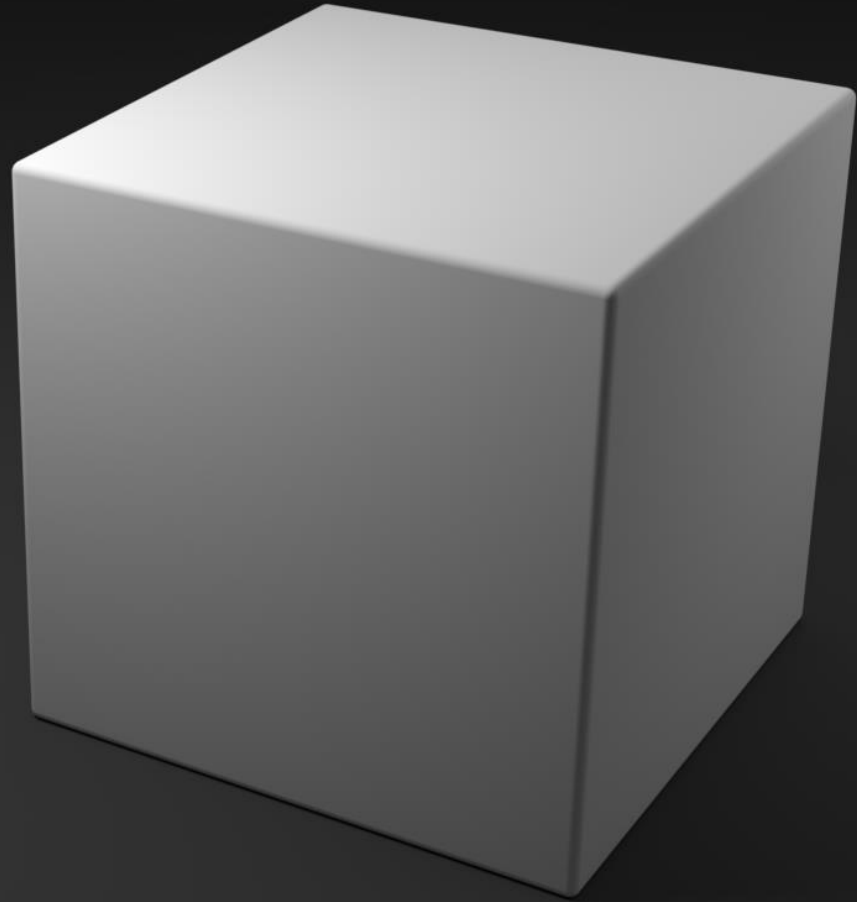
Future of Software

From Monolithic to Composable
Digital Signage Managed Services

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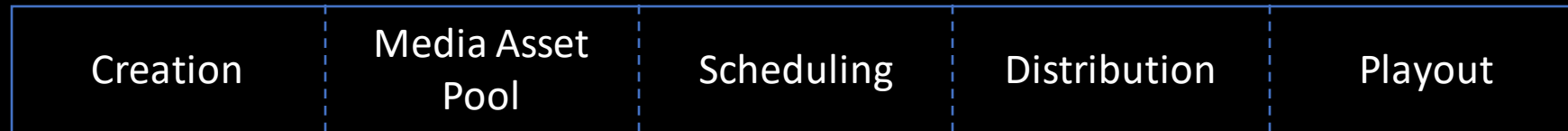


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From Monolithic to Composable

