

# Estratégias para aumentar a competitividade com IoT e IA VAREJO

RM VALE TI 2021

Tarcísio Peres

3 *cases*

+

1 *test drive*



CH Robinson – Microsoft



MARS – Microsoft



Coway – AWS



CoW – Carrefour



Considerações finais

# CH Robinson - Navisphere



*Supply Chain Management*



Transporte: multi modal



105 mil clientes e 73 mil *carriers*



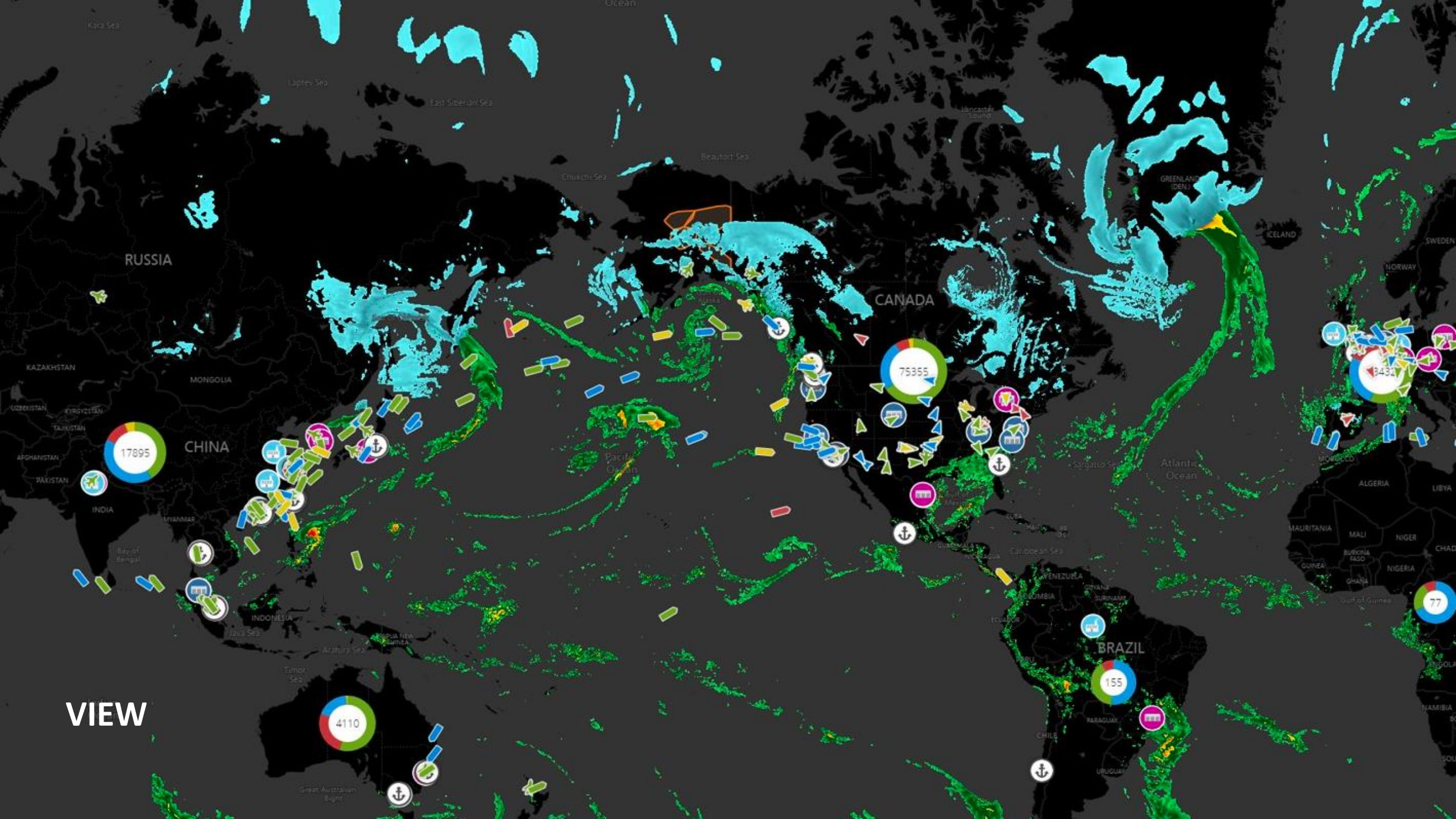
*Global tracking 24h*



*Machine Learning*



Plataforma SaaS



VIEW

INSPECT



Load Save

At Risk x In Transit x [Clear All](#)

