

The background of the slide is a photograph of a vast wheat field. The wheat stalks are green and yellow, indicating they are ripe. The field extends to a flat horizon line. In the distance, there are a few scattered trees and a small building. The sky is filled with large, white, fluffy clouds, with some blue sky visible between them.

Overview of Policy Instruments in the Agriculture Sector

Dave Freeman, Ricardo Energy & Environment

Overview

- Effort Sharing Legislation & sectoral GHG emissions
- Emissions profiles
- Agriculture: Sources of Emissions
- Policies and measures
- Mitigation potential
- Measurement, Verification and Reporting



•Effort Sharing Legislation set EU Member State commitments to meet GHG reduction commitments

- Effort Sharing Legislation applied to sectors not in the EU ETS.
 - Transport, buildings, agriculture, non-ETS industry and waste
 - Non-CO2 agriculture emissions included
 - ~60% of EU domestic emissions
- EU Targets (compared to 2005)
 - Reduce emission by 10% by 2020
 - Reduce Emissions by 30% by 2030
- Member States are responsible for policies and measures to limit emissions from the sectors



Contributory policies: Agriculture

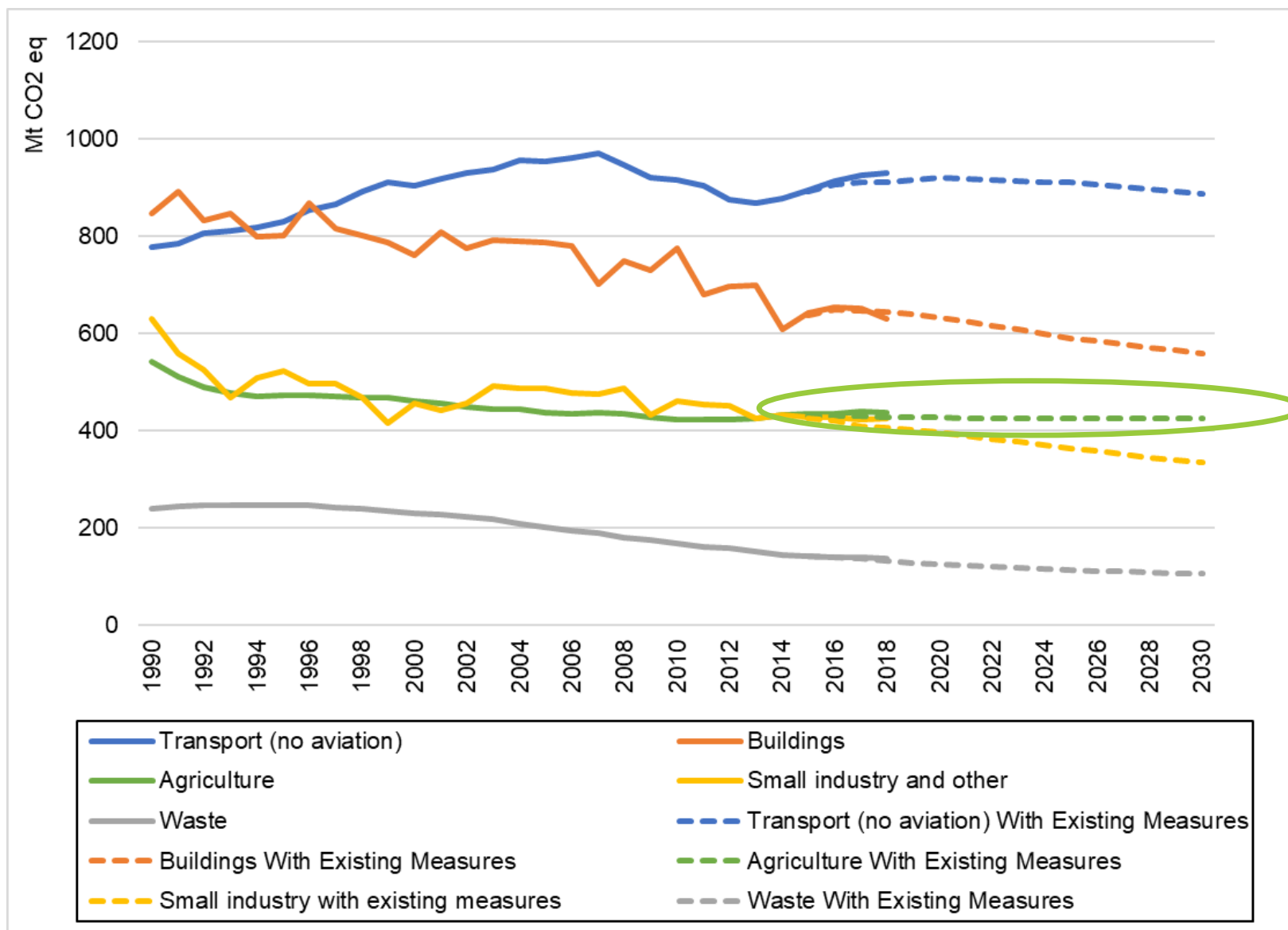
- 2030 emission reduction commitments range from 0 to -40%
 - Based on GDP per capita
 - Combined = EU-wide reduction targets
- EU Green Deal –
 - Climate Target Plan – reductions for EU of 55% by 2030 and Net Neutral by 2050
 - - Agriculture, Land Use, Land Use Change and Forestry – new integrated approach relevant targets
 - Farm to Fork Strategy
 - Sustainable Agriculture - CAP



