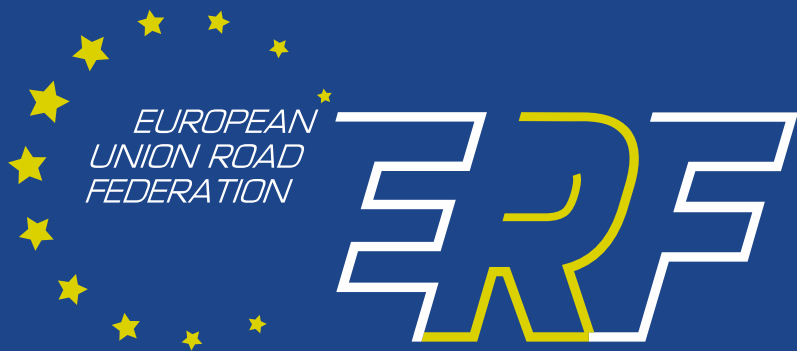




Digital supervision at road work zones



➤ Who we are

- Non for profit organisation
- Founded in Brussels in 1998
- More than 60 members
 - Industry
 - National road associations
 - Research center and notified bodies
 - Professional organisation
- Representing the road infrastructure sector in Europe and outside



➤ 4 major programmes

■ Road Safety:

- Road Markings
- Road Signs
- Road Restraint Systems (barriers)
- **Safety on Work Zones**

■ Sustainability

■ Road Asset Management and Financing

■ Smart Mobility



Figure 4. Flagger #2.



Digital work zone safety working group 2025.

Purpose

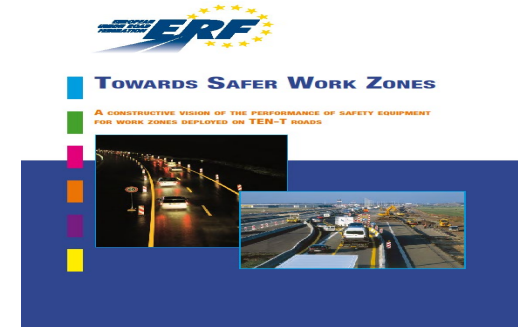
To include a digital work zone best practise chapter to the paper TSWZ-2015-02-V004 [Towards Safer Work Zones](#).

Evaluate current working practise across industry stakeholders and how we transition towards a digital era.

Objective:

To evaluate the best digital Workzone safety
Working systems / procedures

Insert link



Executive summary

- Autonomous transportation infrastructure is fast evolving
- Headline focus is given to the mode of transport and the infrastructure, and the and stakeholder experience.
- Our aim is to ensure the people doing the construction work in these dangerous environment have a forum that serves their interests.

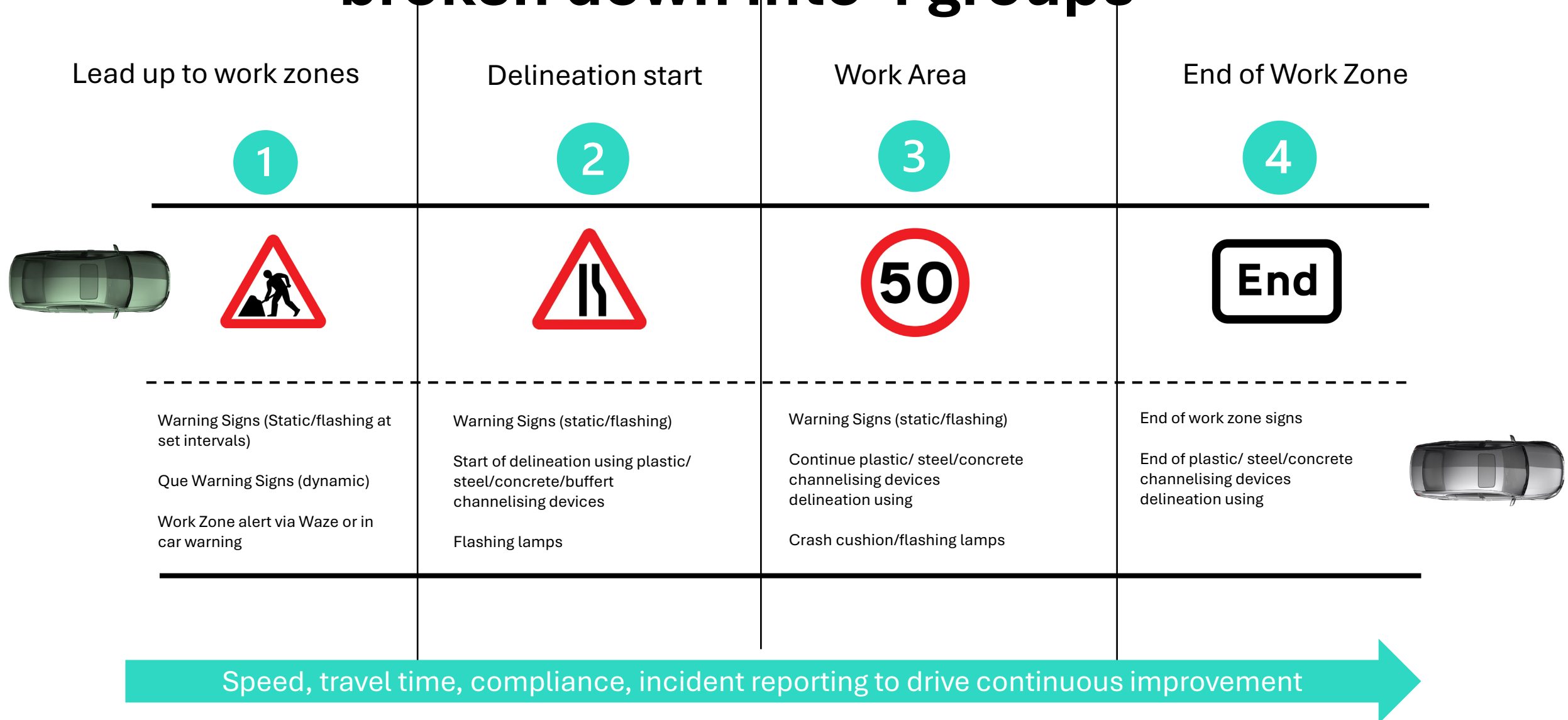
WHO estimates that 1.19 million people lost their lives in or at Construction work zones [2021] In an article published by the Lancet in 2019 road accidents cost the global economy USD 1.18 trillion\$

