



# DIGITAL TWINS

**AS A NEXT STEP  
IN OPERATIONAL EXCELLENCE**



---

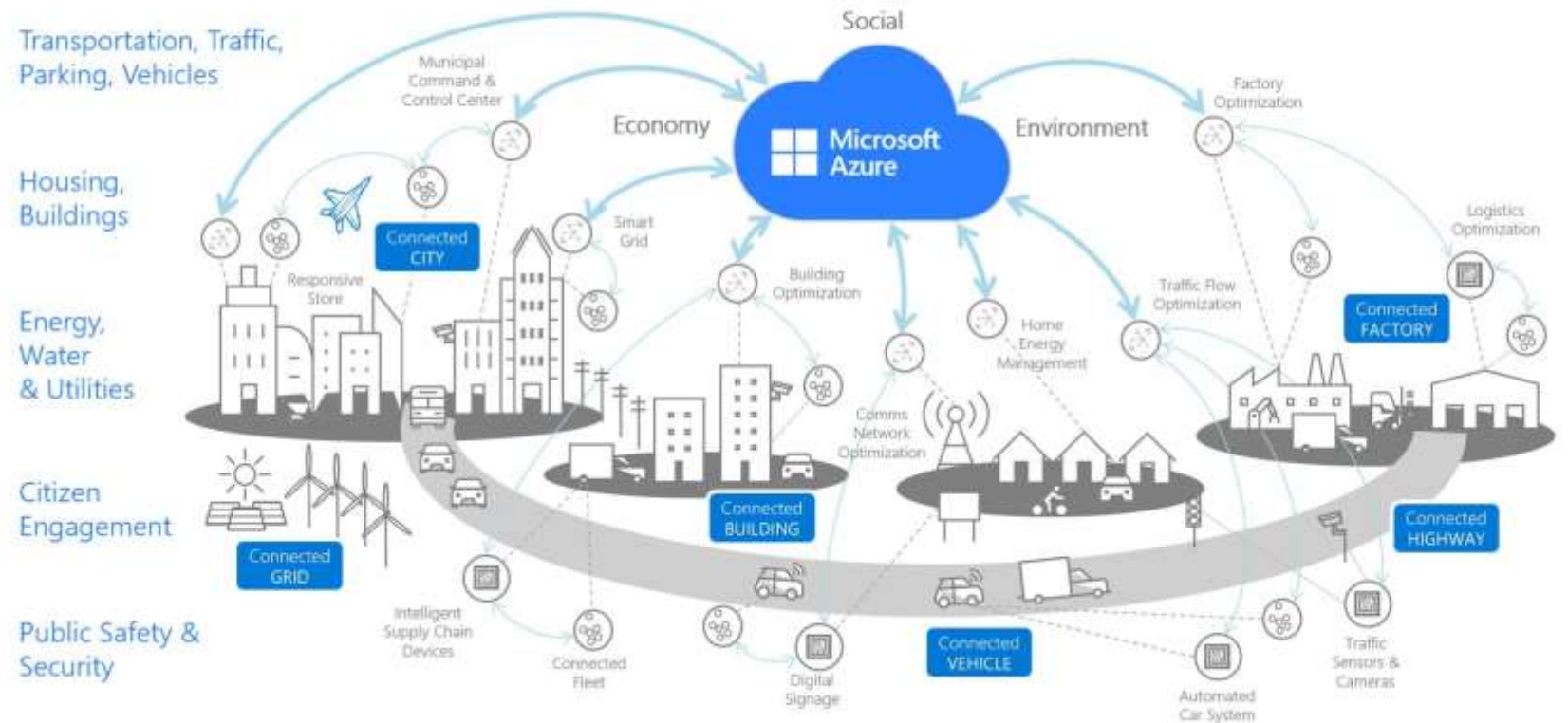
# DIGITAL TWIN

What a digital twin can be?