Risk Level

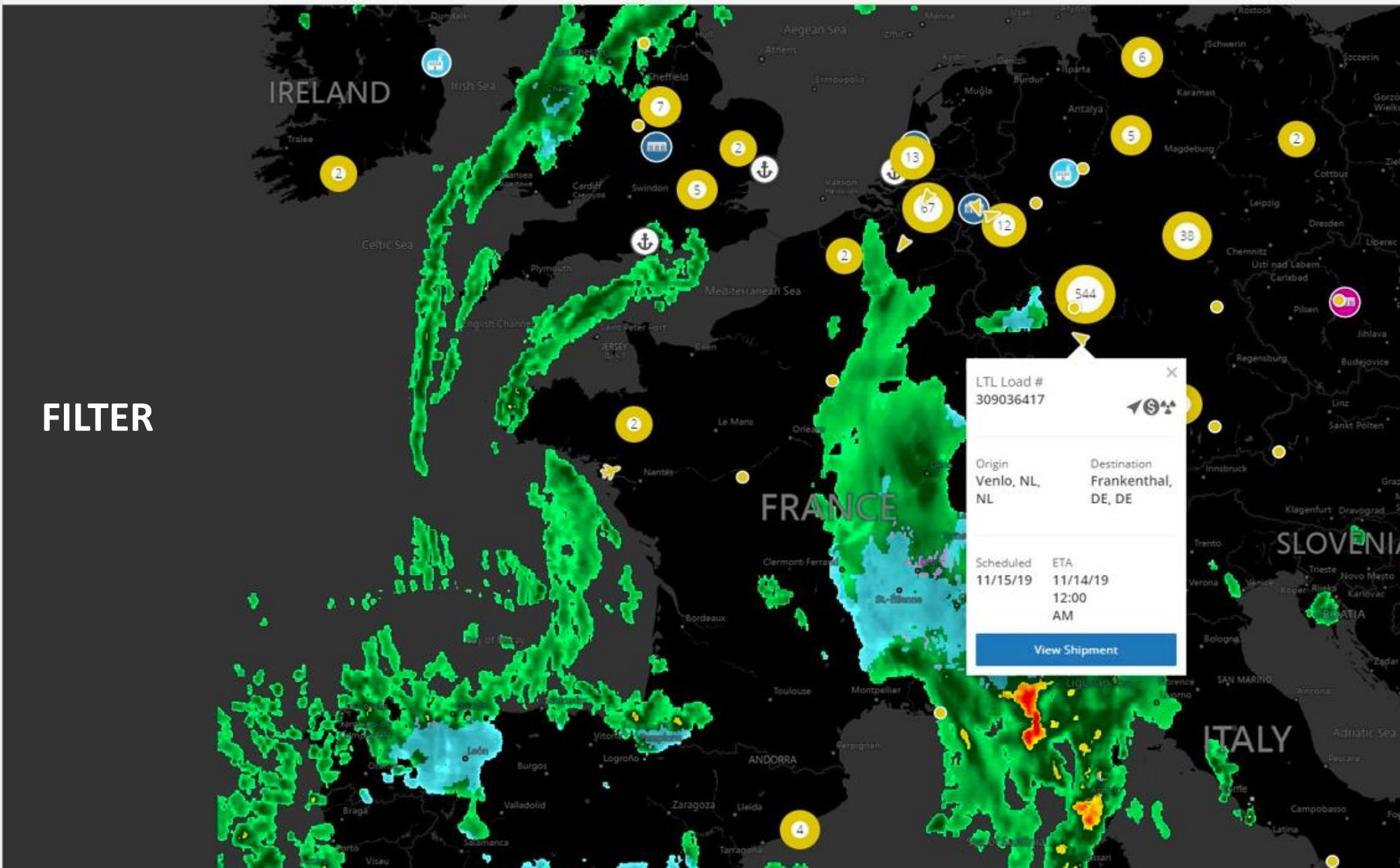
- On Time (27363)
- Early (7732)
- Late (4614)
- At Risk (3882)

