# EU Commission Expert Group to advise on specific ethical issues raised by driverless mobility (2019-2020)
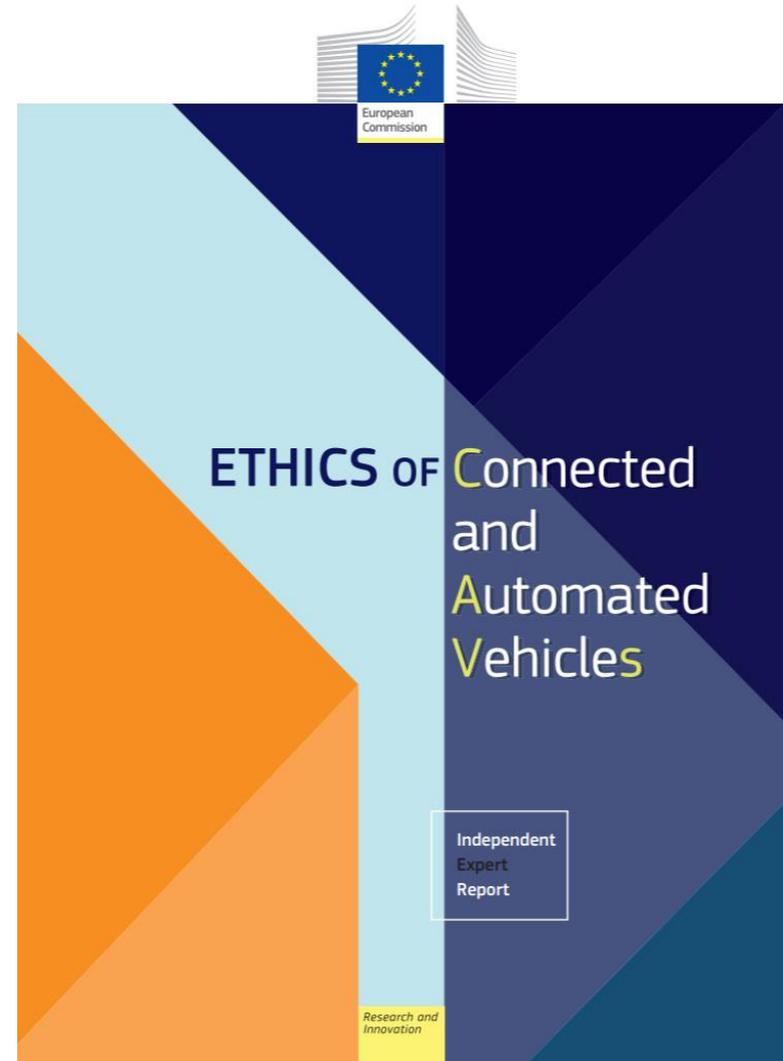
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**Aalto University
School of Engineering**
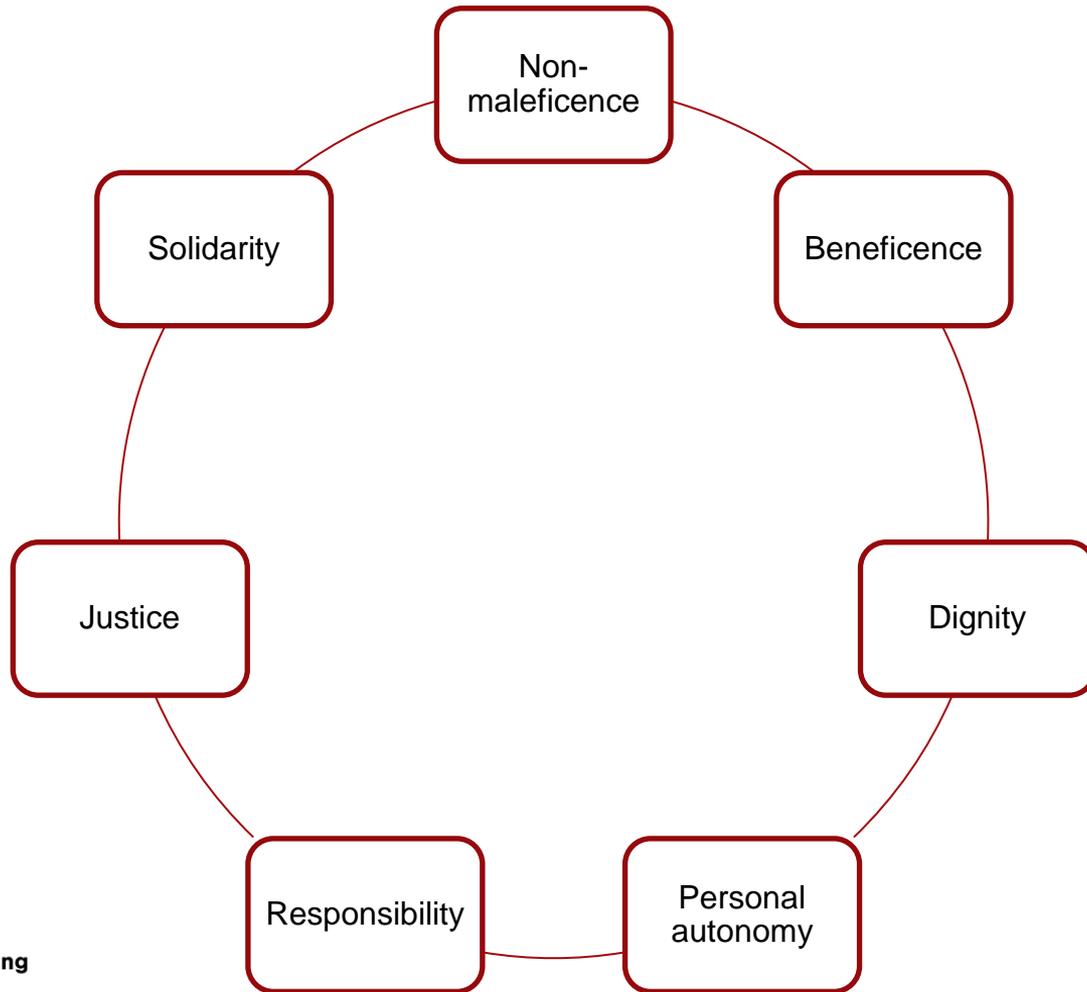
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# A bit about the process…