---

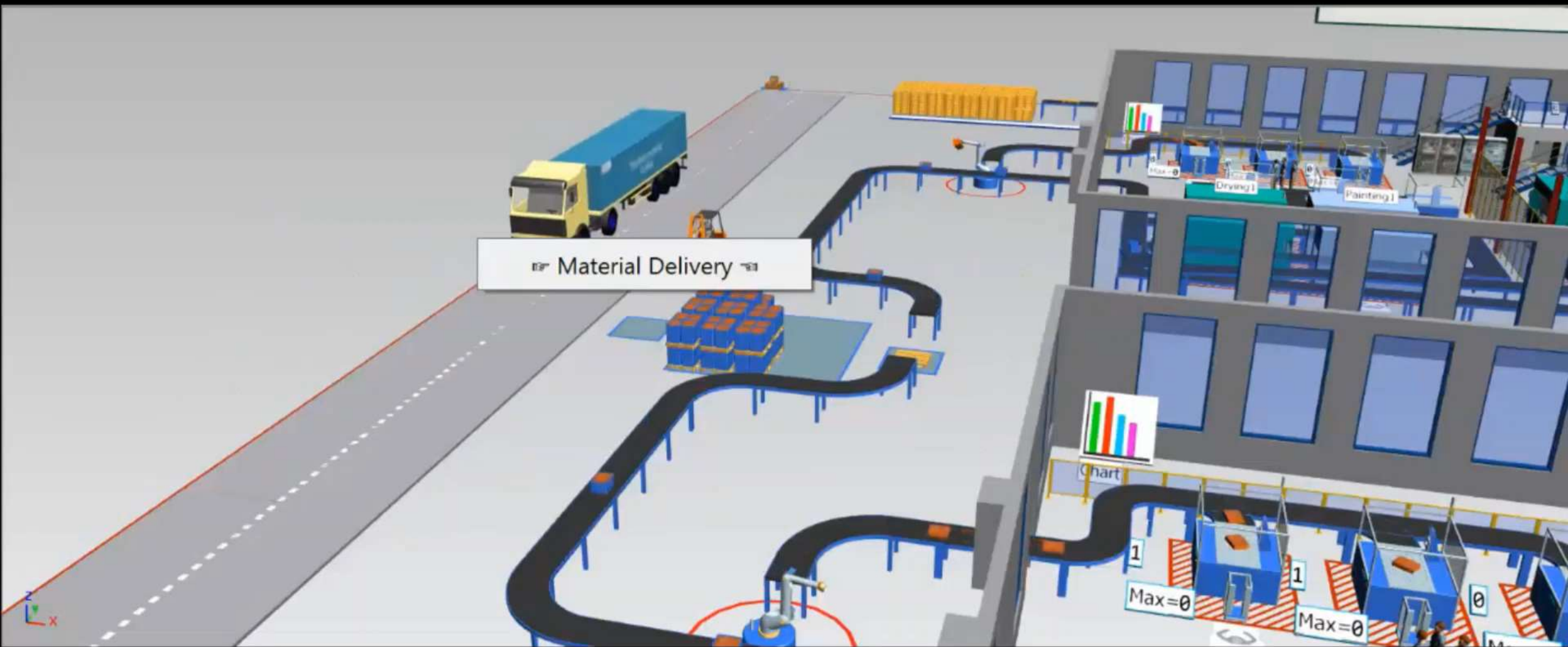
# The data

## Azure Digital Twins



# BIM – Building Information Management















Yeah, pups. My pups.





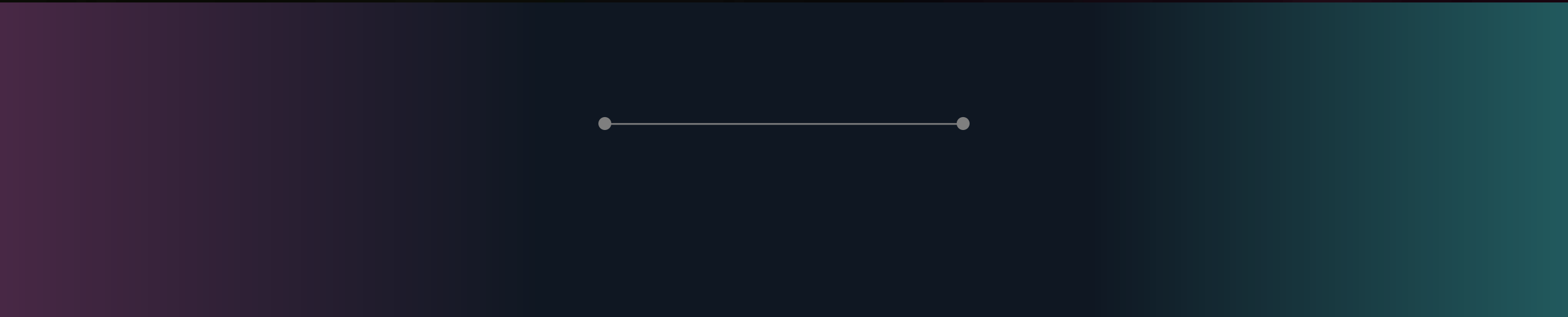
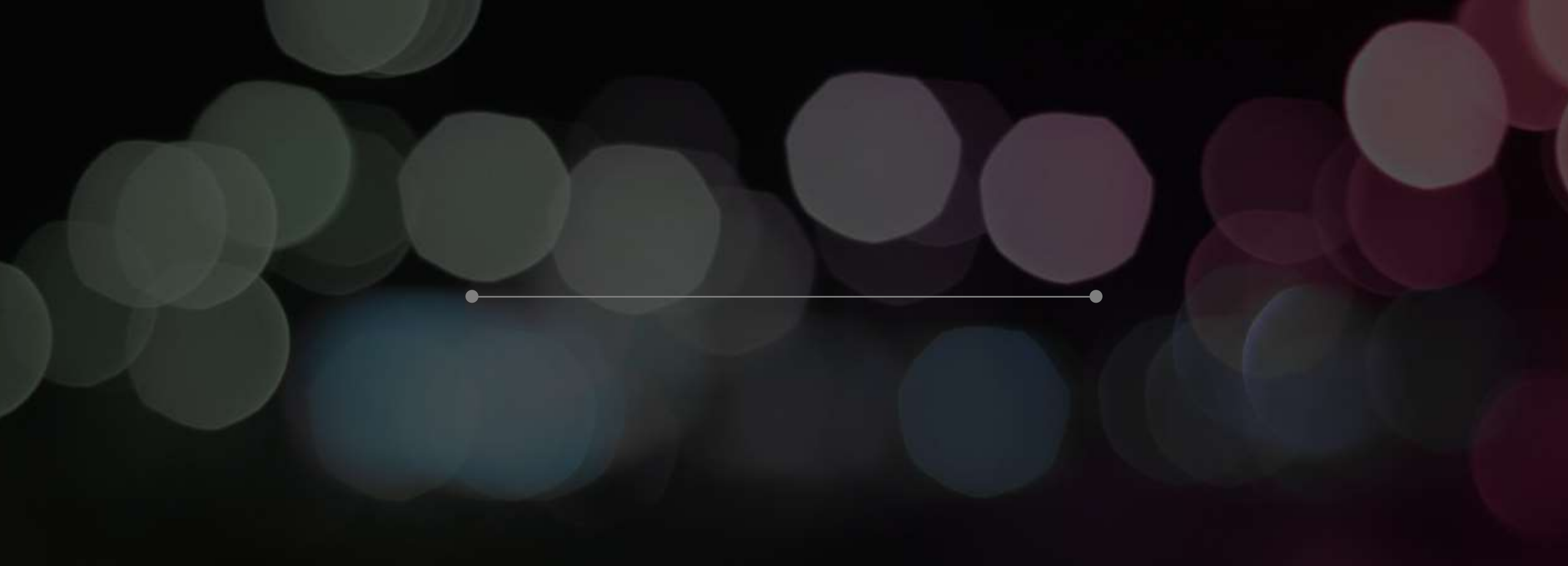