Tracking Summary

- In Transit (3882)
- At Origin (451)

- All Facilities
- Date Range
- Disruptions
- Region and Flow
- Mode
- Carrier
- Customer
- Line of Business
- Product
- SKU
- Origin
- Destination
- Channel

**FILTER**



LTL Load #  
309036417

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Origin Venlo, NL, NL	Destination Frankenthal, DE, DE
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Scheduled 11/15/19	ETA 11/14/19 12:00 AM
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View Shipment

# MONITOR

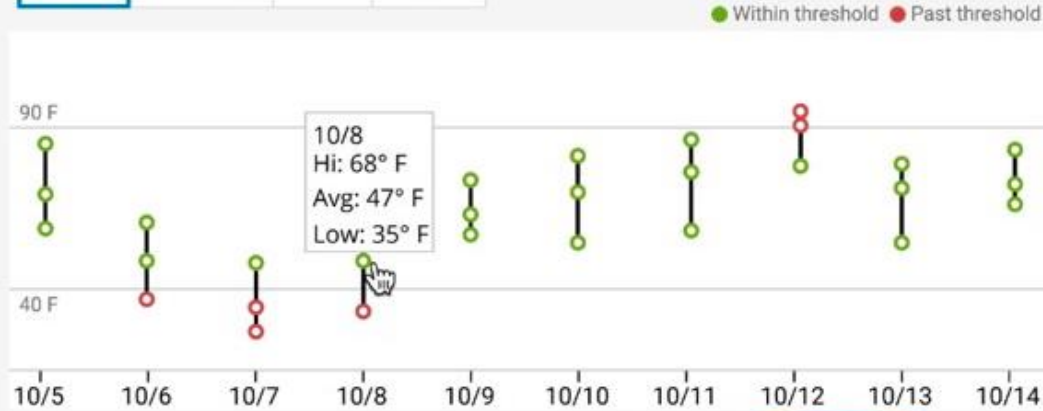
PO/DO  
8500685110,  
8500694096,  
8500673954

