



Intelligent Road Asset Management Platform

# Smart intervention: Pavement Rehabilitation & maintenance Decision Support Tool

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**OLD ROADS,  
NEW TECHNOLOGIES**  
safe and intelligent road asset management

# OMICRON solution: Pavement Rehabilitation & Maintenance

**Reduces time of interventions and traffic disruptions**

**Ensures Quality Control / Assurance to improve process and decision making**

**Improves environmental friendliness**



**Higher paver speed & lower stops  
= 25% time reduction**

**Automatic measurement on site & on time of KPI = QA/QC improvement & testing time reduction**

**Reusing (RAP), Recycling (Crumb rubber)  
& ↓CO<sub>2</sub> = lower cost**

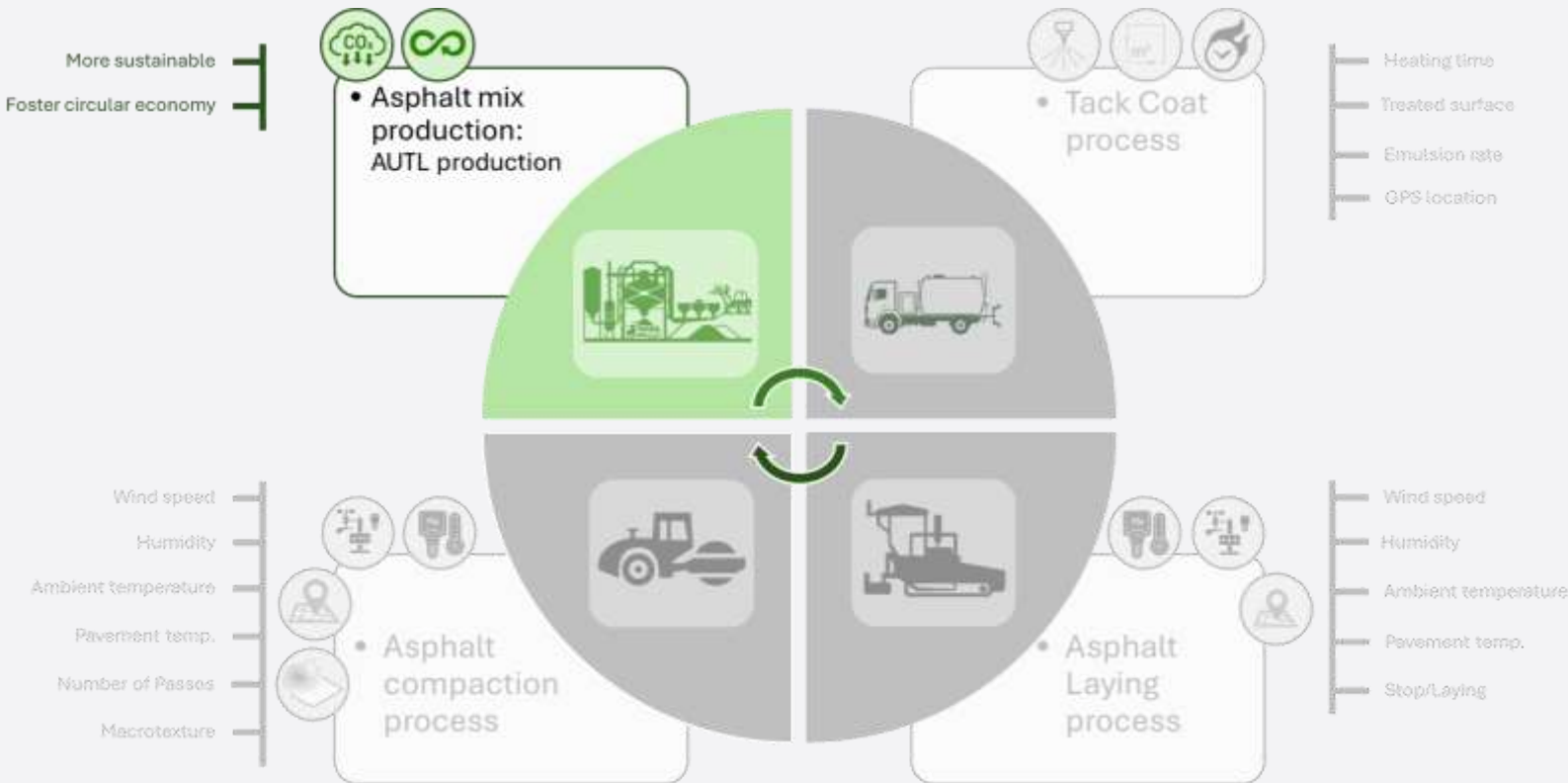
# OMICRON solution: Pavement Rehabilitation & Maintenance