---

# TWINZO APPROACH

What if we combine all the stuff under one roof?

---





- 8
- 7
- 6
- 5
- 4
- 3
- 2



PEOPLE



Position



Occupancy

EXPLORE



Meetings



Phone booths



POIs



Health & Safety

ENVIRONMENT



Temperature



Humidity



CO2



All clients



Alis-Tech



Al-Malaz



BENTELER



BMW



Borislavka



BSS



Continental



CPraha



Demos



DITEC



E M CODE TECHNOLOGY



FIREHOUSE SUB







2



# Global Digital Twin *In real-time and 3D*

## MODULES

- **LOGISTICS** for optimization and automatic delivery management
- **WMS** for real-time update and overview
- **PRODUCTION** for every assembly line and every system for quick decision making
- **HEALTH & SAFETY** for threat recognition and emergency response
- **QUALITY** for reduction of error rate at minimal costs
- **MAINTENANCE** for facility management, effective & timely response and employee's wellbeing
- **REPORTING**
- **IOT** for connectivity and all Internet of Things connected devices
- **RTLS** for positioning (people, material, equipment) and navigation for external suppliers
- **3<sup>rd</sup> PARTY INTEGRATION** e.g., MES / WMS / SAP / ERP / PLC / HSE





# Approach & Vision

1



## Connecting ALL Data

First, we connect all existing data sources.

e.g., MES, ERP, SAP, PLC, WMS, etc.

If a source isn't available but would be of value, we provide it.

(e.g., Plastic Omniums twinzo has 38 Internal Systems with 208 Critical KPIs connected to it.)

2



## Global Digital Twin

We sort, unify and visualize all systems under one roof and your Global Digital Twin is ready.

All of this happens without you noticing or having to adjust or shut down anything.

Cross-departmental analytics is one of the first benefits.

3



## Vision - M.A.C.E.P.

**Manage** **Analyze** **Compare** **Evaluate** **Predict**

Everything under one roof (Data Lake), gives you the perfect overview and enables to deliver the information in context.

Smart notifications on your phone are only one of the ways.