Customer PO  
6000654611,  
6000654609,  
6000654609

Tracking Number  
AMS1366600

## IOT THRESHOLD

- Temp**
- Humidity
- Tilt
- Light



## SHOCK & PRESSURE



### SHIPMENT DETAILS

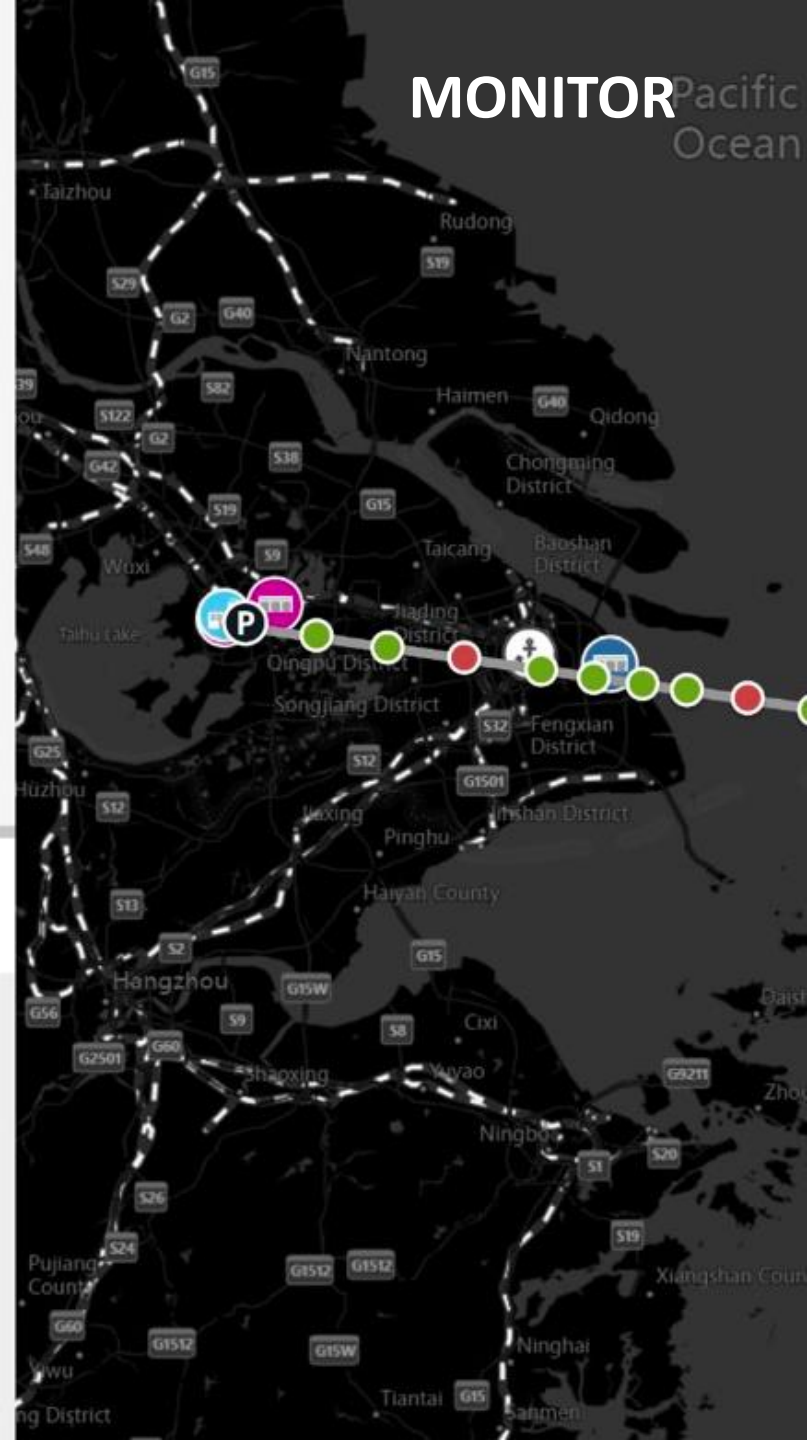
### TRACKING HISTORY

### IOT DETAILS

### ITEM DETAILS

### COMMENTS

Date	Time	Shipment #	Activity	Location
10/15/19	1:00 AM	305778511	Temp Event Occurred. Temperature: 70°F. High Threshold: 90°F. Low Threshold: 40°F	Suzhou, UN CN
10/15/19	1:00 AM	305778511	Humidity Event Occurred. Relative Humidity: 60%. Low Threshold: 10%. High Threshold: 80%	Suzhou, UN CN
10/15/19	1:00 AM	305778511	Tilt Event Occurred. 0°.	Suzhou, UN CN