## Combination:

1. Environmentally-friendly Asphalt for Ultra-Thin Layers (AUTLs)
2. Smart Automatic System of Paving Intervention (SASPI)



## Environmentally-friendly Asphalt for Ultra-Thin Layers (AUTLs)

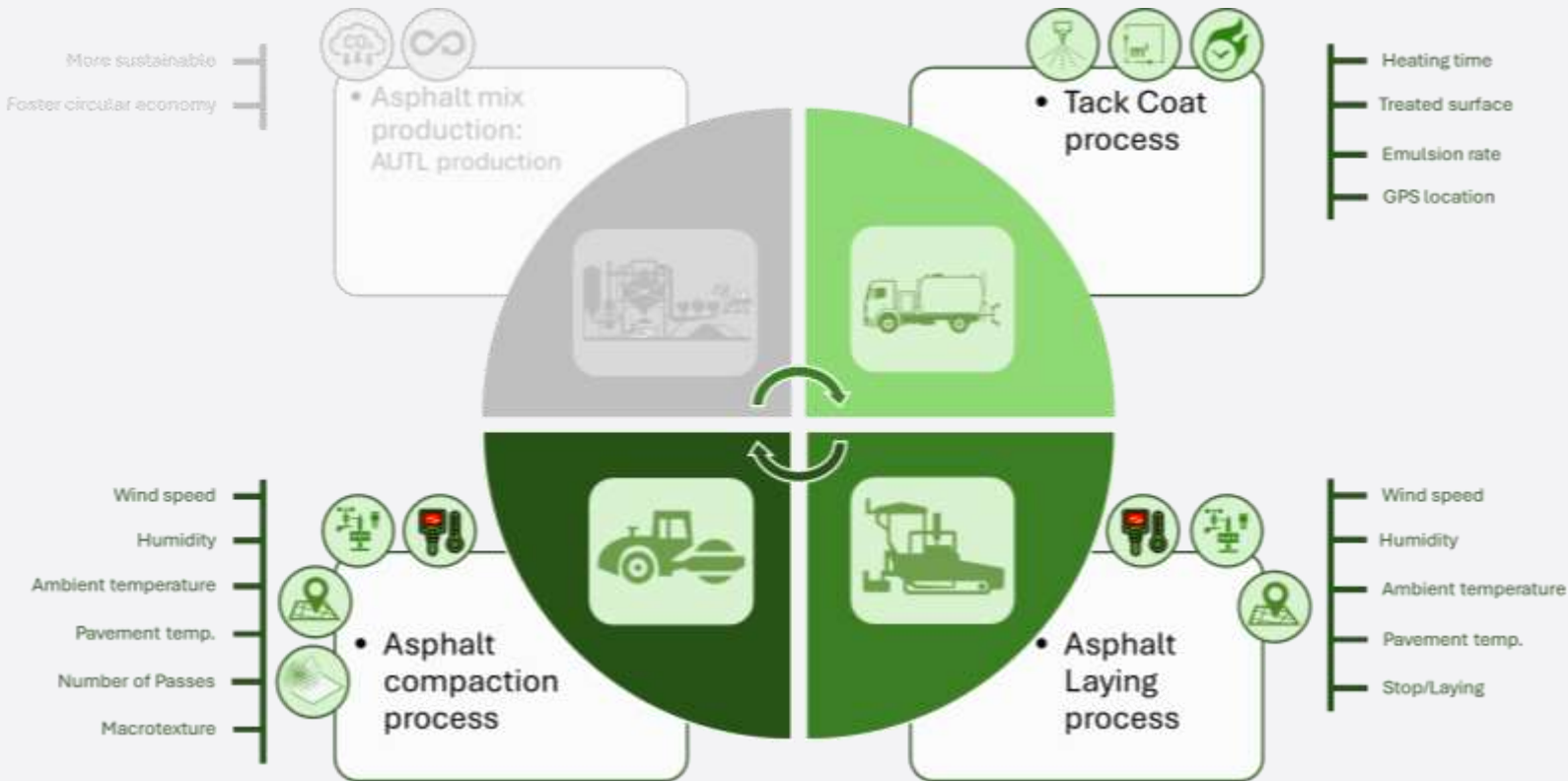


### IMPROVEMENTS:

- CO<sub>2</sub> emissions reduction = 1.45 kg/Tn
- RAP content = 10% → Reduction in virgin aggregates (9.5%) & bitumen (10%)
- Recycling of crumb rubber from ELT = 6.9 kg/Tn → 1 car tyre by Tn



## Smart Automatic System of Paving Intervention (SASPI) (I)

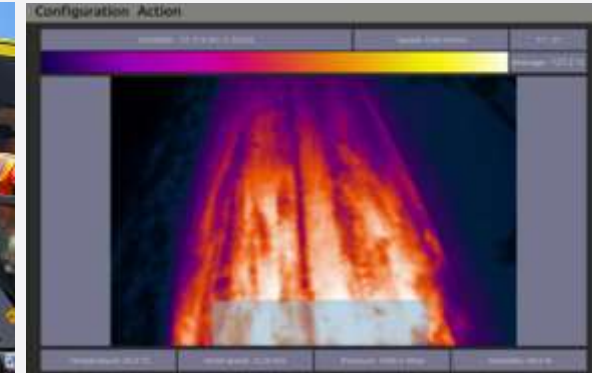
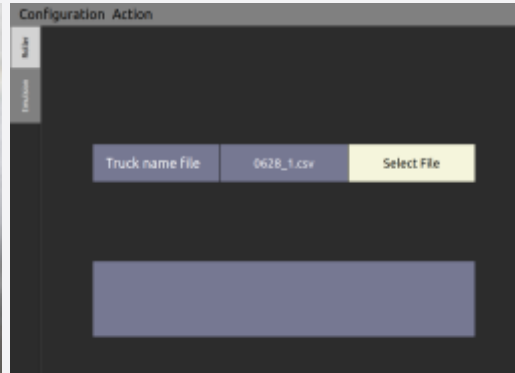


### IMPROVEMENTS:

- More control of the coating layer in the pavement preparation
- Thermal control of the asphalt mix and the speed/status of the paver machine
- Thermal control of the compacted layer, number of roller passes and macrotexture estimation in real time

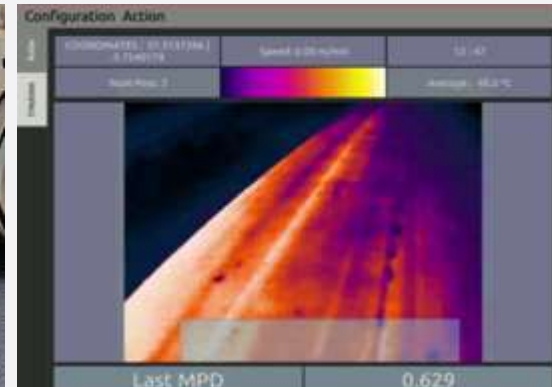


## Smart Automatic System of Paving Intervention (SASPI) (II)



TACK COATING PROCESS

PAVING PROCESS



COMPACTING PROCESS

## Video technical demonstrator 3 (TD3)



Intelligent Road Asset Management Platform

Pavement rehabilitation and maintenance technologies  
Smart Automation Solution of Paving Interventions (SASPI)





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# Thank you!

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