twinzol



3



## M.A.C.E.P. *Future Vision*

TWINZO IS DATA SOURCE AGNOSTIC, WHICH GIVES YOU  
ENDLESS POSSIBILITIES

**Manage** your facility directly from your phone

**Analyze** data in real-time and 3D

**Compare** simulations with hard data and vice versa

**Evaluate** predictions and simulations

**Predict** in contextual meaning





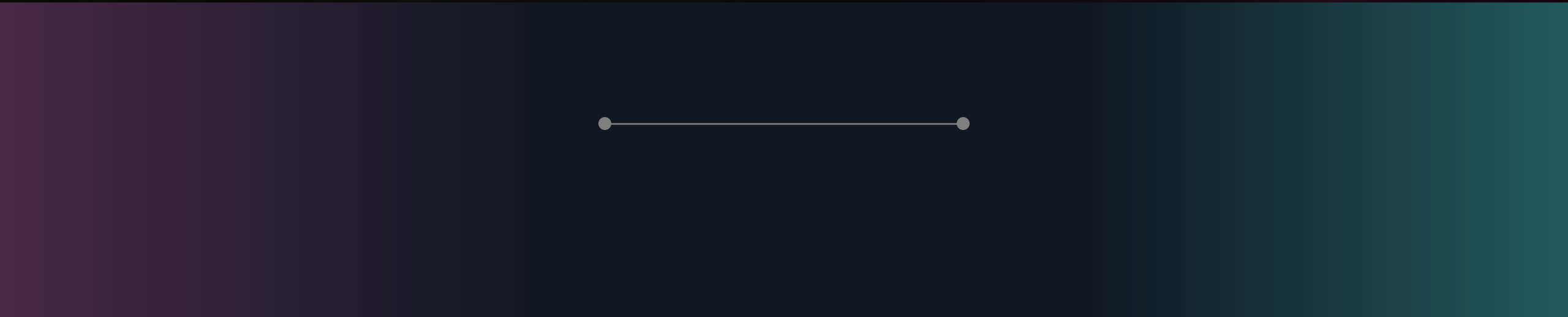
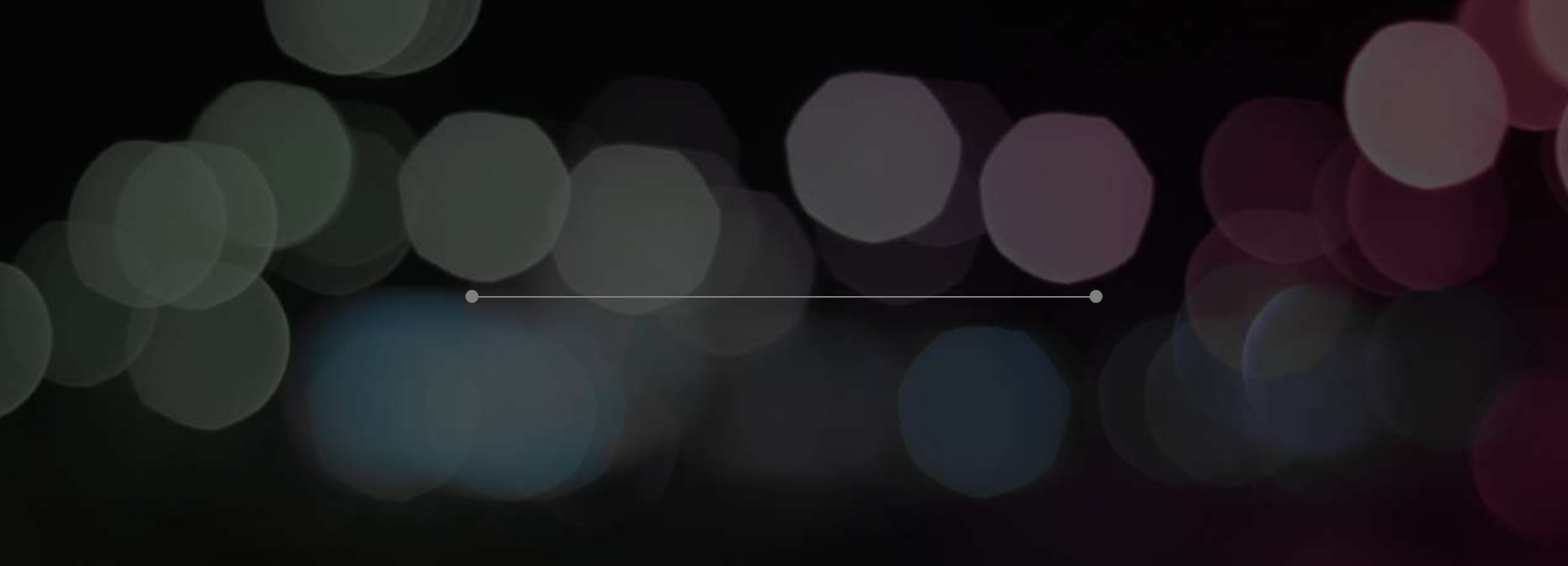
---