# ANALYZE

PO/DO  
8500685110,  
8500694096,  
8500673954

Customer PO  
6000654611,  
6000654609,  
6000654609

Tracking Number  
AMS1366600

### IOT THRESHOLD

- Temp
- Humidity
- Tilt
- Light**

### SHOCK & PRESSURE



### SHIPMENT DETAILS

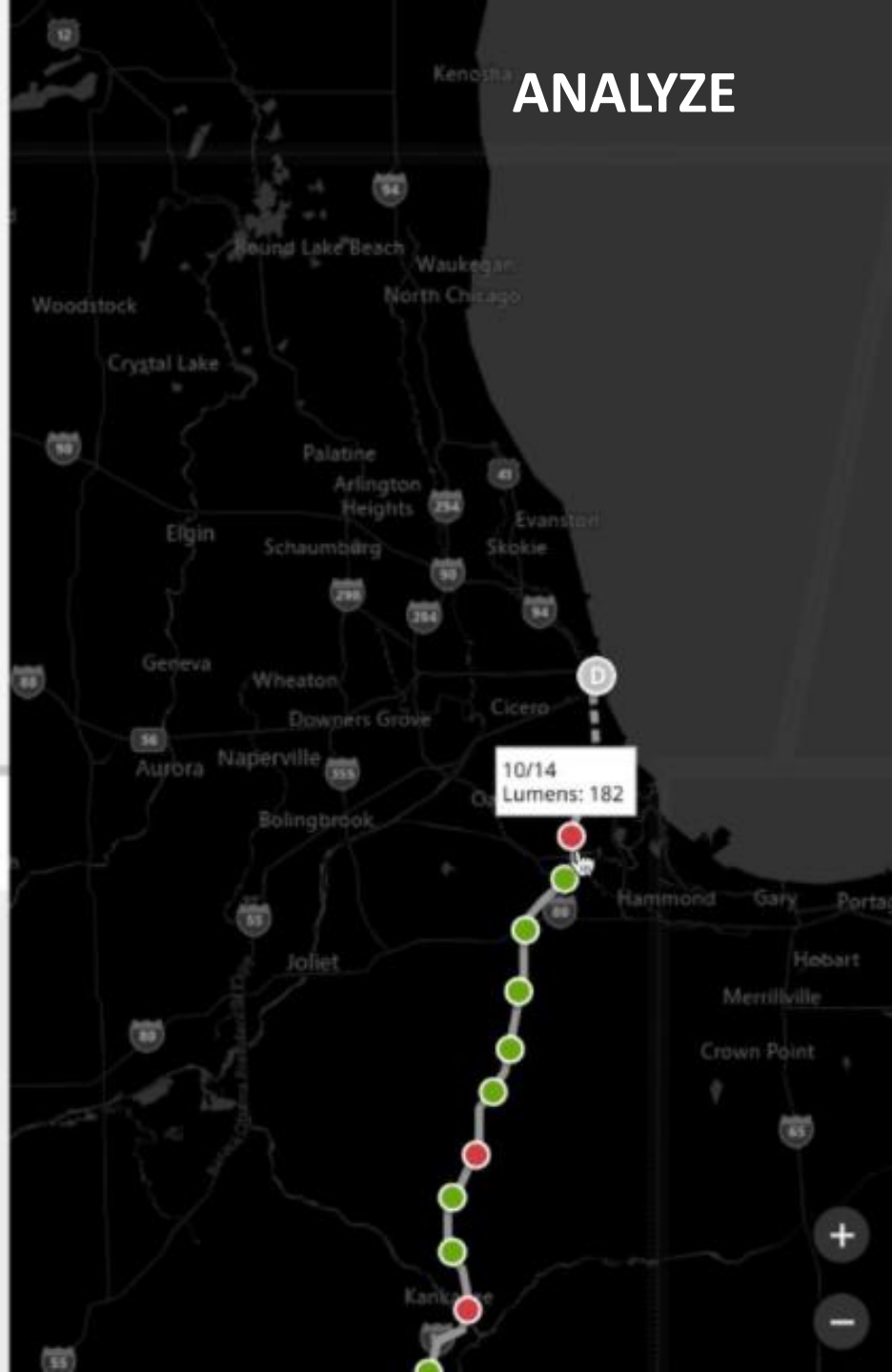
### TRACKING HISTORY

### IOT DETAILS

### ITEM DETAILS

### COMMENTS

Date	Time	Shipment #	Activity	Location
10/15/19	1:00 AM	305778511	Temp Event Occurred. Temperature: 70°F. High Threshold: 90°F. Low Threshold: 40°F	Chicago, IL US
10/15/19	1:00 AM	305778511	Humidity Event Occurred. Relative Humidity: 60%. Low Threshold: 10%. High Threshold: 80%	Chicago, IL US
10/15/19	1:00 AM	305778511	Tilt Event Occurred. 0°.	Chicago, IL US
10/15/19	1:00 AM	305778511	<b>Light Event Occurred. 182 Lumens.</b>	Chicago, IL US







