European Common Evaluation Methodology for Connected Cooperative and Automated Mobility (EU-CEM for CCAM)

Minnesota DOT International Partnership Meeting,
Washington DC, 8 January 2025

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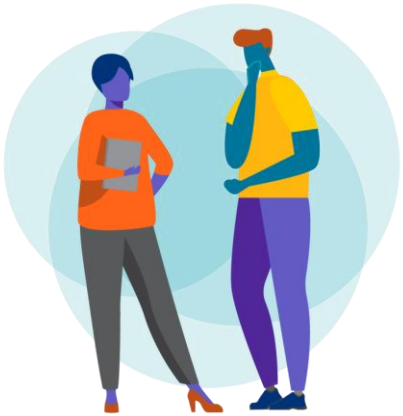
FAME is funded by the European Union HORIZON
Research and Innovation Actions under the grant agreement n. 101069898

Why impact assessment?

- High expectations on CCAM solving transport related challenges
- Important to enhance to build understanding on likely impacts of CCAM along with its development
  - To maximise the benefits and to minimise and mitigate the disbenefits
  - To take different viewpoints: Citizen, business, government, traffic flow, transport system, society



Common evaluation methodology for CCAM

- European Research and Innovation action FAME is developing a common evaluation methodology (EU-CEM) that provides guidance **on how to set up and carry out an evaluation or assessment** of direct and indirect (wider socio-economic) impacts of CCAM directed to different user groups
- Objectives for EU-CEM
  - Provide **common language and basis** for CCAM evaluations
  - Allow all CCAM projects to benefit of methodological **lessons learned and best practices**
  - **High quality evaluation** of CCAM pilots and demonstrations
  - Ensure **transferability of results** of CCAM pilots for future research, development and testing
  - **Better excellence and progress** of research and innovation on CCAM
  - Projects can provide **high quality input for decision and policy making**

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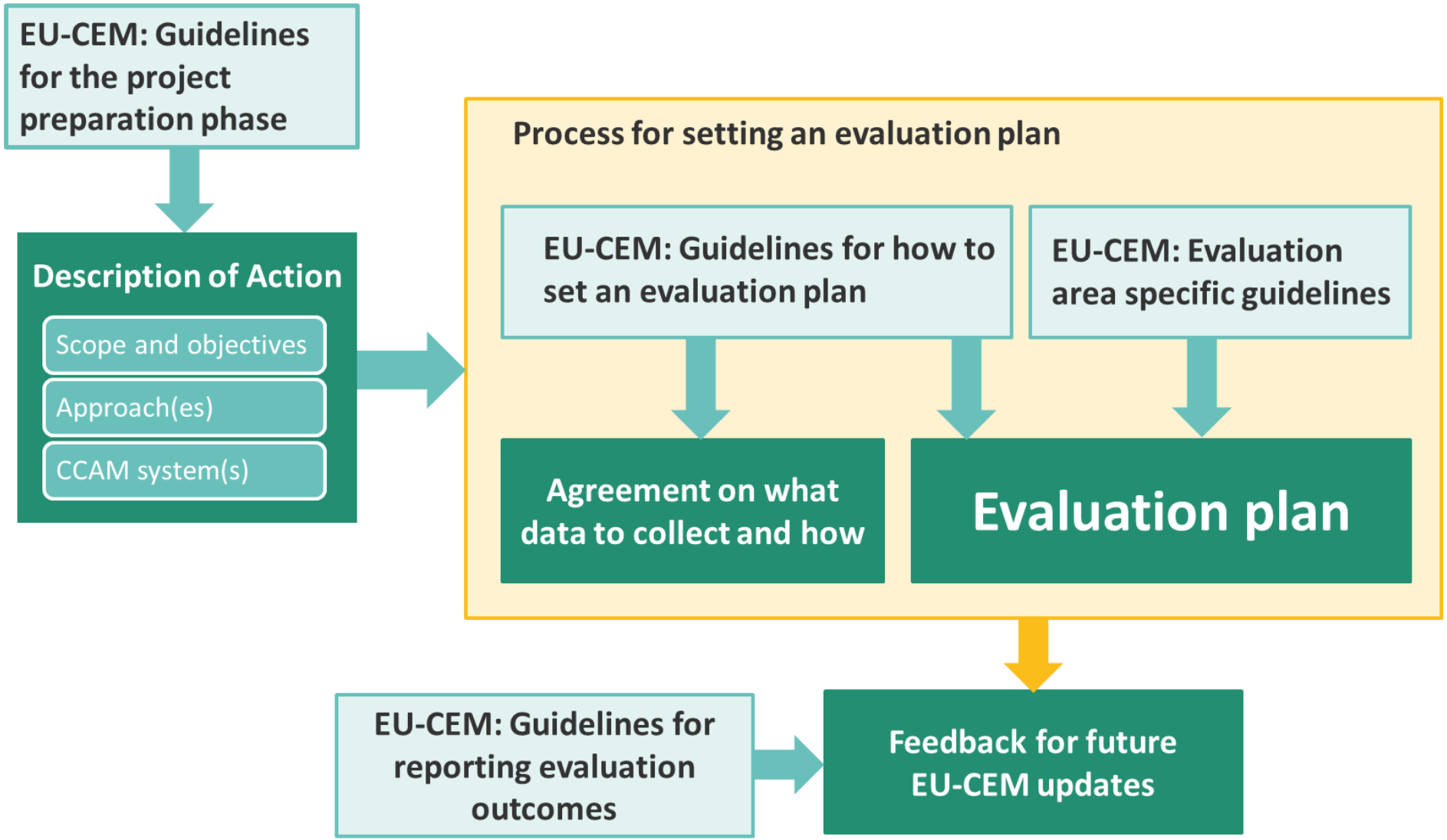
Scope?