- **Work Zone safety around the world has similar issues, it is the way that Countries and Governments choose to manage them that changes**
 - Safety Hazard
 - Incursions
 - Speed control
 - Carbon emissions
 - Public inconvenience
 - Confusion

Strategy

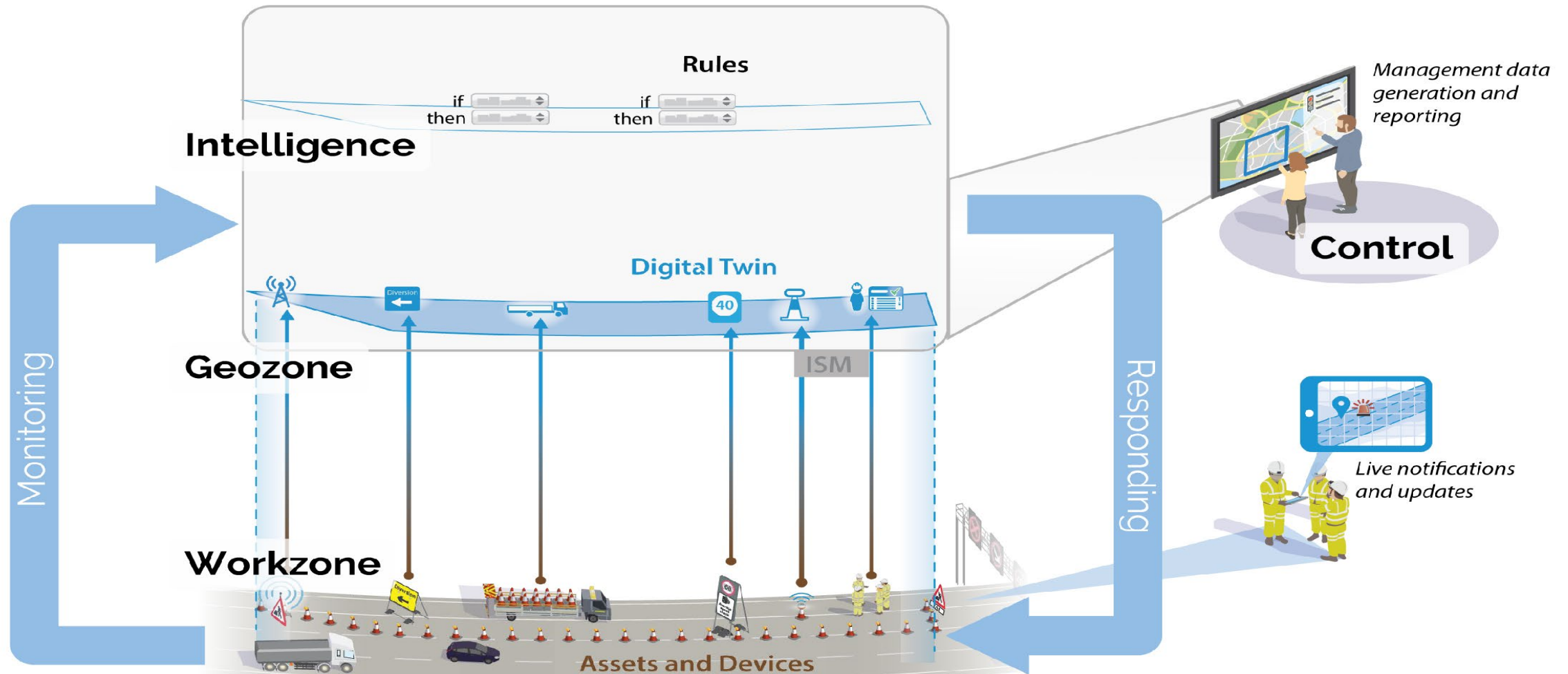
- Using the published work zone safety paper as the base line we will find digital traffic management policy for worker and trends, that the systems are heading towards
 - Engage with local Governments
 - Large organisations ASECAP, CEDR, ATSSA, Australia Roads and IRF
 - Run a series of global webinars
 - Working with industry experts and stakeholders evaluate our findings to assemble a data base that will allow us to produce best practice recommendtaions