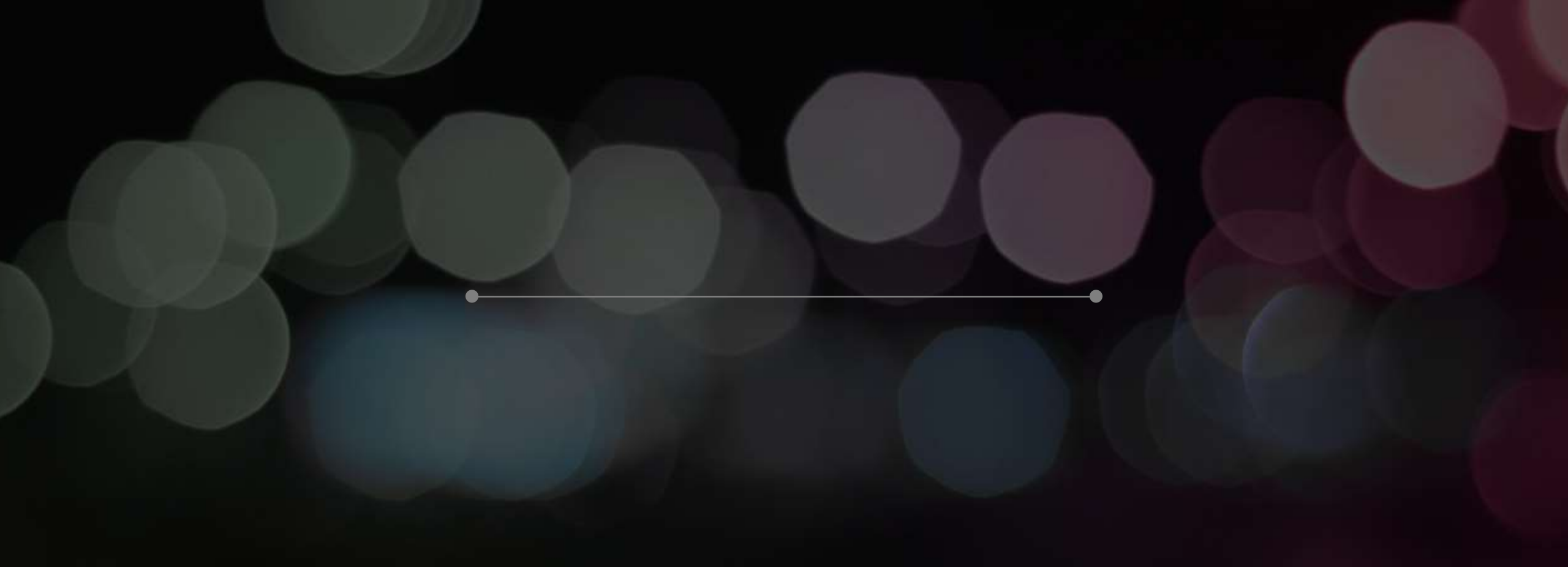
# USE-CASES

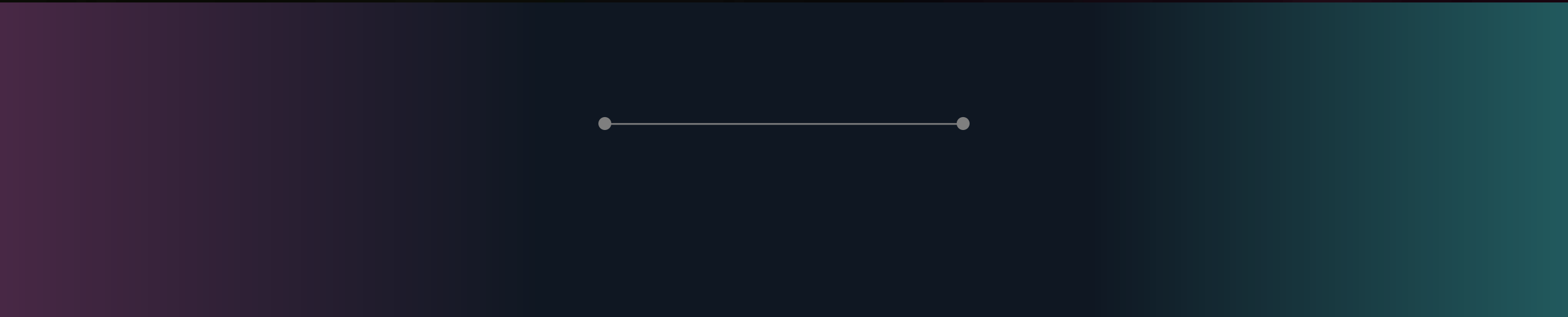
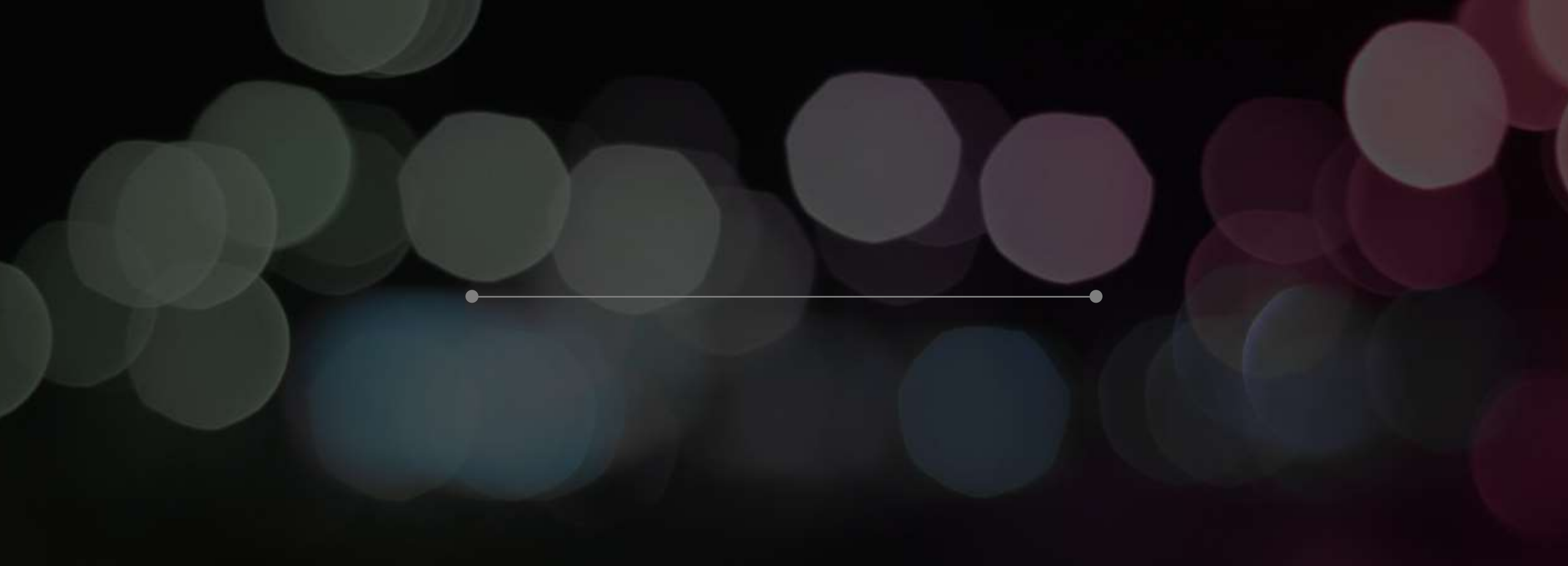
Already implemented and running at various sites worldwide