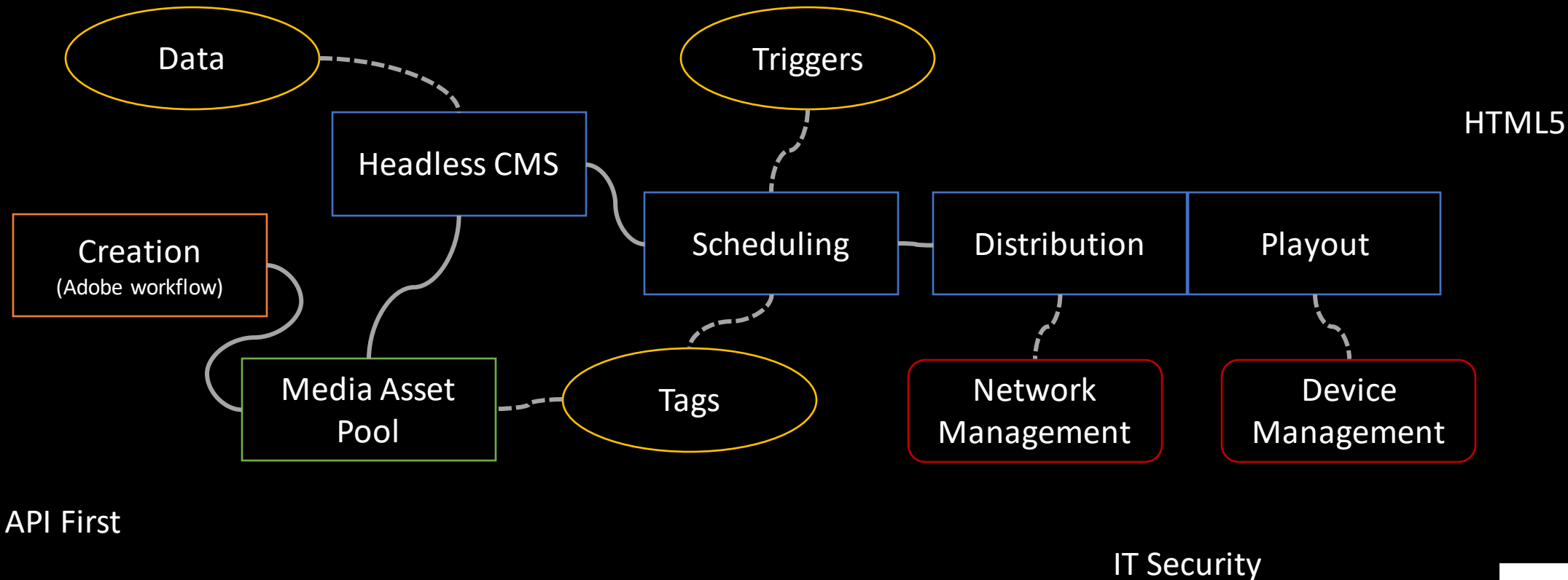
Monolithic Architecture

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Composable Architecture

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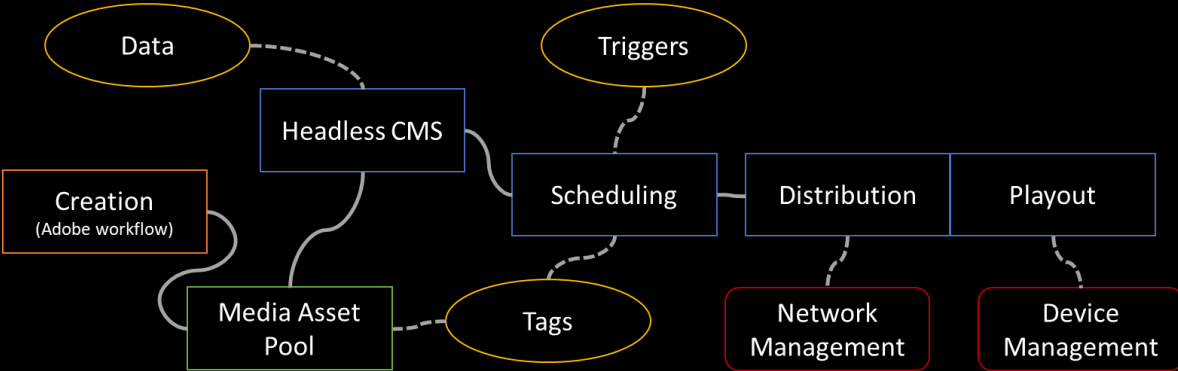
Software Evolution