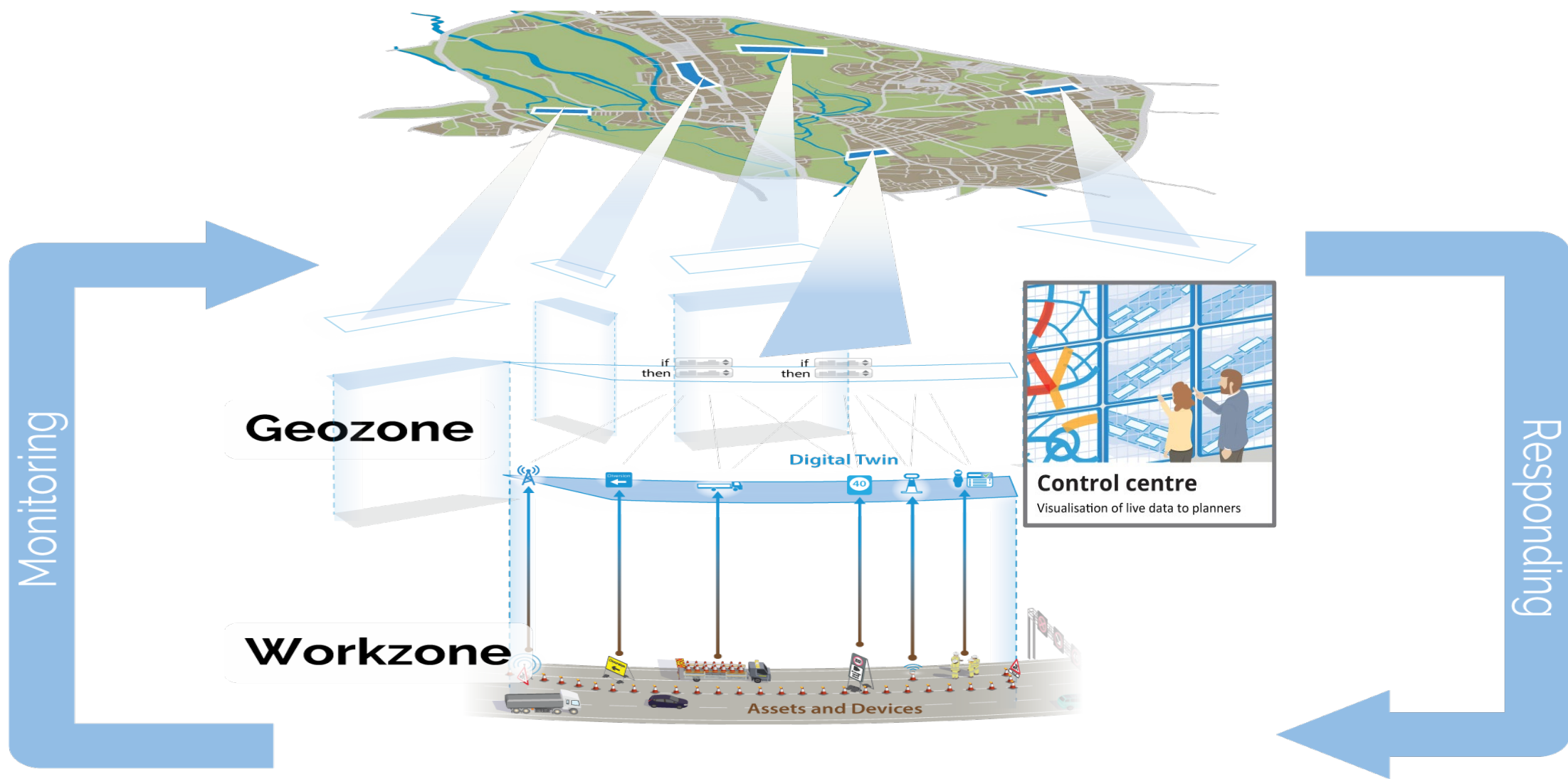
Work Zone Key Elements – broken down into 4 groups



