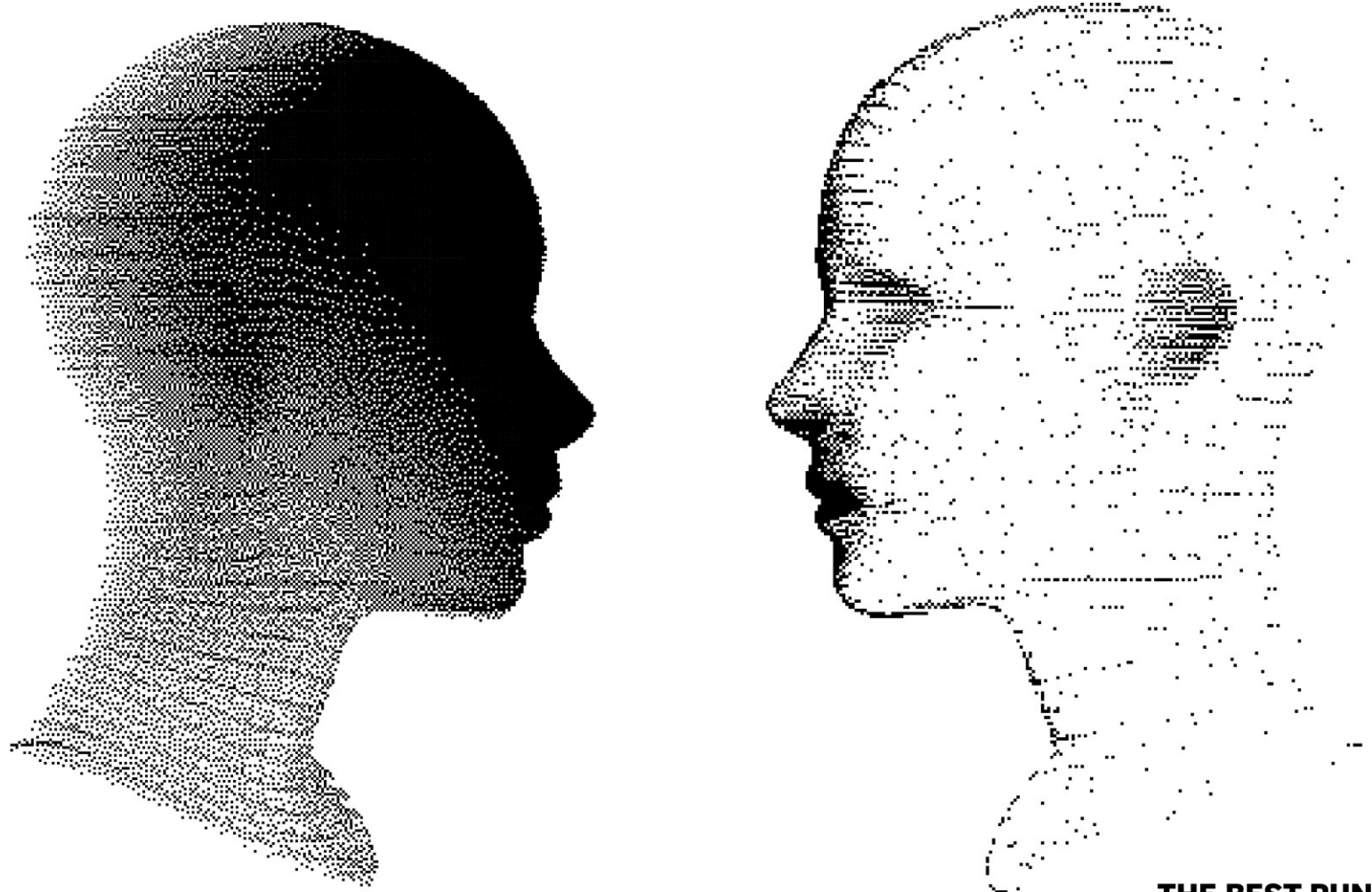


# Der **digitale Zwilling** im Bauwesen als Grundlage für Kosteneinsparung und operative Sicherheit durch vorausschauende Wartung



Alexander Finger, SAP Schweiz  
Natalie Schnelle, SAP Schweiz

PUBLIC

# EINWEIHUNG



Statens vegvesen  
Trygt fram sammen  
Gemeinsam  
sicher voran



Kjetil Sletten • 2nd  
Senioringeniør i Statens vegvesen, Bruseksjon  
20h • 🌐

Da ble dette prosjektet fullført og #reservebru åpnet i går 23. mars

<https://lnkd.in/dRyGPUTb>

<https://lnkd.in/dputppqY>

Rate this translation · 🌐

This project was completed and #reservebru opened yesterday 23 March.

