









Action

Related Task

Organize both large-scale pilots (low level TRL) and FOTs (high level TRL) to assess the implications of the new technology and related services in different environments

System & Services / Society-related

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Why is this action important? 	Key uncertainties 	Action description 	Possible impacts 															
<ul style="list-style-type: none"> FOTs and pilots are needed to obtain relevant, real world data Most tests have not yet been large-scale, meaning including many vehicles and for a longer period To understand the risks that could impact safety critical functionalities due to cyber-attacks and failure (functional safety) but also potential inadequate control, undesirable control actions, driver misuse and inadequate interaction with other road users (operational safety) To understand travel behaviour changes Needed is a multidimensional evaluation methodology to clarify what added value CAD will bring on a socio-economic level, going beyond FESTA To improve comparability and significance of results at national and European levels <p><i>Further arguments?</i></p>	<ul style="list-style-type: none"> Socio-economically, there is still a lack of knowledge on how CAD will impact the daily lives of users, especially the indirect and long-term impacts are difficult to assess Impacts are dependent not only on technological solutions but also on political decisions and on public acceptance Impacts will be different for different regions and for different persons Technology can develop so rapidly that the tested systems can be obsolete Different and new methods and simulations may be needed for evaluation Permissions for testing on the real road are hard to obtain Data and experiences are not shared enough, so we cannot learn from other FOTs and pilots <p><i>Further key uncertainties?</i></p> <p><i>Specific key uncertainties for truck or urban?</i></p> <div style="background-color: #4CAF50; color: white; padding: 5px; text-align: center;"> Cause-effect or working mechanism  </div> <ul style="list-style-type: none"> Cause: FOTs and pilots provide data on functioning and use of CAVs Effect: improvement of development and knowledge about impacts Working mechanism: only when tested on public roads, real-life issues and impacts can be understood and reflected in development and deployment, and policies <p><i>Questions/ Feedback?</i></p>	<ul style="list-style-type: none"> A FOT is a study undertaken to evaluate functions, under normal operating conditions in road traffic environments typically encountered by the participants to identify real-world effects and benefits Pilots are tests with prototypes, could be done in closed environments, with safety drivers, under more experimental conditions Large scale pilots test prototype systems in different environments The level of TRL determines the nature of the test <p><i>Questions/ Feedback?</i></p>	<ul style="list-style-type: none"> Knowledge accumulation on the impacts of CAVs, to be used by different stakeholders and strategies Improvement for future development and deployment Recommendations and guidelines for policies, based on evidence Identification of successful cases New and improved evaluation methodologies <p><i>Further possible impacts?</i></p> <div style="background-color: #4CAF50; color: white; padding: 5px; text-align: center;"> Stakeholders  </div> <table border="1"> <thead> <tr> <th>Actor</th> <th>Task</th> <th>Role</th> </tr> </thead> <tbody> <tr> <td>EC</td> <td>European initiatives, projects, and programmes</td> <td>Funding, coordination</td> </tr> <tr> <td>Industry</td> <td>Technology development</td> <td>Test systems, data sharing</td> </tr> <tr> <td>Public authorities</td> <td>Setting objectives, regulation, support, legal framework</td> <td>Permissions, data sharing</td> </tr> <tr> <td>Research</td> <td>Methodology</td> <td>Evaluation, impact assessment</td> </tr> </tbody> </table> <p><i>Further stakeholders?</i></p>	Actor	Task	Role	EC	European initiatives, projects, and programmes	Funding, coordination	Industry	Technology development	Test systems, data sharing	Public authorities	Setting objectives, regulation, support, legal framework	Permissions, data sharing	Research	Methodology	Evaluation, impact assessment
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<div style="background-color: #4CAF50; color: white; padding: 5px; text-align: center;"> Evaluation criteria  </div> <ul style="list-style-type: none"> Best practices for evaluation Data and experience shared Knowledge Base filled Evidence of tests being large-scale <p><i>Further evaluation criteria?</i></p>	<div style="background-color: #4CAF50; color: white; padding: 5px; text-align: center;"> Key references  </div> <ul style="list-style-type: none"> FESTA Handbook Data Sharing Framework (available from the Knowledge Base) <p><i>Further key references?</i></p>																	