Speed, travel time, compliance, incident reporting to drive continuous improvement

Digital twin each Workzone safety item tagged



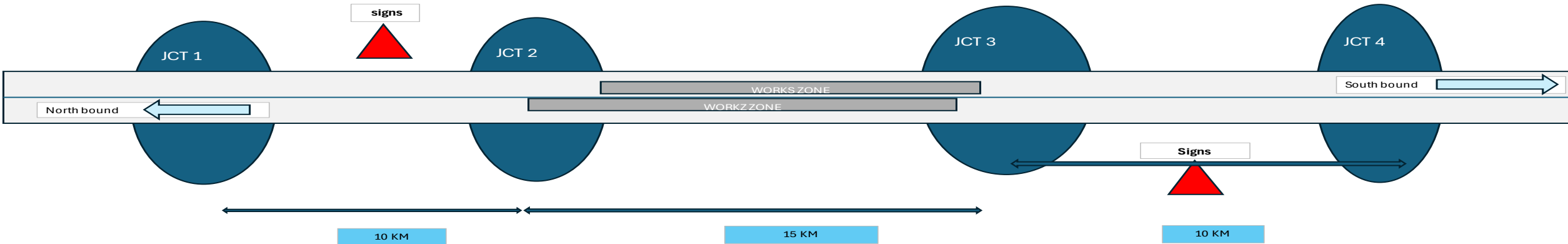


Common objectives across the world

- Stakeholder Safety
- Carbon reduction
- Collection of Digital Data
- Improve stakeholder travel experience
- Value for Money
- Standardisation

It is how we manage the problem that changes not the cause.

TYPICAL 2 HOURLY MAINTENANCE CYCLE ON HIGHWAYS 70 KM ROUND TRIP 12 TIMES PER DAY = 840 KM TRUCK 3T = 76 LTRS FUEL 1.74 EURO = **132.24 EURO**
CARBON EMISSION FOR EVERY LITRE OF DIESEL USED 2.6391 CARBON IS PRODUCED 76 LITRES X 2.6391 = **200.57 KG PER DAY**
OF COURSE THERE ARE MAJOR COST SAVINGS TO BE CONSIDERED IN TERMS OF PEOPLE AND PLANT, BUT THIS IS A LITTLE MORE SUBJECTIVE SO ARBITRARY **600 EURO PD**



	Daily outcome		annual outcome
Number of crews per day	1		240
Euro Fuel cost	132.24	132.24	31737.6
KG Carbon emission	200.57	200.57	48136.8
Euro Labour and plant	600	600	144000

	Daily outcome		annual outcome
Number of crews per day	30		240
Euro Fuel cost	15.68	470.4	112896
KG Carbon emission	29.55792	886.7376	212817
Euro Labour and plant	200	6000	1440000

1. Fuel cost per ltr 1.4
2. Distance KM 56
Vehicle km per ltr 5
Carbon per litre 2.6391

View at a glance the effect Digital supervision can have on your daily cost and the environment

At the same time

1. Improves safety, removing people from exposure
2. Information DATA that will improve how you do business and manage your resources
3. Improve stakeholder experience providing real time travel information

Simple to use
1. Enter the figure you pay for fuel
2. Enter you average distance maintenance patrol
3. Enter the distance your vehicles average per litre of fuel

1. Change the number of crews each day
2. Enter the number of days you work on the network

What we would like from You

- Safety should be a given right to all that work on our infrastructure work zones, a common best practise should be our goal.
 - We are trying to establish a base line of what currently are the best working practise being used out there and how you influencers at this conference see the future, what direction do you believe the transition towards digital supervision will take .
 - On the next slide is a link to our questionnaire , we would very much appreciate it if you could fill it in and help us form a data base which we will share with you.
 - Alternatively, if you would prefer a 1-2-1 teams call to discuss your views we will be very happy to accommodate this

Thank you for listening

Link to questionnaire:

<https://forms.office.com/e/YwnKz0d68X>

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