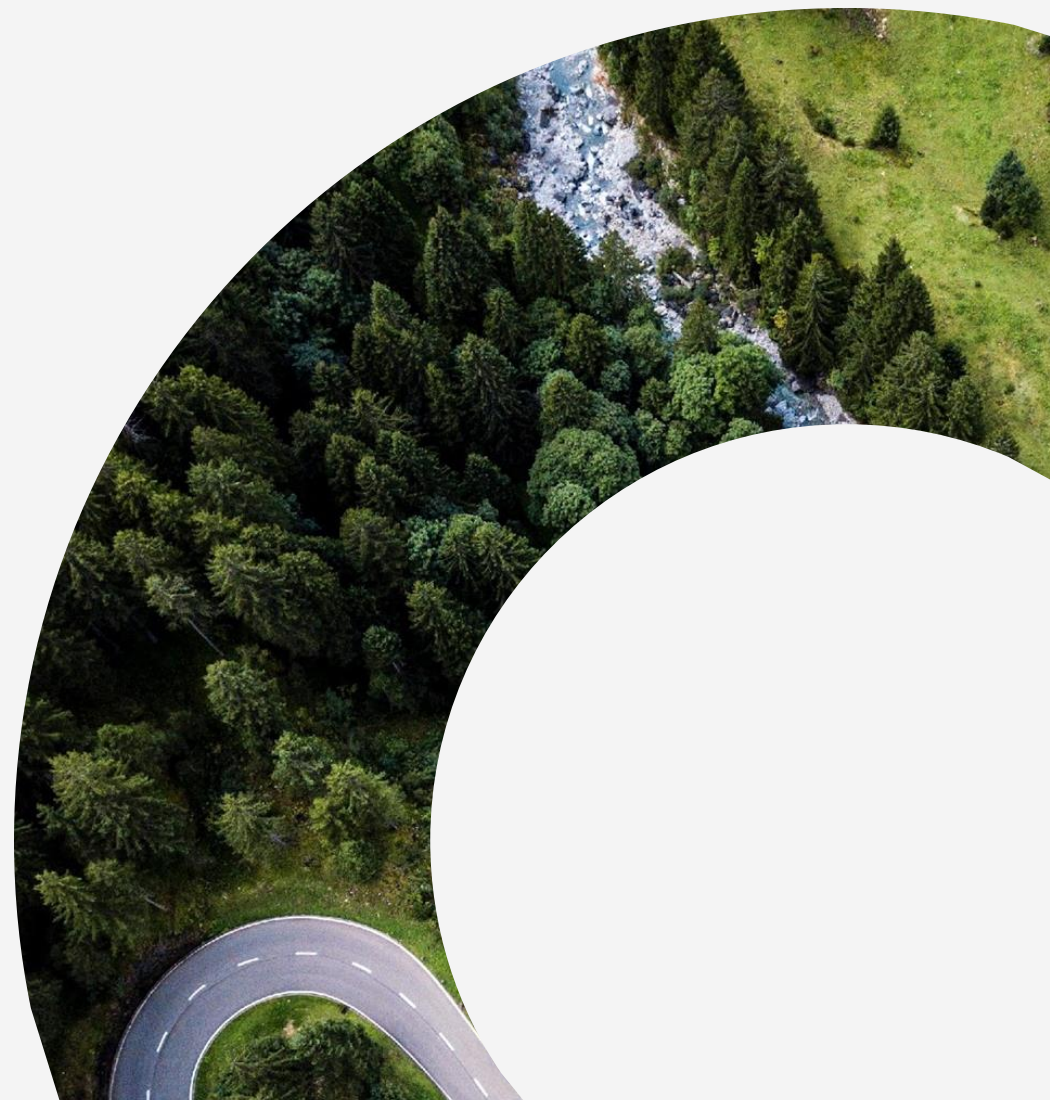


# First insights on policy options and possibilities

Harald Maaland 22.10.25



# Project objective: Accelerating the use of Zero Emission Construction Equipment in Europe

1. Knowledge sharing between different countries.
2. Promote successful policies (mainly from Norway and the Netherlands) and adapt them to relevant countries.
3. Encourage the producers to increased sales of electrical machinery through EU, national and local policies.