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Monolithic



Composable



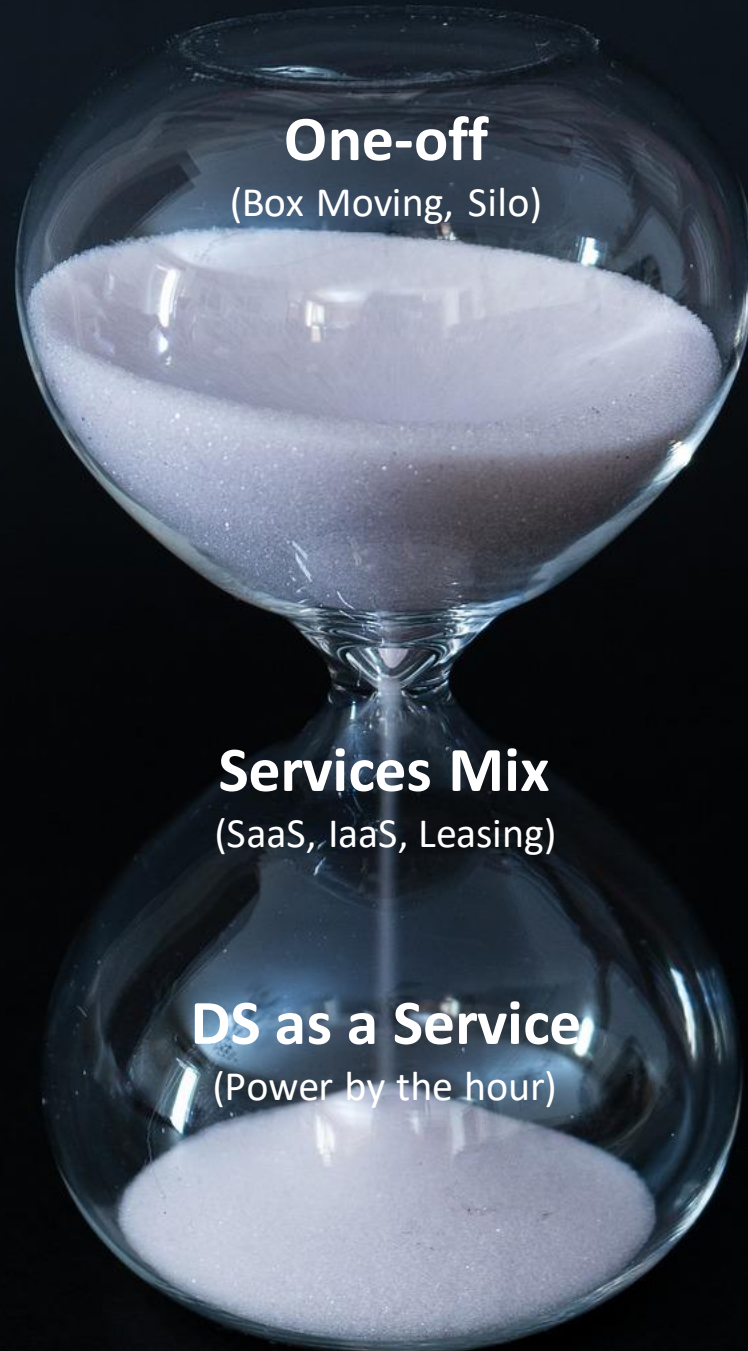


Digital Signage Managed Services

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DS Managed Services

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Drivers

DS Business Critical
Standards

Cost pressure

Core vs non-core

Cloud

Network size / structure

Business models

Convergence of DS, AV, and IT

Digital Signage Device Mgmt

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	On Premise	Cloud Hosted	Full Cloud
Content Management	Applications	Applications	Applications
	Data	Data	Data
	Runtime	Runtime	Runtime
	Middleware	Middleware	Middleware
	Operating System	Operating System	Operating System
	Virtualization	Virtualization	Virtualization
	Servers	Servers	Servers
	Storage	Storage	Storage
	Networking	Networking	Networking
	Device Management	Remote View	Remote View
Remote Control		Remote Control	Remote Control
Remote Execute		Remote Execute	Remote Execute
Rem. Diagnostics		Rem. Diagnostics	Rem. Diagnostics
Analytics		Analytics	Analytics
OS		OS	OS