# Of translation…

- **A philosopher, transport engineer, and sociologist enter the room…**

- **Followed by:**

  - Law

  - Psychology

  - Economics

  - Computer science

  - Mechanical engineering

  - Telecomm engineering



ETHICS OF Connected and Automated Vehicles

European Commission

Independent Expert Report

Research and Innovation

**A?** Aalto University School of Engineering

# Guiding ethical principles

Non-maleficence

Beneficence

Dignity

Personal autonomy

Responsibility

Justice

Solidarity

# Recomendations

# Safety, risk, dilemmas

1. Ensure that connected and automated vehicles (CAVs) reduce physical harm to persons
2. Prevent incorrect use by inherently safe design
3. Define standards for responsible open road testing
4. Consider revision of traffic rules to promote safety of CAVs and investigate exceptions to compliance with existing rules by CAVs
5. Redress inequalities in vulnerability among road users
6. Manage dilemmas by principles of risk distribution and shared ethical principles

# Privacy, fairness, explainability

1. Safeguard informed consent and informational privacy
2. Enable user choice and develop best practice industry standards
3. Strengthen individual data privacy with group privacy protection
4. Develop transparency strategies to inform about data collection and associated rights
5. Prevent discriminatory differential service provision
6. Audit CAV algorithms
7. Protect high-value datasets as public and open infrastructural resources
8. Reduce opacity in algorithmic decisions
9. Promote data, algorithmic, AI literacy and public participation

# Responsibility, accountability, liability

1. Identify ethical and societal obligations of different agents involved in CAVs
2. Identify and promote good practices to ensure compliance with moral and legal obligations
3. Ensure "accountability" for the behaviour of CAVs (duty to explain)
4. Promote a fair system of attribution of moral and legal culpability for the behaviour of CAVs
5. Create fair and effective mechanisms for granting compensation to victims of crashes involving CAVs

# Thank you!

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LINK TO REPORT

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