---

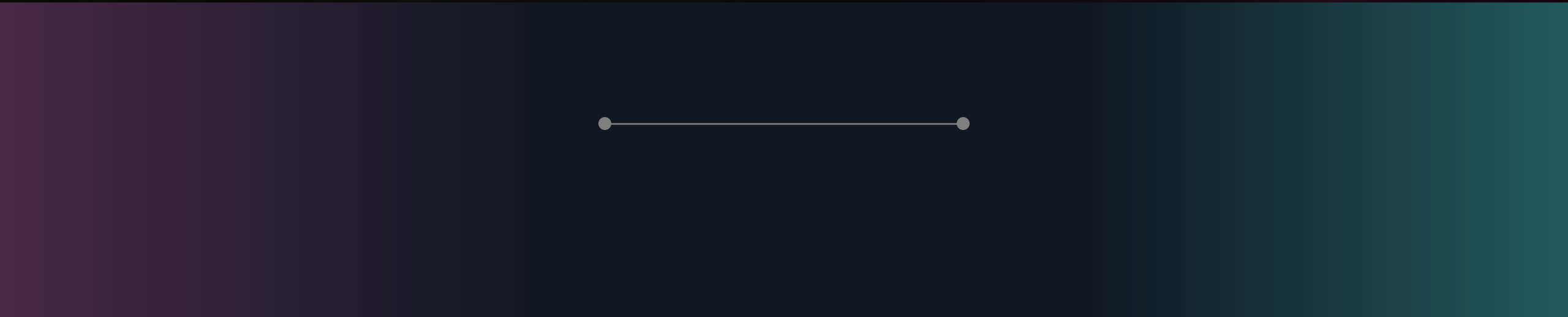
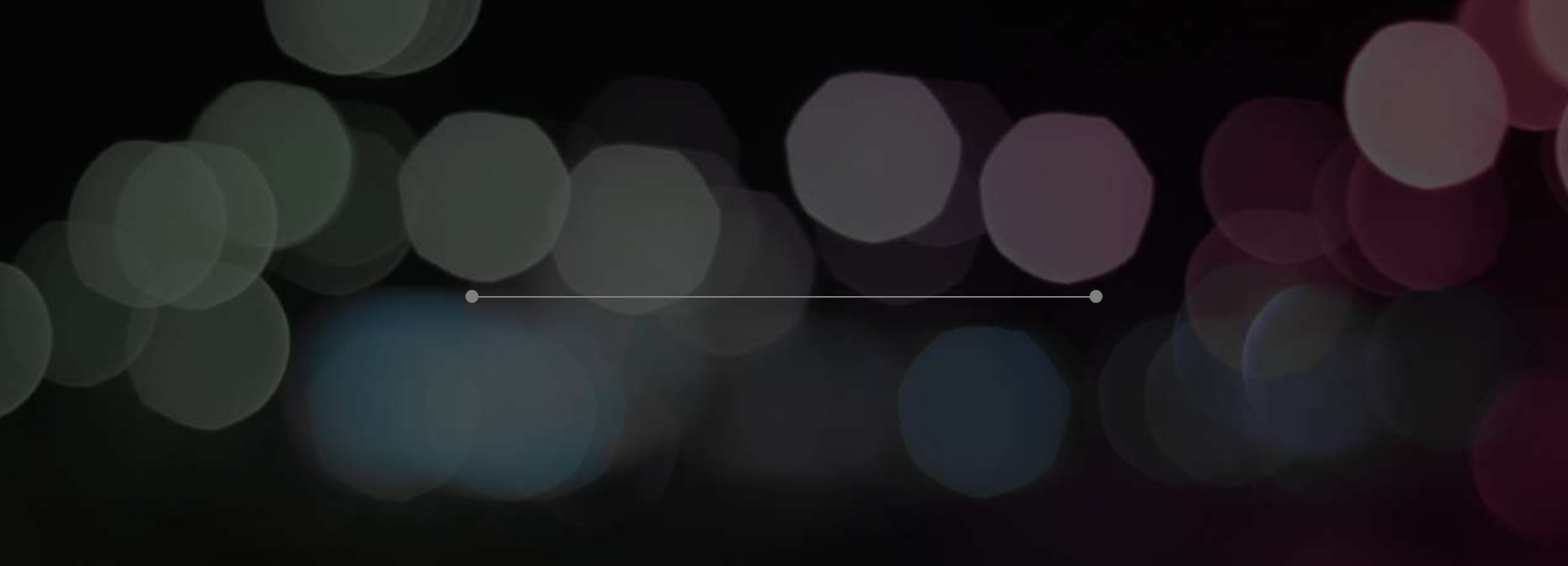