ORDER # 7087934

Flag

PO/DO  
8500685110,  
8500694096,  
8500673954

Customer PO  
6000654611,  
6000654609,  
6000654609

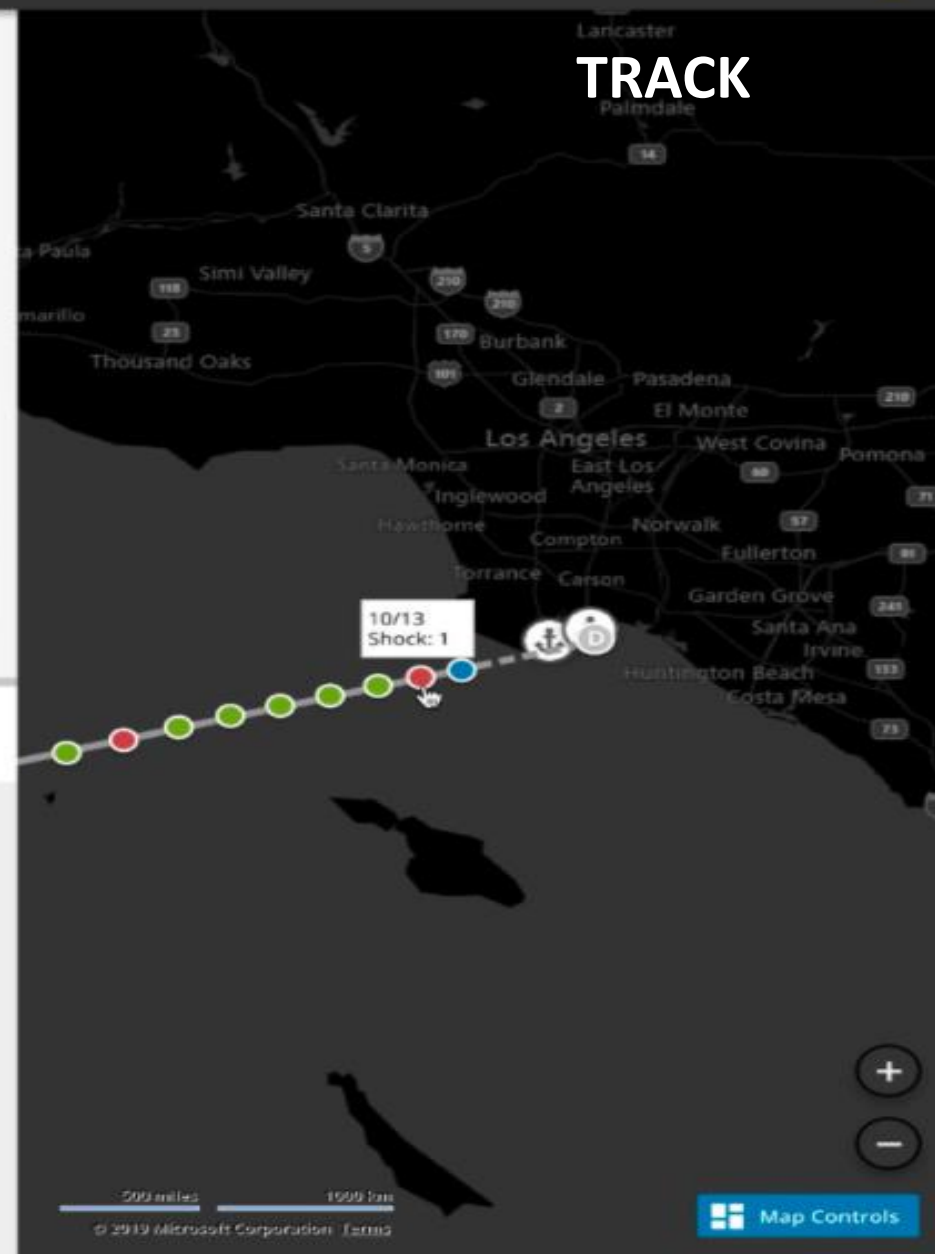
Tracking Number  
AMS1366600

IOT THRESHOLD

Temp Humidity Tilt Light



SHOCK & PRESSURE



SHIPMENT DETAILS

TRACKING HISTORY

IOT DETAILS

ITEM DETAILS

COMMENTS

Date	Time	Shipment #	Activity	Location
10/15/19	1:00 AM	305778511	Temp Event Occurred. Temperature: 70°F. High Threshold: 90°F. Low Threshold: 40°F	Los Angeles, CA US
10/15/19	1:00 AM	305778511	Humidity Event Occurred. Relative Humidity: 60%. Low Threshold: 10%. High Threshold: 80%	Los Angeles, CA US
10/15/19	1:00 AM	305778511	Tilt Event Occurred. 0°	Los Angeles, CA US
10/15/19	1:00 AM	305778511	Light Event Occurred. 30 Lumens	Los Angeles, CA US
10/15/19	1:00 AM	305778511	Shock Event Occurred. 1 Occurrences	Los Angeles, CA US