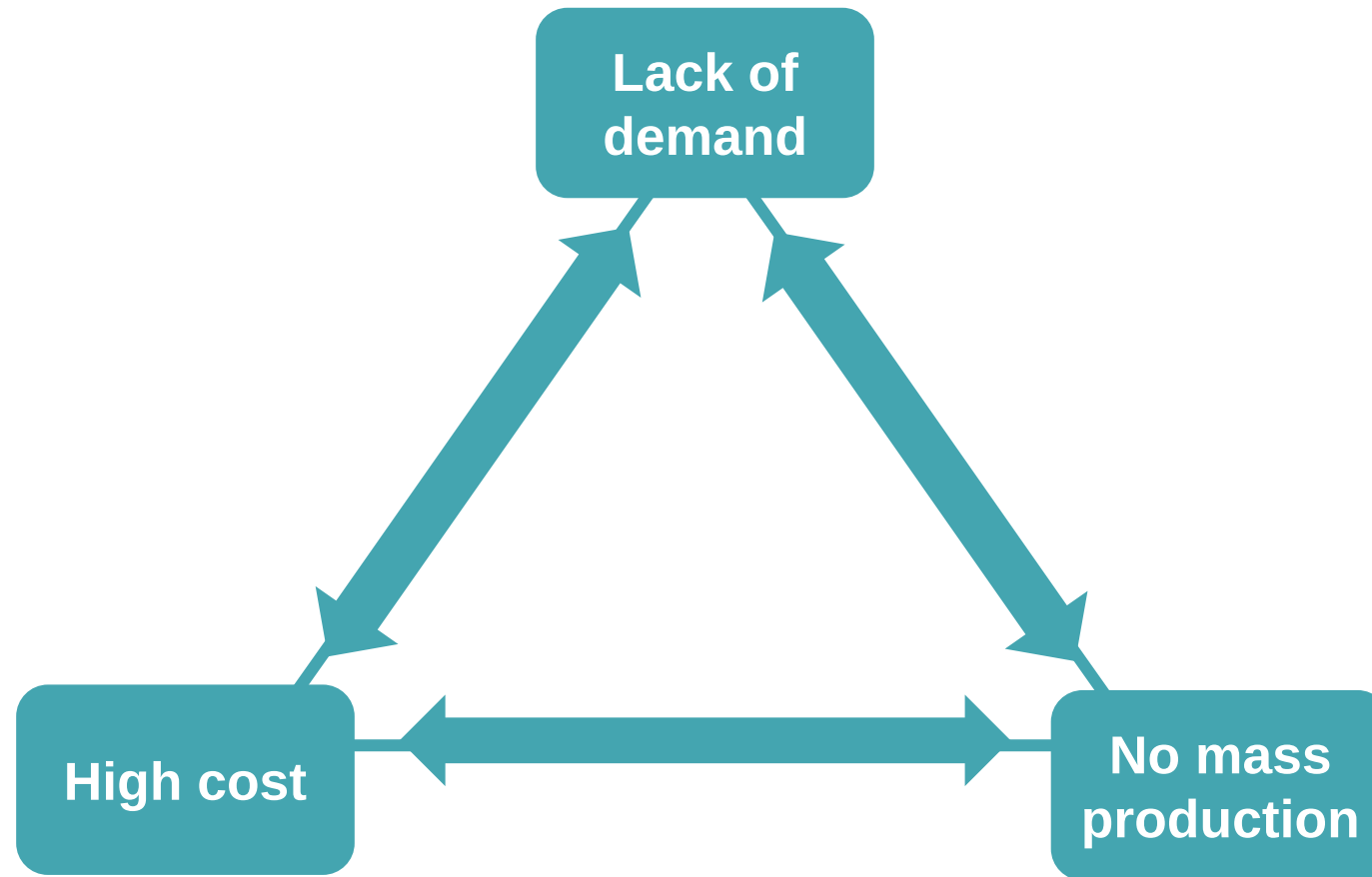
Report launch 27.10.25 at the [ZERO Conference](#) in Oslo



# Successful policy learnings from The Netherlands and Norway

- Public procurement
- National funding
- Extensive cooperation
- Charging infrastructure, early planning
- Positive additional benefits







| Barriers                        | Policy tool        |
|---------------------------------|--------------------|
| Lack of market and knowledge    | Pilot schemes      |
| Lack of demand                  | Public procurement |
| Lack of supply, high cost       | Regulation         |
| High investment cost, poor grid | Financial support  |



| Barriers                        | Policy tool        | Local                                                                                                                                                                                                                   |
|---------------------------------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Lack of market and knowledge    | Pilot schemes      | <ol style="list-style-type: none"><li>1. Start with smaller, controlled ZECS pilots</li><li>2. Use results to inform guidelines and standardise requirements</li></ol>                                                  |
| Lack of demand                  | Public procurement | <ol style="list-style-type: none"><li>1. Enable early market dialogue</li><li>2. Set a clear future procurement target</li><li>3. Demand increasing % of ZEM in tenders</li><li>4. Coordinate energy planning</li></ol> |
| Lack of supply, high cost       | Regulation         | <ol style="list-style-type: none"><li>1. Require gradually increasing % of ZE in all major construction sites</li><li>2. Building permits regulation</li><li>3. Zero Emission Zone</li></ol>                            |
| High investment cost, poor grid | Financial support  | In absense of national financial support, consider local, targeted support schemes (grid, power solutions, machinery etc.)                                                                                              |