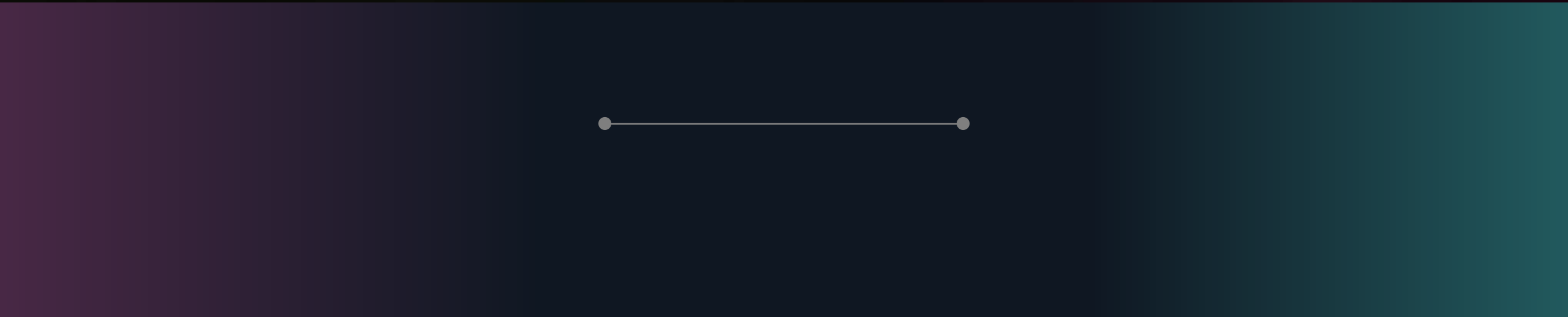
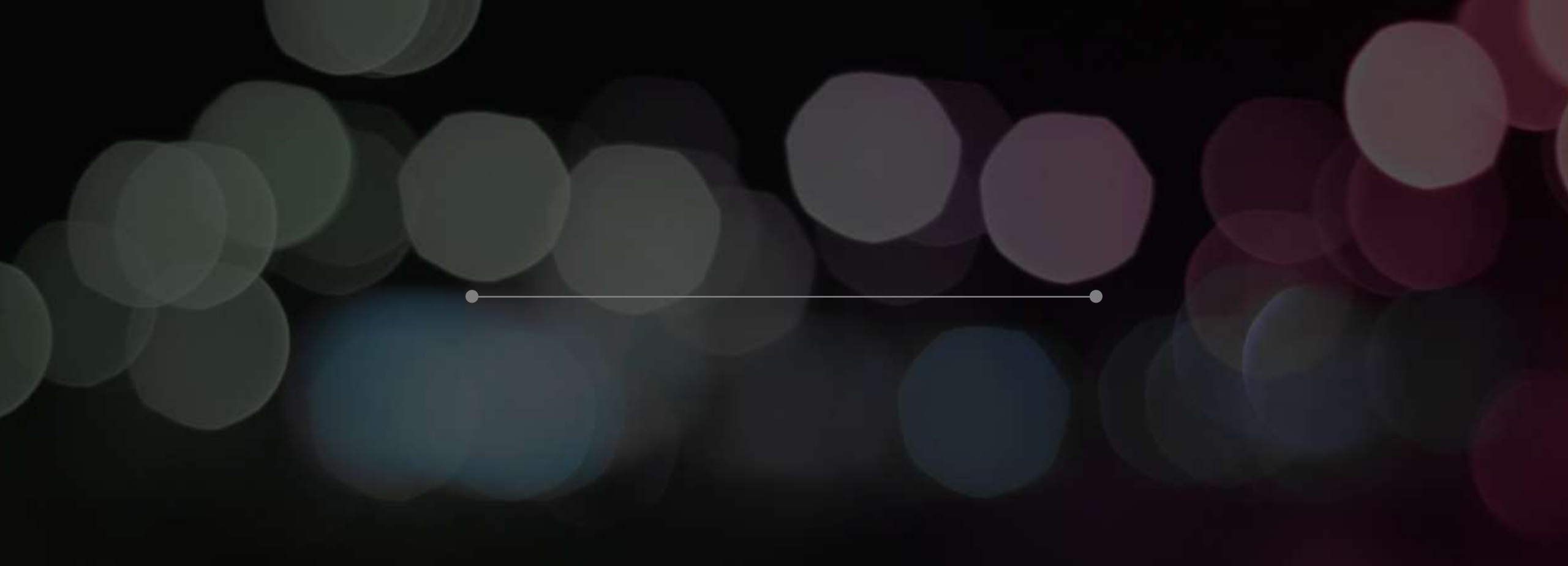