For all CCAM activities that include **impact assessment**, addressing

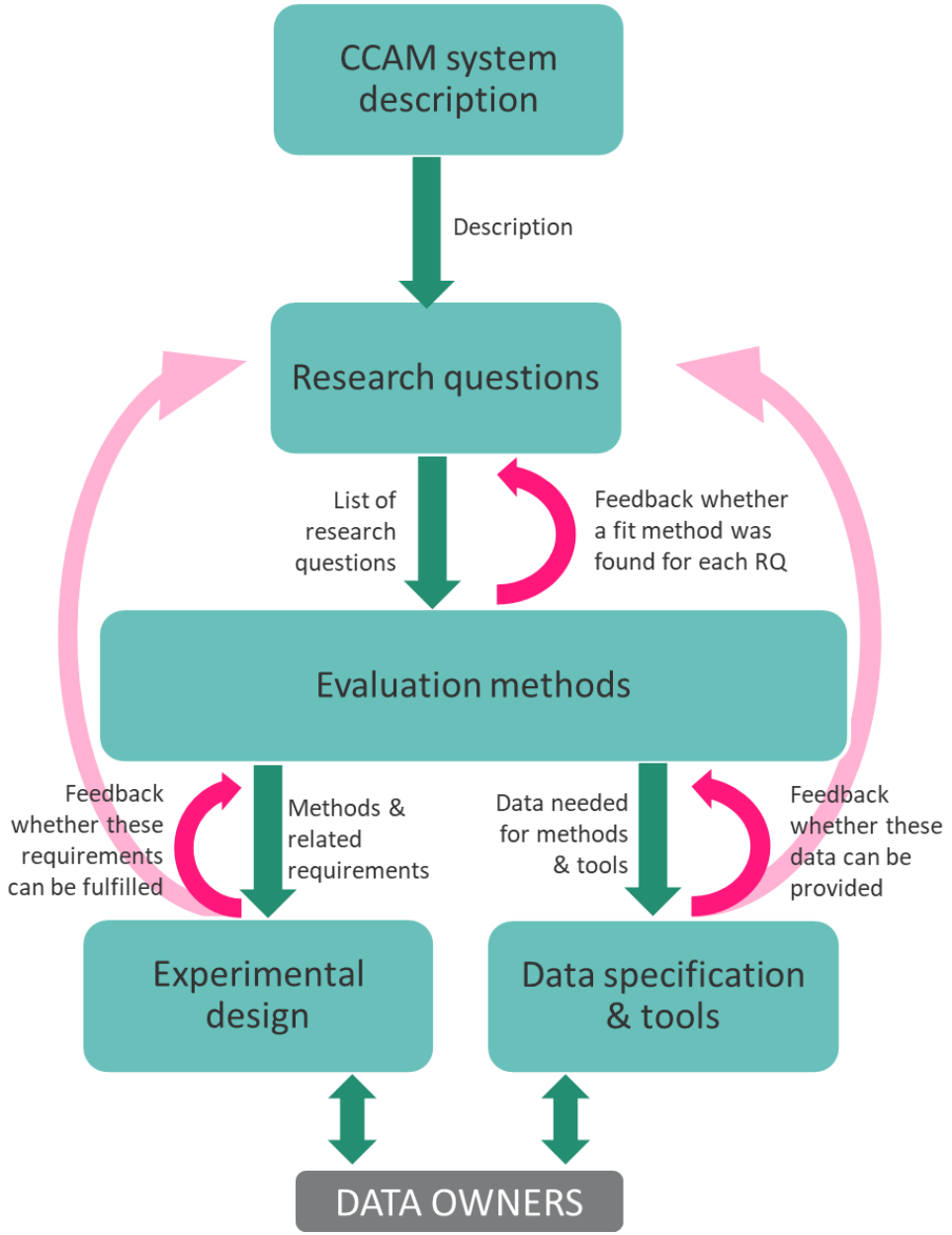
- Automation of road transport of **people and goods**
- **Any vehicle type** (specifically cars, trucks, shuttles, buses)
- **Higher-level driving automation** (SAE level 3 and higher), with and without connectivity
- **Use cases on public roads**, likely with specified operational design domain (ODD), operating in mixed traffic

