



52nd ASECAP DAYS

Challenges of Future
Mobility | The Role of Road
Infrastructure



Organized by



Hosted by



26 - 28 May 2025 | Madrid

www.asecapdays.com

Waze- To- BIO

an IA tool to help Brisa Group users to benefit
from Waze data

André Ferreira Ramos



The largest concession manager in Portugal

since 1972

Operation and management
of 1,525 km of road network



9.5 Mkm

Road assistance
patrolling



3,153

Accidents



64

Victims
seriously injured



130,538

Incidents



1,368

Victims
slightly injured



15

Fatalities

Figures
2024



Road safety is core to
Bristo Group's
corporate purpose and values

Brisa Road to Safety...



To transform the quality of life of communities, connecting people through simple, **safe** and sustainable mobility

Brisa is aligned with EU road safety target:

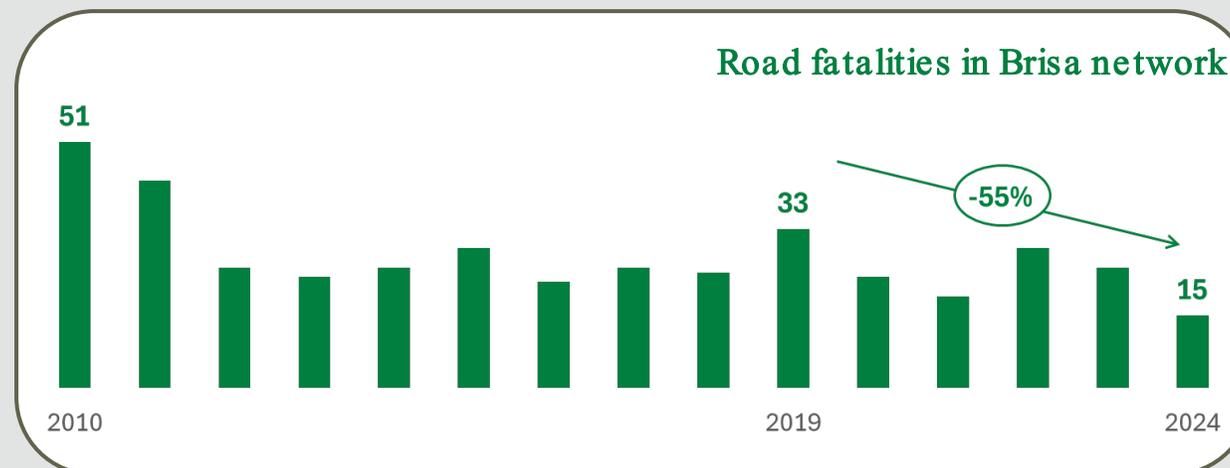
 **50%**
2030 vs. 2019



deaths



serious injuries



Brisa Road to Safety...using Innovation!



- 2023-2024 edition with 87 teams and 144 Brisa employees
- Ideas with a big range of scopes

Decarbonization

Road works

Road safety

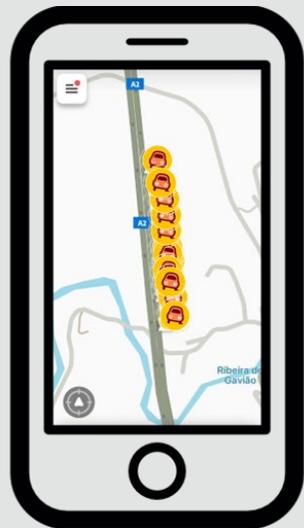
Internal processes

Client support

Waze-to-BIO, a IA tool to (really) use Waze data



Brisa and Waze partners since 2015



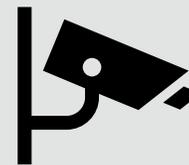
...but traffic occurrences communicated by Waze were not yet automatically integrated on operation...



Identify real accidents/incidents



Share them with the Brisa Traffic Operations Center (TOC)



Check closest CCTV (when available)



Dispatch assistance (when needed)

Crossing Waze data with Brisa occurrences...

Waze data



2019-2024

historical occurrences



done

2024 real-time occurrences

(+ jams / irregularities)



ongoing

Brisa data



network polygon
(with buffer)



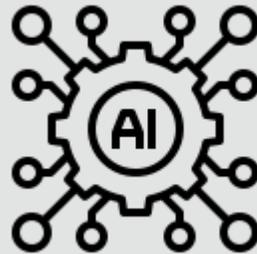
Accident and incident
database

Crossing Waze data with Brisa occurrences...



Answering the question line by line: is this occurrence **relevant** for my operation?

