



UNIVERSITY OF  
BIRMINGHAM



International Road Federation  
Fédération Routière Internationale  
Federación Internacional de Carreteras



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**CRISPS**



HIGH VOLUME  
TRANSPORT  
APPLIED RESEARCH



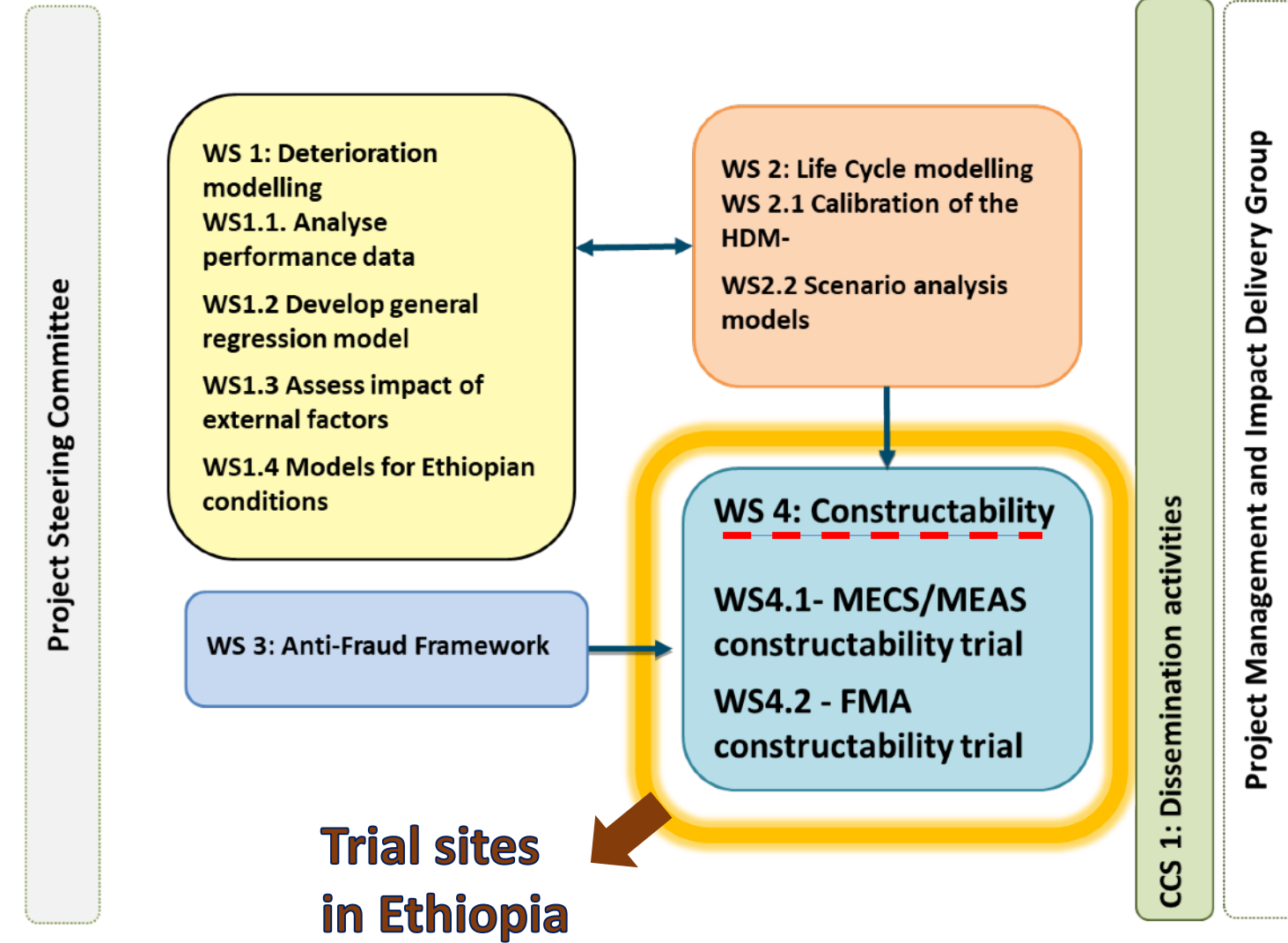
**UKaid**  
from the British people

# Climate Resilient Sustainable Road Pavement Surfacings (*CRISPS*)

## WS 4 - Constructability

Dr Gurmel S Ghataora  
University of Birmingham

# Climate Resilient High Volume Roads



# Aim (WS4)

❖ Prove constructability of technologies

## Technologies

- Modified Epoxy Chip Seals (MECS),
- Modified Epoxy Asphalt Surfaces (MEAS)
- Fibre Mastic Asphalt (FMA)

# Preconstruction details

Construction details

Drainage

Properties of materials (used in construction of existing roads)

Performance of existing surfacing

Climatic conditions – rainfall, temperature

Groundwater variation

Road condition (including modes of failure)

Traffic

# Preconstruction



Monitor >> local rainfall, temperature condition of drainage

- moisture content changes in pavement layers
- temperature changes in pavement layers
- effectiveness of drainage

Develop method statement for construction

Based on experience in New Zealand and Malaysia,  
and local conditions



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# Construction



Monitor ease and effectiveness of application of technologies.



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# Postconstruction

- Monitor** - local rainfall and temperature
- moisture content changes in pavement layers
  - temperature of road surface and various layers
  - effectiveness of drainage

**Road condition**

**Traffic**

# PROGRAMME



Mid January 21 - Develop site selection criteria and identify potential sites

Feb to Nov 21 - identify candidate sites, preconstruction data collection and condition monitoring.

August to Dec 21 - Firm up trial site locations

Dec 21 to Feb 22 - Construction and monitoring



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# Thank you