# MARS – Halloween



*Display Strategy (7 mil)*



*Bluetooth Beacon Sensors*



*Crowdsourced location data (50MM)*



Posicionamento ideal



Tempo de implementação e permanência

BE THE  
BEST HOUSE  
ON THE BLOCK



### Asset Network Execution

**MARS WRIGLEY**  
Confectionery



Filter by Asset Name

Halloween National Bridge



At Suppliers

**0**

0.0%



At Facility

**602**

14.7%



In Transit

**152**

3.7%



In Market

**2,527**

61.6% Executed



Out of Market

**824**

20.1%

Inventory

20

To Be Deployed

0

Active

3,281

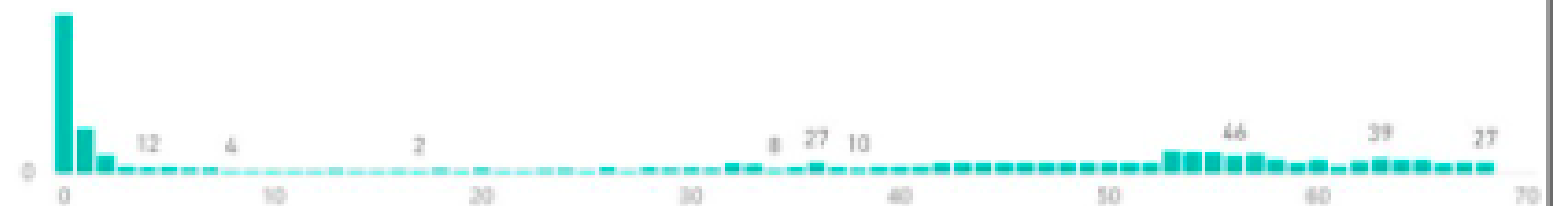
Total

4,105

Expired

61

Beacon Count by Days w/No Activity



# Coway – IoCare



*Life care solution*



Purificadores de água e purificadores de ar



*Smart home appliances*



Inteligência Artificial e IoT



Reconhecimento de voz - Alexa



Coway IoCare is a customized care solution which employs IoT technology to monitor, analyze and diagnose your daily life.

### Main Features



#### Control

Whenever or wherever  
You can remote-control the product.  
Also, based on big data analysis,  
intelligent care is provided.



#### Report

In/outdoor air quality  
and water use are monitored in real time,  
and big data analysis is provided  
in the monthly report.



#### Smart Notice

Notice for optimized product  
management  
and care solution  
for healthy habits.



#### Product Diagnosis

The product is monitored in real time,  
and trouble-shooting  
is provided quickly.