Waze-to-BIO step by step



Set of occurrences arrive (every minute)

Filter of occurrences within the Brisa network

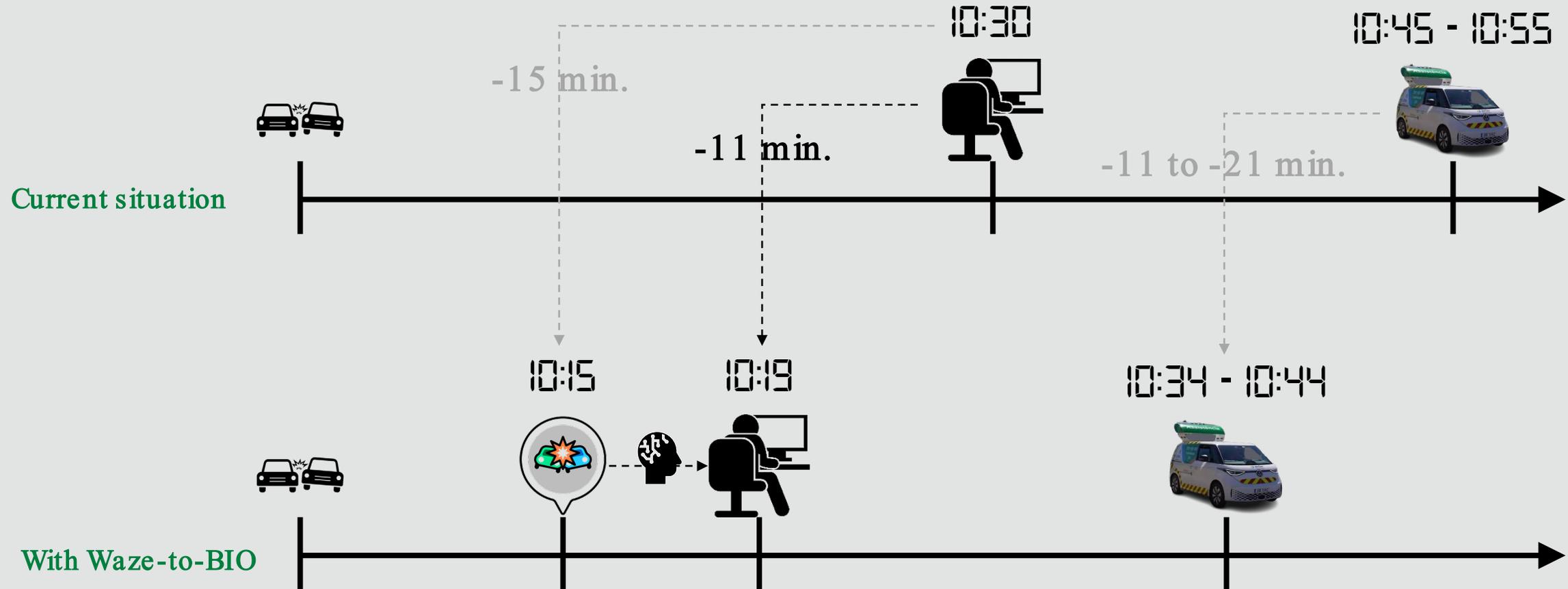
Evaluate each occurrence and estimate relevance

Cross with other active Waze occurrences to create or update relevance

Check with Brisa active occurrences

Warn Traffic Operations Center (TOC)

Waze-to-BIO step by step



Reducing response time by getting the information **earlier** and with **higher accuracy!**

What have we learned (so far)?



- **Real-time** (complete) **data** from Waze is much more useful

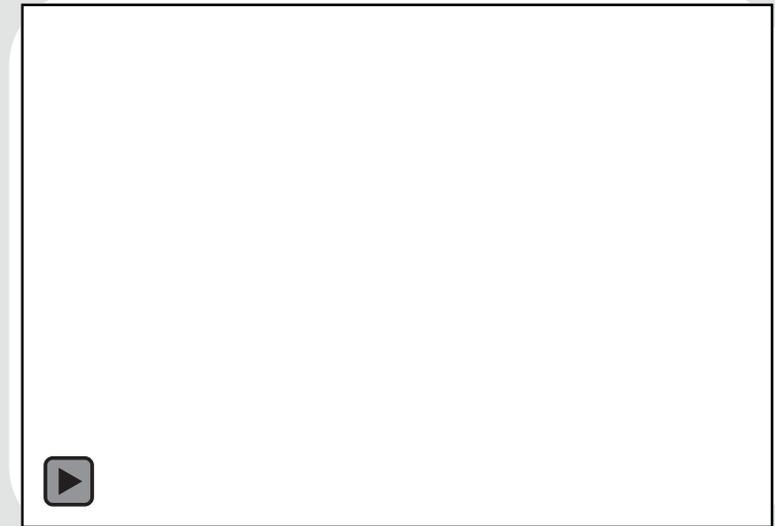


- Despite the Waze information being very **valuable for the road users**, part of it is not valuable for the concessionaire

What have we learned (so far)?



- Not surprisingly, motorways with higher traffic volumes reach more **accurate** results



- A model filtering Waze occurrences must be very **flexible** and **context dependent** (hour, motorway, season, special events,...)

Reducing response time and using available sources are critical steps towards **Vision Zero!**

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Thank You

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