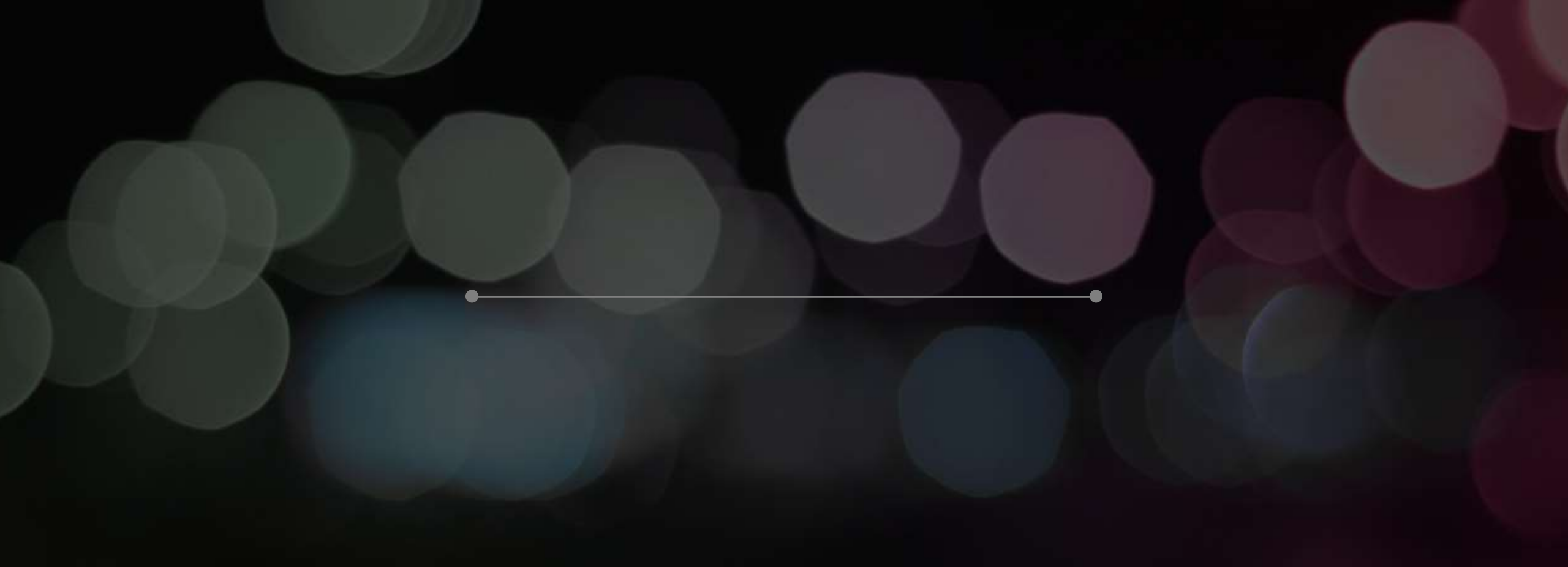


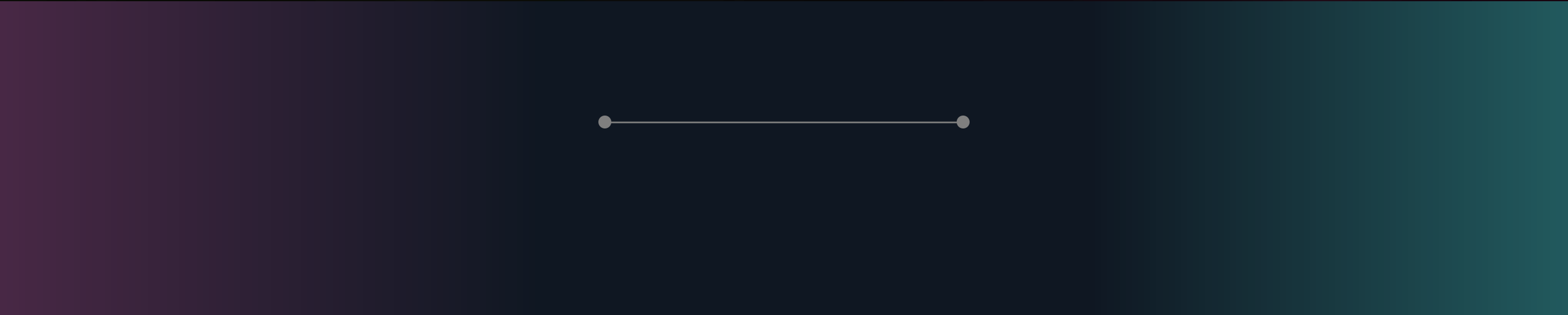
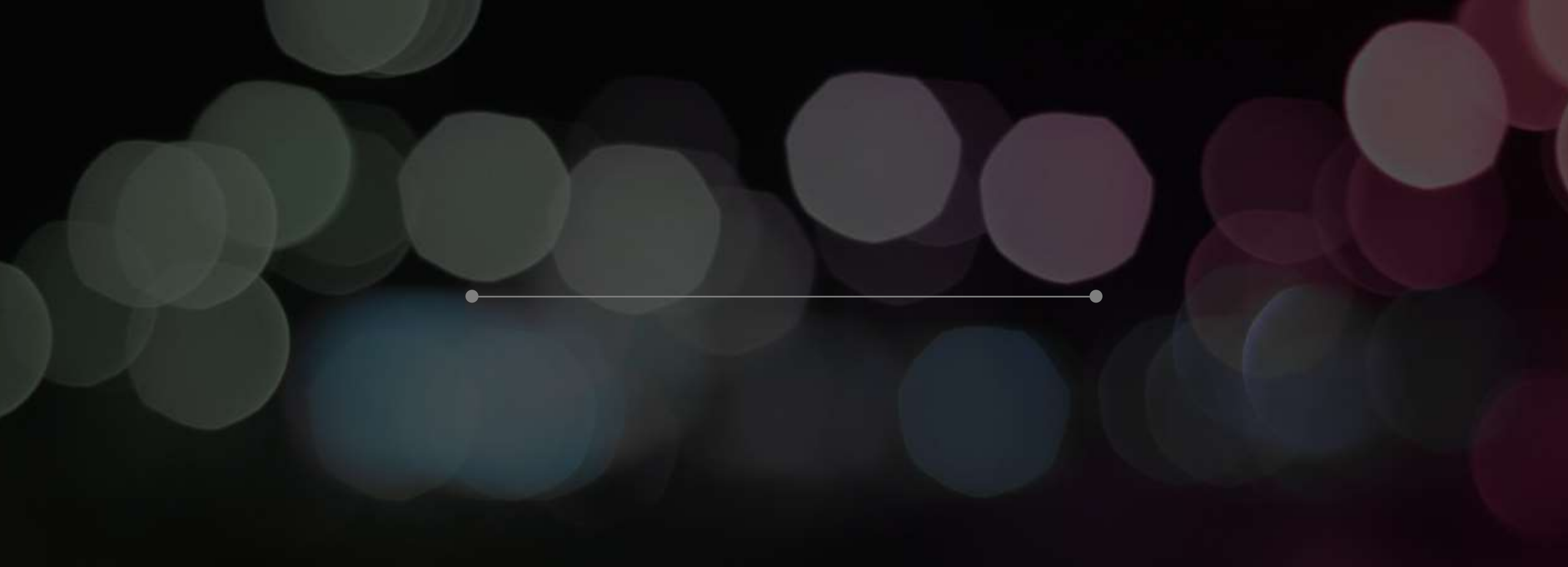
















# 3<sup>rd</sup> Party Systems – e.g., SAP Integration

## Purpose

- Production data of all different kind under one roof, accessible from a mobile device.
- Data connected directly into the 3D Live Digital Twin.
- Visualized according to the real-life factory.
- The possibility of perceiving several factors and conditions in certain context.

## Solution

- Full utilization of the internal Wi-Fi network minimizes the required resources.
- Seamless integration with the SAP system over API.
- Updates in real-time.

## Benefits

- Unprecedented access to vital production data.
- Fully customizable notifications based on your preferences.
- Faster reaction time to critical situations.
- Higher machine utilization, thanks to an OEE detailed monitoring and preventive maintenance actions (future for predictive)

## Technology



Wi-Fi



twinzo





# Thank you

**+421 (948) 494 919**

**[info@twinzo.eu](mailto:info@twinzo.eu)**

**<https://twinzo.eu/>**