- Mainly **large-scale joint activities**, but is applicable also for small ones

EU-CEM Handbook

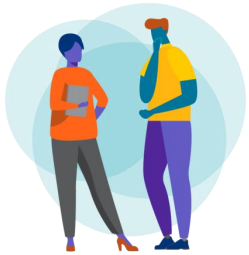


Process for setting the evaluation plan



Evaluation area specific guidelines

- Definition
- Short overview of the related theory or background
- Indicator recommendations
- Impact pathway
- Overview of different approaches and methods
- Pitfalls and best practices related to different methods



Vehicle

- Technical functioning
- Driving behaviour

Human

- User
- People mobility
- Quality of life

Transport system

- Services & operation
- Goods logistics
- Transport activity & fleet composition
- Traffic safety
- Traffic flow efficiency
- Accessibility
- Energy & environment

Society

- Land use
- Liveability
- Economic activity & employment
- Socio-economics
- Equity
- Sustainability

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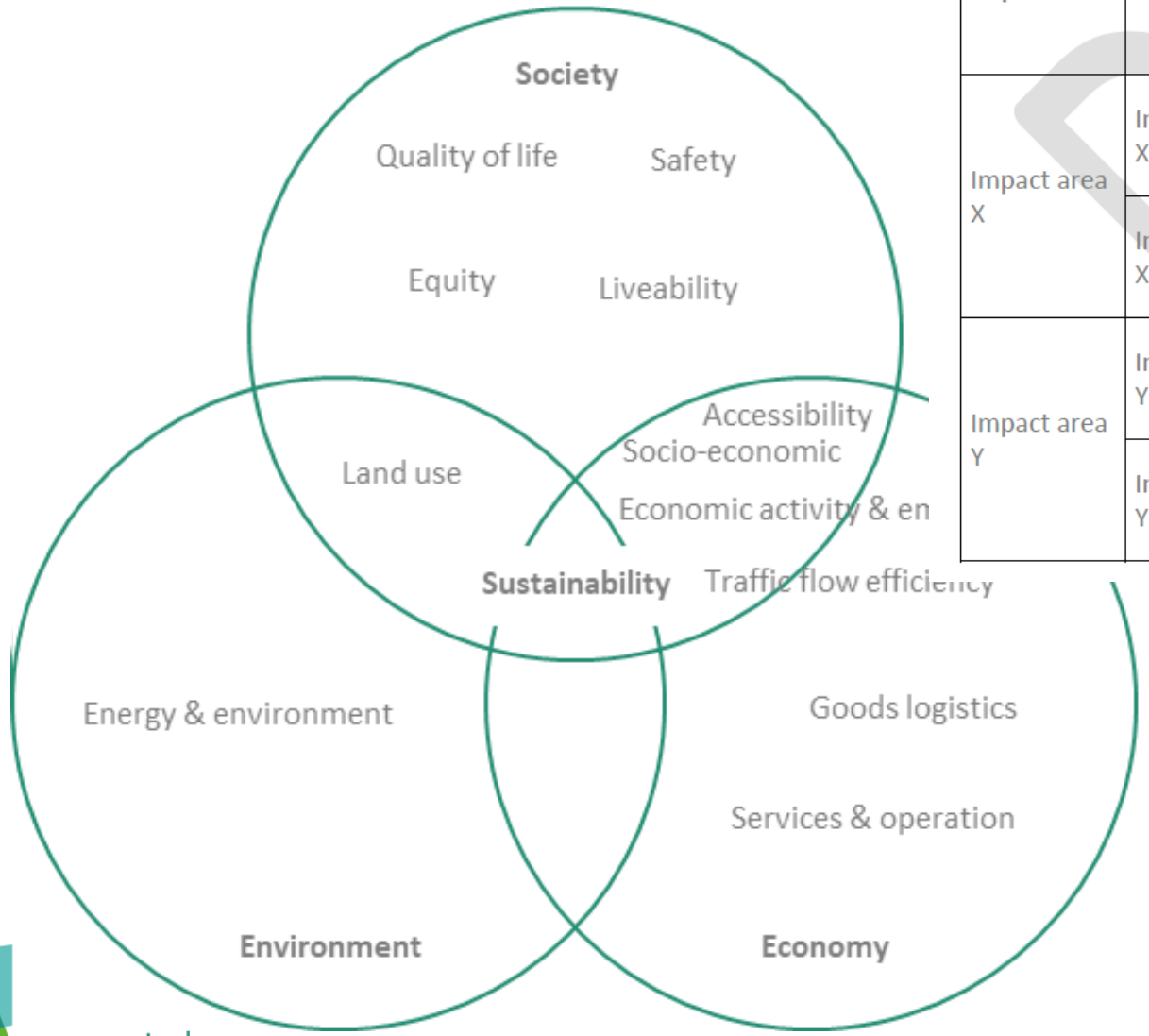
Sustainability impact



Impact area	Indicator	Impact			Context
		Scenario 1	Scenario 2	Scenario 3	
Impact area X	Indicator X.1	[Result]	[Result]	[Result]	Positive/negative for sustainability
	Indicator X.2	[Result]	[Result]	[Result]	Positive/negative for sustainability
Impact area Y	Indicator Y.1	[Result]	[Result]	[Result]	Positive/negative for sustainability
	Indicator Y.2	[Result]	[Result]	[Result]	Positive/negative for sustainability

For whom?

- Researchers conducting impact assessment: **How to set up a feasible evaluation plan?**
- Project coordinators: **How to ensure success of evaluation in your project?**
- OEMs: **Who are the potential users of these vehicles? What are impacts of their use?**
- Service providers: **How to optimise your service?**
- Authorities: **What are the societal impacts of CCAM?**

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Timeline

- Public draft of the EU-CEM Handbook **available** in connectedautomateddriving.eu/methodology/common-evaluation-methodology/
- Currently working on final version based on public consultation
- **Final version of EU-CEM Handbook in May 2025**

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Thank you!

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