| Barriers                        | Policy tool        | National                                                                                                                                                                                                                                                                                                                                                                                            |
|---------------------------------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Lack of market and knowledge    | Pilot schemes      | <ol style="list-style-type: none"> <li>1. Public Infrastructure Companies with pilots in portfolio</li> <li>2. Pilot projects when building national/EU charging infrastructure for transport (AFIR)</li> </ol>                                                                                                                                                                                     |
| Lack of demand                  | Public procurement | <ol style="list-style-type: none"> <li>1. Binding National Road Map</li> <li>2. National Road Authorities: <ol style="list-style-type: none"> <li>I. Set a clear target and strategy</li> <li>II. Make a committing internal plan</li> <li>III. Follow up in tenders, demanding increasing % of ZE</li> </ol> </li> <li>3. Demand an increasing % of ZE in all public construction sites</li> </ol> |
| Lack of supply, high cost       | Regulation         | <ol style="list-style-type: none"> <li>1. Provide legal framework for cities to impose local regulation</li> <li>2. Notify upcoming building regulations with increased share of ZE machinery</li> <li>3. National ban on fossil fuels on all construction sites from (investigated and announced well in advance)</li> </ol>                                                                       |
| High investment cost, poor grid | Financial support  | <ol style="list-style-type: none"> <li>1. National funding to public procurers, covering a portion of extra cost of ZE in tenders</li> <li>2. National support to buyers of ZE machinery and charging equipment/energy systems for site</li> </ol>                                                                                                                                                  |





| Barriers                        | Policy tool        | EU                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|---------------------------------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Lack of market and knowledge    | Pilot schemes      | <ol style="list-style-type: none"> <li>1. Set up pilots in EU financed infrastructure projects (DG MOVE)</li> <li>2. Upcoming Connecting Europe Facility Fund</li> </ol>                                                                                                                                                                                                                                                                                                                 |
| Lack of demand                  | Public procurement | <ol style="list-style-type: none"> <li>1. Add ZE machinery as new category in revised Clean Vehicles Directive 2027 (10%-100% ZEM 2030-2040)</li> <li>2. Revised Public Procurement Directive: Mandatory, increased use of ZEM</li> </ol>                                                                                                                                                                                                                                                |
| Lack of supply, high cost       | Regulation         | <p>Regulate CO2-emissions from NRMM through OEMs.<br/>Similar to light duty vehicles regulation: Gradual tightening, until 100% sold ZEM in the EU by 2040. Several models:</p> <ol style="list-style-type: none"> <li>I. A percentage of all produced machines must be ZE (measured in kWh)</li> <li>II. A percentage of all produced machines must be ZE (measured in tons)</li> <li>III. A percentage of all produced machines must be ZE (measured in number of machines)</li> </ol> |
| High investment cost, poor grid | Financial support  | <ol style="list-style-type: none"> <li>1. Define NRMM as a critical industry</li> <li>2. Support build-up of a ZE European NRMM value chain through upcoming European Competitiveness Fund</li> </ol>                                                                                                                                                                                                                                                                                    |



| Barriers                        | Policy tool        | EU                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | National                                                                                                                                                                                                                                                                                                                                                                                     | Local                                                                                                                                                                                                            |
|---------------------------------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Lack of market and knowledge    | Pilot schemes      | <ol style="list-style-type: none"> <li>Set up pilots in EU financed infrastructure projects (DG MOVE)</li> <li>Upcoming Connecting Europe Facility Fund</li> </ol>                                                                                                                                                                                                                                                                                                       | <ol style="list-style-type: none"> <li>Public Infrastructure Companies with pilots in portfolio</li> <li>Pilot projects when building national/EU charging infrastructure for transport (AFIR)</li> </ol>                                                                                                                                                                                    | <ol style="list-style-type: none"> <li>Start with smaller, controlled ZECS pilots</li> <li>Use results to inform guidelines and standardise requirements</li> </ol>                                              |
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| High investment cost, poor grid | Financial support  | <ol style="list-style-type: none"> <li>Define NRMM as a critical industry</li> <li>Support build-up of a ZE European NRMM value chain through upcoming European Competitiveness Fund</li> </ol>                                                                                                                                                                                                                                                                          | <ol style="list-style-type: none"> <li>National funding to public procurers, covering a portion of extra cost of ZE in tenders</li> <li>National support to buyers of ZE machinery and charging equipment</li> </ol>                                                                                                                                                                         | In absense of national financial support, consider local, targeted support schemes (grid, power solutions, machinery etc.)                                                                                       |

| Barriers                        | Policy tool        | EU                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | National                                                                                                                                                                                                                                                                                                                                                                                     | Local                                                                                                                                                                                                            |
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| High investment cost, poor grid | Financial support  | <ol style="list-style-type: none"> <li>Define NRMM as a critical industry</li> <li>Support build-up of a ZE European NRMM value chain through upcoming European Competitiveness Fund</li> </ol>                                                                                                                                                                                                                                                                          | <ol style="list-style-type: none"> <li>National funding to public procurers, covering a portion of extra cost of ZE in tenders</li> <li>National support to buyers of ZE machinery and charging equipment</li> </ol>                                                                                                                                                                         | In absense of national financial support, consider local, targeted support schemes (grid, power solutions, machinery etc.)                                                                                       |



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