<https://lnkd.in/dRyGPUTb>

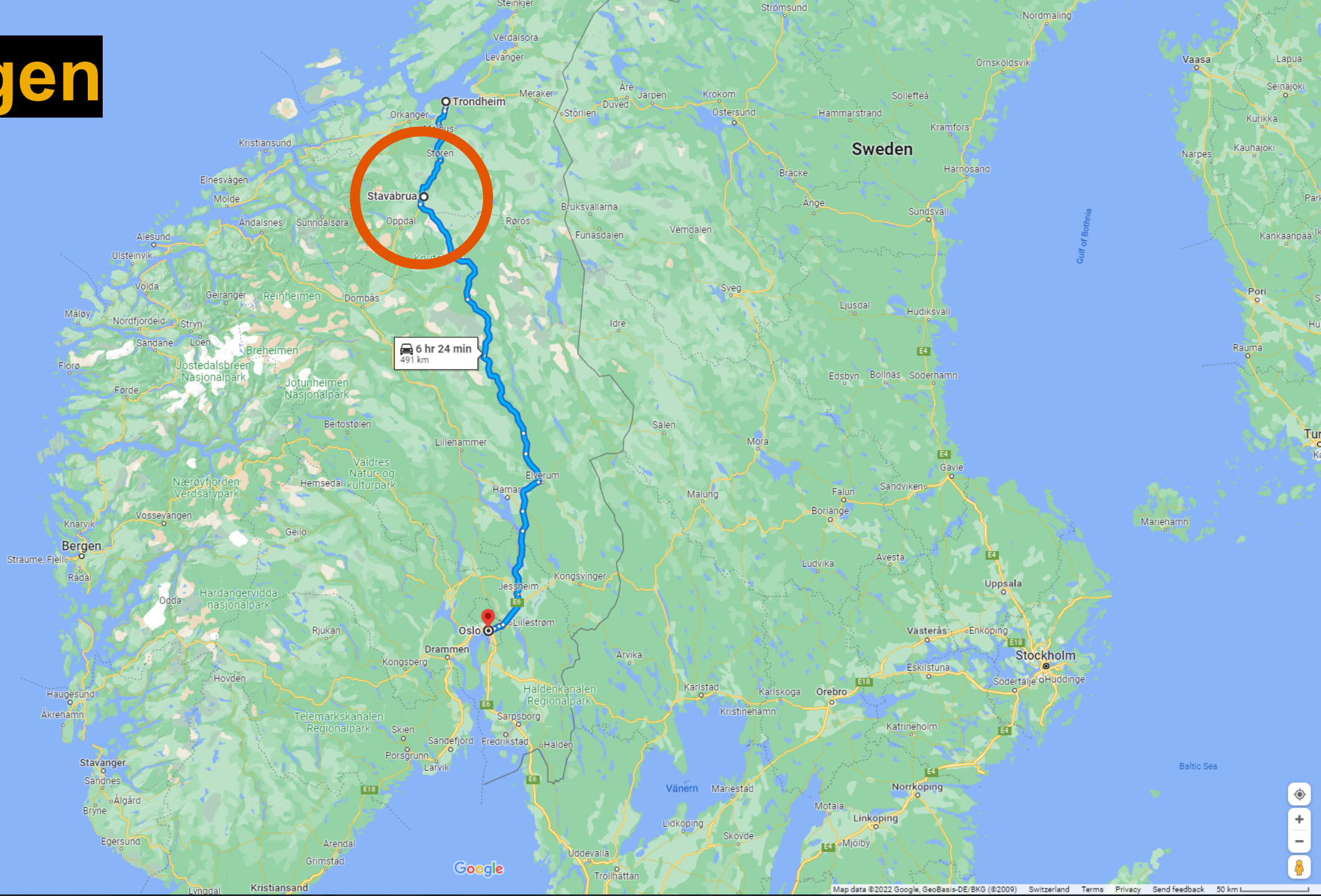
<https://lnkd.in/dputppqY>

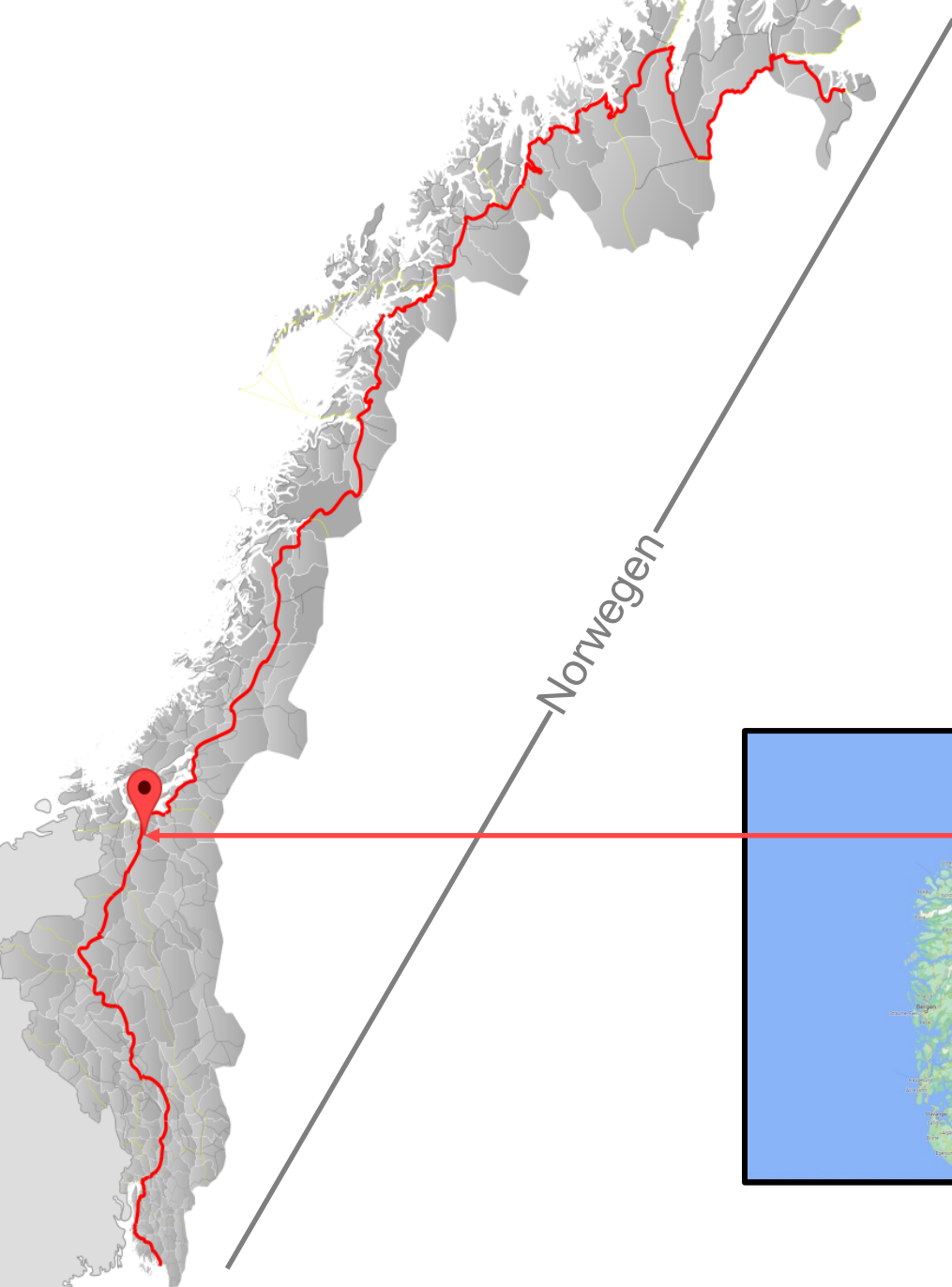


👤 You and 14 others

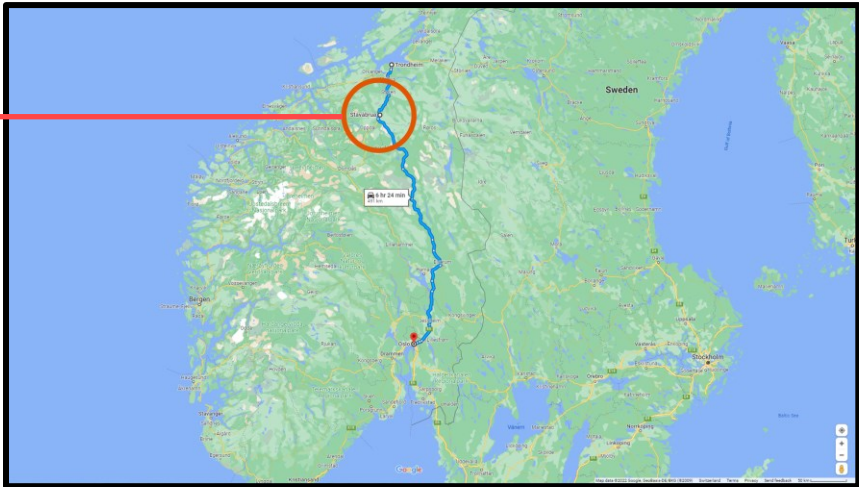
„Dieses Projekt wurde abgeschlossen und die Ersatzbrücke am 23. März eröffnet.“

# Norwegen





Ohne die Stavabrücke müsste der Verkehr über See oder einen bedeutenden Umweg (ca. 6h) geleitet werden – Nordnorwegen wäre „abgekoppelt“



# Warum jetzt eine neue Brücke?



# Inspektion



# Normalbetrieb







# Stau



Laborbedingungen

+ Jährliche Inspektion

+ Erweiterte Inspektion alle fünf Jahre

= **Probleme** bemerkt der Betreiber erst,  
wenn es **zu spät** ist

# Mehr und besser messen



<https://www.tu.no/artikler/gamle-bruer-sliter-med-tunge-vogntog-na-testes-sensorer-som-skal-si-fra-nar-baereevnen-svikter/482921>