Managed by

ISV / Integrator

AWS | MS Azure | Google Cloud

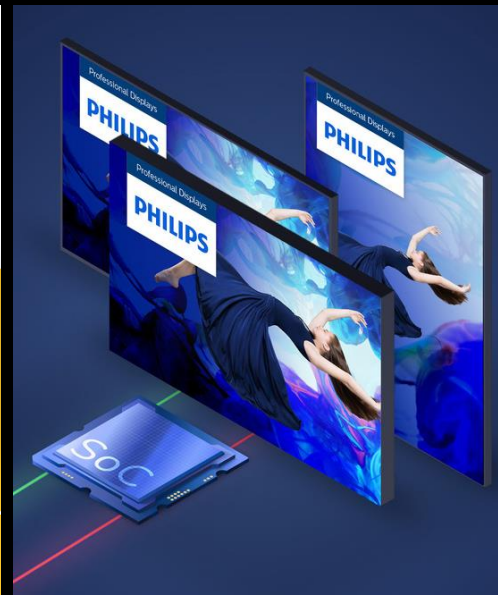
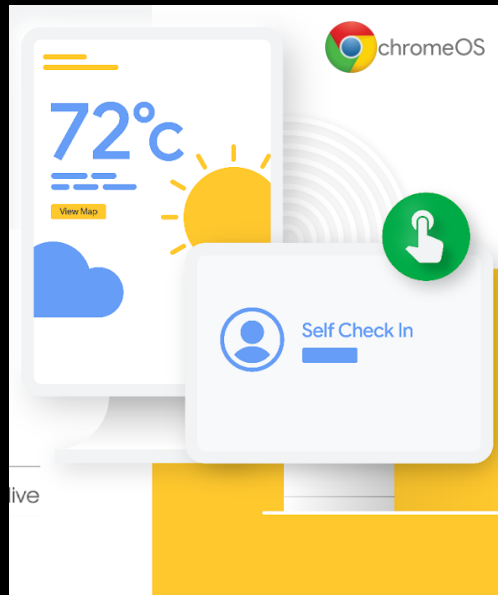


Device Management Maturity Model

Category	Remote View	Remote Control	Remote Execute	Rem. Diagnostics	Analytics
Maturity	Asset Management	Basic Power Control	1:1 Execute	Elementary status	Uptime
	Grouping, Tagging	Remote Settings	1:Many Bulk Execute	Remote Logs	PoD
	Health Checks	Settings Validation	Auto-healing	Remote Console	PoP
	Real-time monitoring	Settings Recovery		Real-time Telemetry	Power Consumption
	Remote View/Screenshots			Alerting	Warranty
	Proactive Monitoring			Audit Trails	Maintenance
					Usage

Device Mgmt Maturity Model

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Digital Signage Managed Services

- Google Chrome OS
- PPDS Wave
- Samsung VXT
- SignageOS

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Here
at  **integrated
systems
europe**





Engaging Experiences

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Content Concepts Creation

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Goodbye Metaverse

Welcome Generative AI?

ChatGPT

Generative AI Digital Signage

Text

Chat GPT
DeepL Write

Graphics

Dall-e
Stable Diffusion
Midjourney

Music

Musi-co
Amper Music

Voice

Vall-e

Code

Codex (GPT-3)



**New twists
to
old roles**

Customer Centricity
Desirability
Personalization
Expert Advice
Convenience

**Old format
with
new roles**

Storytelling
Purpose
Social Experience
Re-commerce
Social Media Stage

The new store engagement

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In cooperation with


dan pearlman
GROUP

 digital
signage
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SHARED SPACES

YEARBOOK 2020

DIGITAL SIGNAGE & DOOH

digital signage summit events



GREEN SIGNAGE

How ECO-DESIGN, CIRCULAR ECONOMY and SUSTAINABLE OPERATIONS shape the future of the industry



YEARBOOK 2021

DIGITAL SIGNAGE & DOOH



BUSINESS CRITICAL

IN COOPERATION WITH STATE-NET

DIGITAL SIGNAGE 4.0



YEARBOOK 2022

DIGITAL SIGNAGE & DOOH

available
05 July 2023

ENGAGING EXPERIENCES

CONTENT, CONCEPTS AND CREATIONS



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The Agenda

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Business Critical