#### Coway IoCare Members

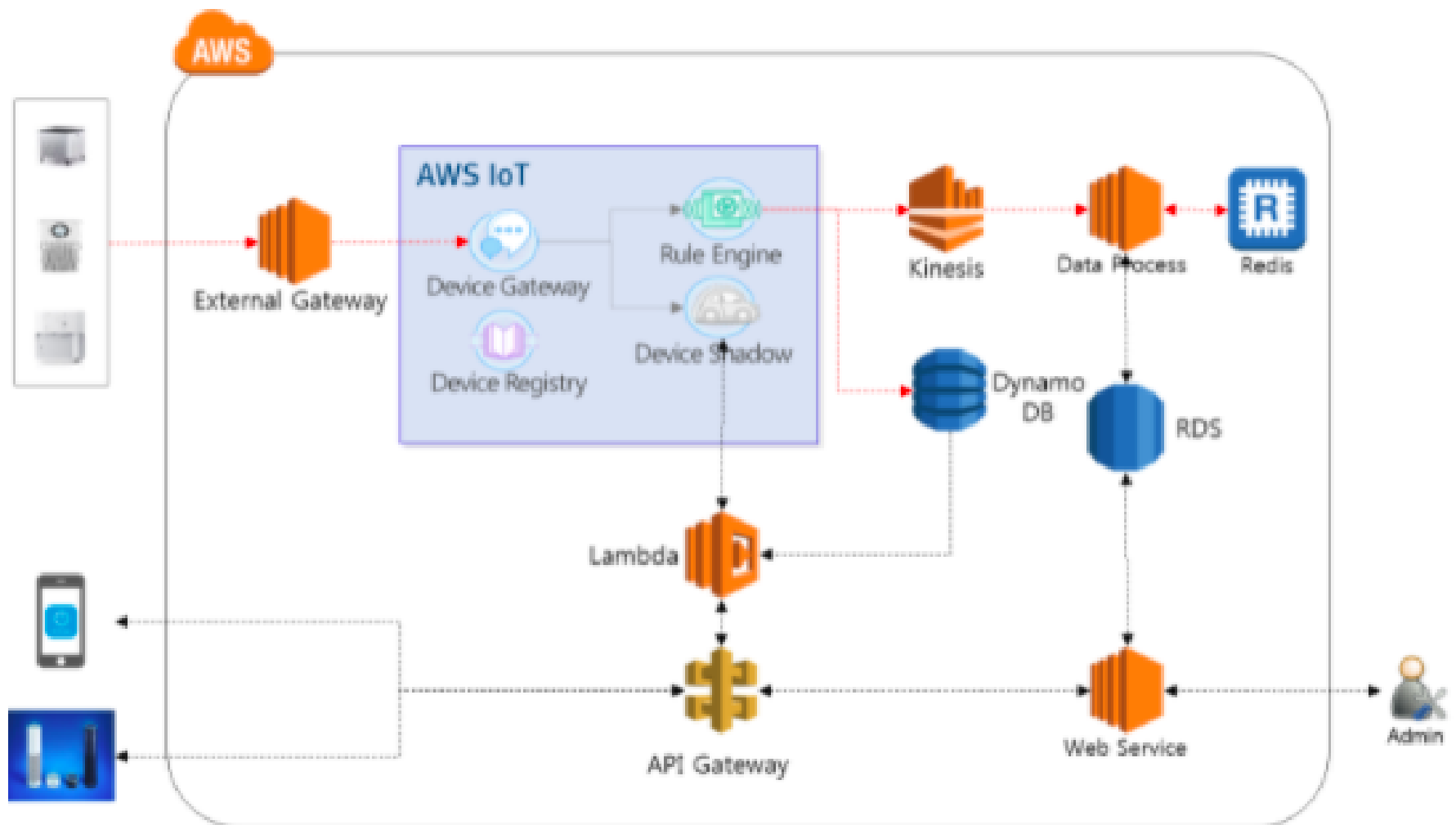
With the **Coway IoCare** account, enjoy various **IoCare services**.

Log In

Register



Copyright Coway Co., Ltd. All Rights reserved.



# Carrefour – CoW



2 lojas autônomas em SP (Express)



Acesso à loja por QR code (Scan & Go)



*Scanner* dos preços e precificação dinâmica



*Checkout* pelo app



Passe de saída

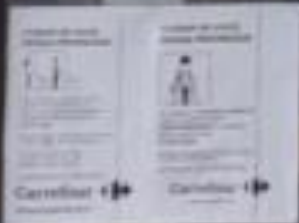


scan & go



**HORÁRIO DE  
FUNCIONAMENTO**

SEGUNDA À SÁBADO  
7H ÀS 22H



Carrinhos →

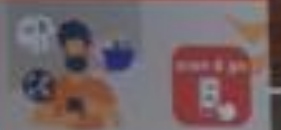
Carrinhos →

**BEM  
VINDO**

**NO PRIMEIRO  
CARREFOUR  
EXPRESS  
SCAN & GO**

PROTEJA-SE AQUI  
COM A ATITUDE CONTRA  
COM A SAÚDE DE TODOS

Podem usar  
agora mesmo!



PARA ATIVAR A LOJA E FAZER SEU  
CHECK-OUT ESCANE O QR CODE AQUI

1. Baixe o app  
2. Crie uma conta  
3. Adicione o cartão de crédito  
4. Escolha o carrinho  
5. Escolha os produtos  
6. Pague no app  
7. Pegue os produtos no carrinho e vá ao carrinho



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5

7

1

2

3

4

6



PASSE O  
QR CODE  
NO LETTOR

PASSE O QR CODE  
NO LETTOR ABAIXO

3 *cases*

+

1 *test drive*



Considerações finais



CH Robinson – Entrega



MARS – Ponto de Venda



Coway – Pós Venda



Carrefour – *User Experience*

3 *cases*

+

1 *test drive*



Considerações finais



CH Robinson – Aplicação robusta



MARS – Aplicação pontual



Coway – *Early Adopter*



Carrefour – Desafios de escala



*Vós sois o sal  
da terra*

Antônio Viera

- Ou é porque o sal não salga
- Ou porque a terra se não deixa salgar



Estratégias para aumentar a competitividade  
com IoT e IA

Obrigado!