# Daten zum Leben erwecken









# Stavaabrua

Max ERI per Day

Max ERI per Hour

**ERI & ECI**

Riss bj.(AVE) øst

Riss bj.(AVE) vest

Displacement fuger

R

ERI - X



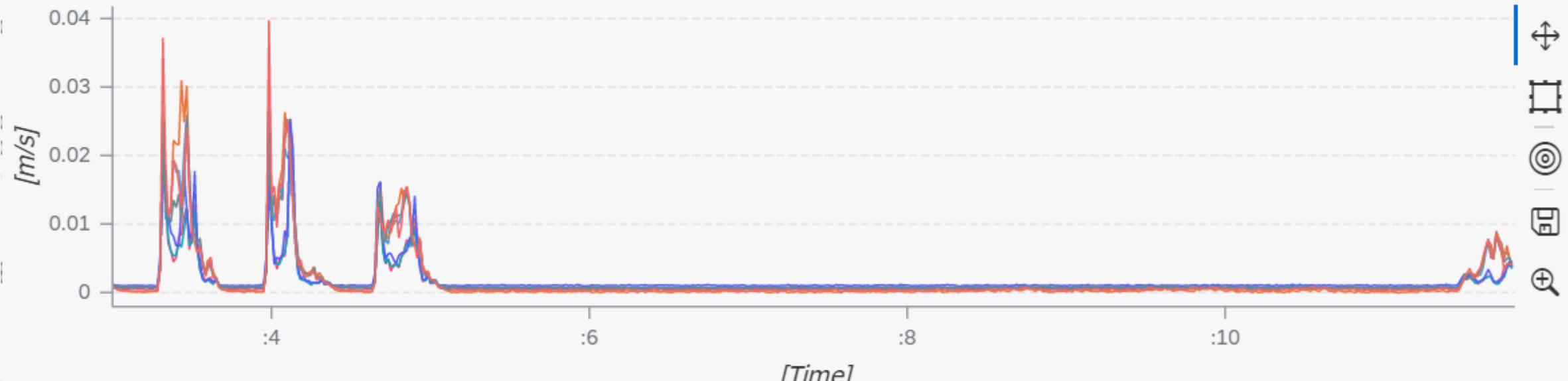
Mar 23, 2022, 12:03:00 PM



Mar 23, 2022, 12:11:49 PM



14

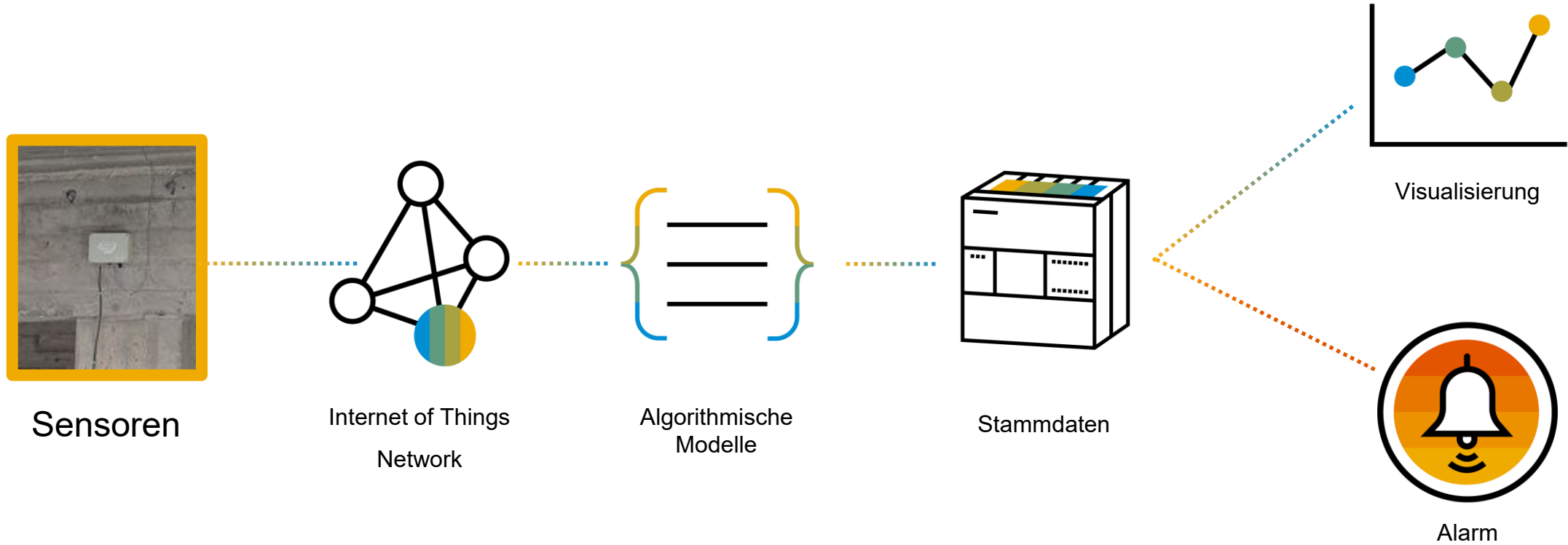




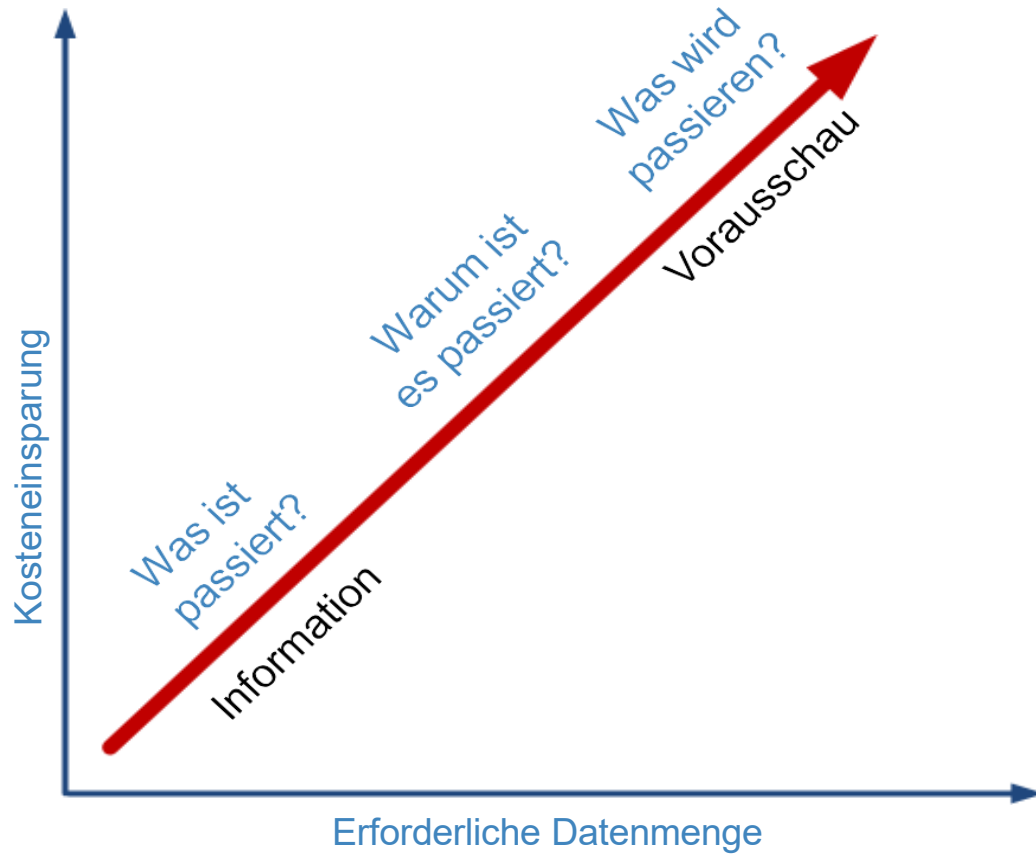
**..deswegen eine neue Brücke.**



# Im Hintergrund:



# Vorausschauende Wartung

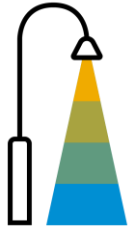


**Schon vorher wissen, was wann kaputtgehen wird.**

**Was müssen wir machen, damit:**

- etwas eintritt
- oder nicht eintritt?

# Technologie im Einsatz..



Buenos Aires: Strassenbeleuchtung



Deutschland: Autobahn



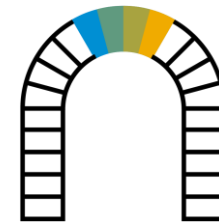
Hamburg: Bauwerksunterhaltung



Buenos Aires: Regenwasserableitung

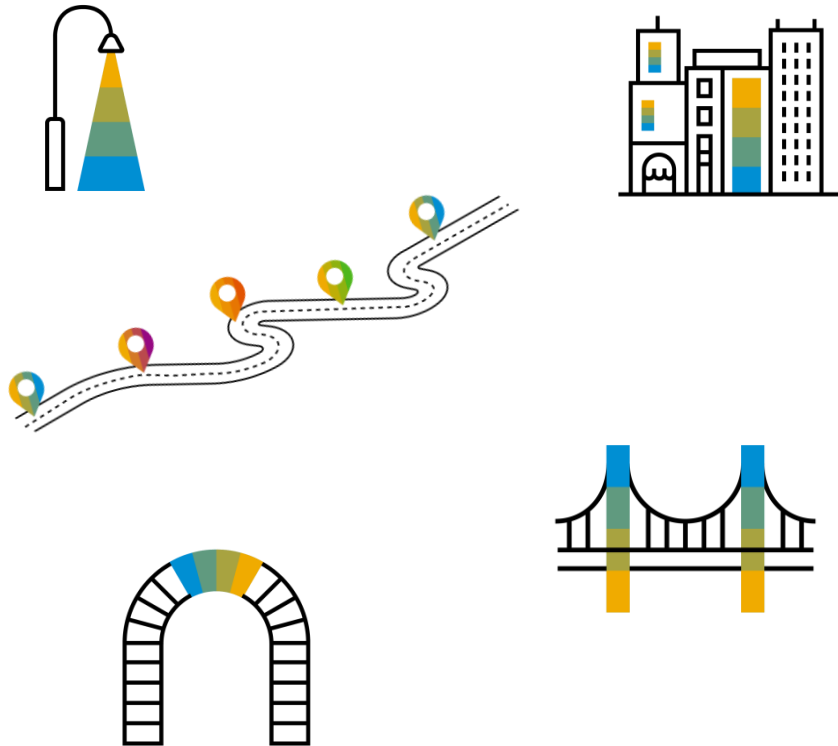


Antibes: Wasserversorgung



Next: Tunnel?

# Über Brücken hinaus..



- ✓ Optimierung von **Einsatzprozessen**
- ✓ Bessere **Priorisierung und Planung** von **Sanierungsvorhaben** und **Investitionen**
- ✓ Finanzielle **Transparenz**: Vergleich der Abschreibungen mit **tatsächlichen Instandhaltungsaufwand**
- ✓ Politische **Berichterstattung** zum Einsatz von **Steuergeldern**

# Let's do it:

- Kennen Sie den **Zustand Ihrer Bauwerke**?
- Haben Sie **ad hoc** die Informationen und Daten, um gut begründete **Entscheidungen** zu treffen?
- Kommen Sie in die **Mode2-Garage** :)

# Let's innovate.

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