Emissions Profile

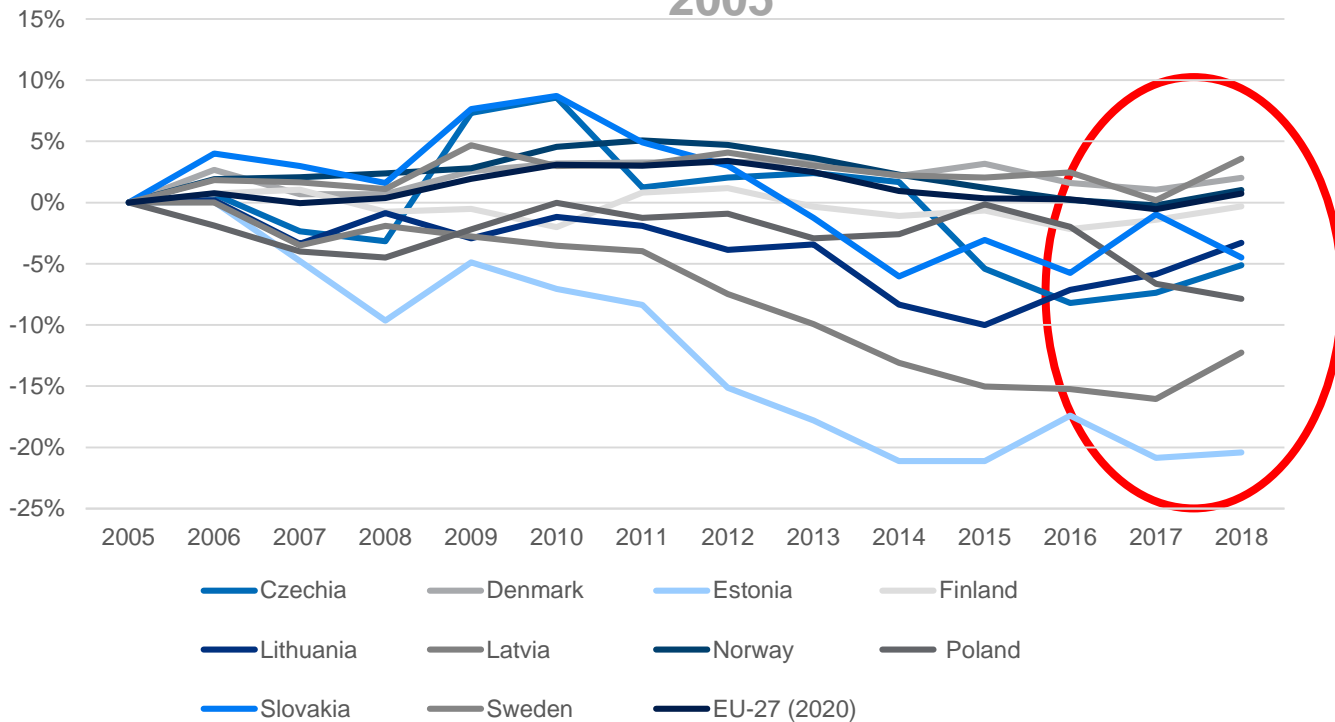
Country	Change in ESR Agriculture (2005 - 2018)	ESR Target Emissions Reduction (2005 - 2030)
EU 27 (+UK)	- 1%	-30%
Slovakia	- 4%	-12%
Lithuania	-3%	-9%
Latvia	-12%	-6%
Estonia	- 20%	-13%
Denmark	2%	-39%
Finland	0%	-39%
Czechia	-5%	-14%
Sweden	4%	-40%
Poland	-8%	-7%

Effort Sharing Sector Emissions 1990 – 2018 (EU27 + UK), projections to 2030



Source: <https://www.eea.europa.eu/data-and-maps/daviz/ghg-emission-trends-and-projections-4#tab-dashboard-01>

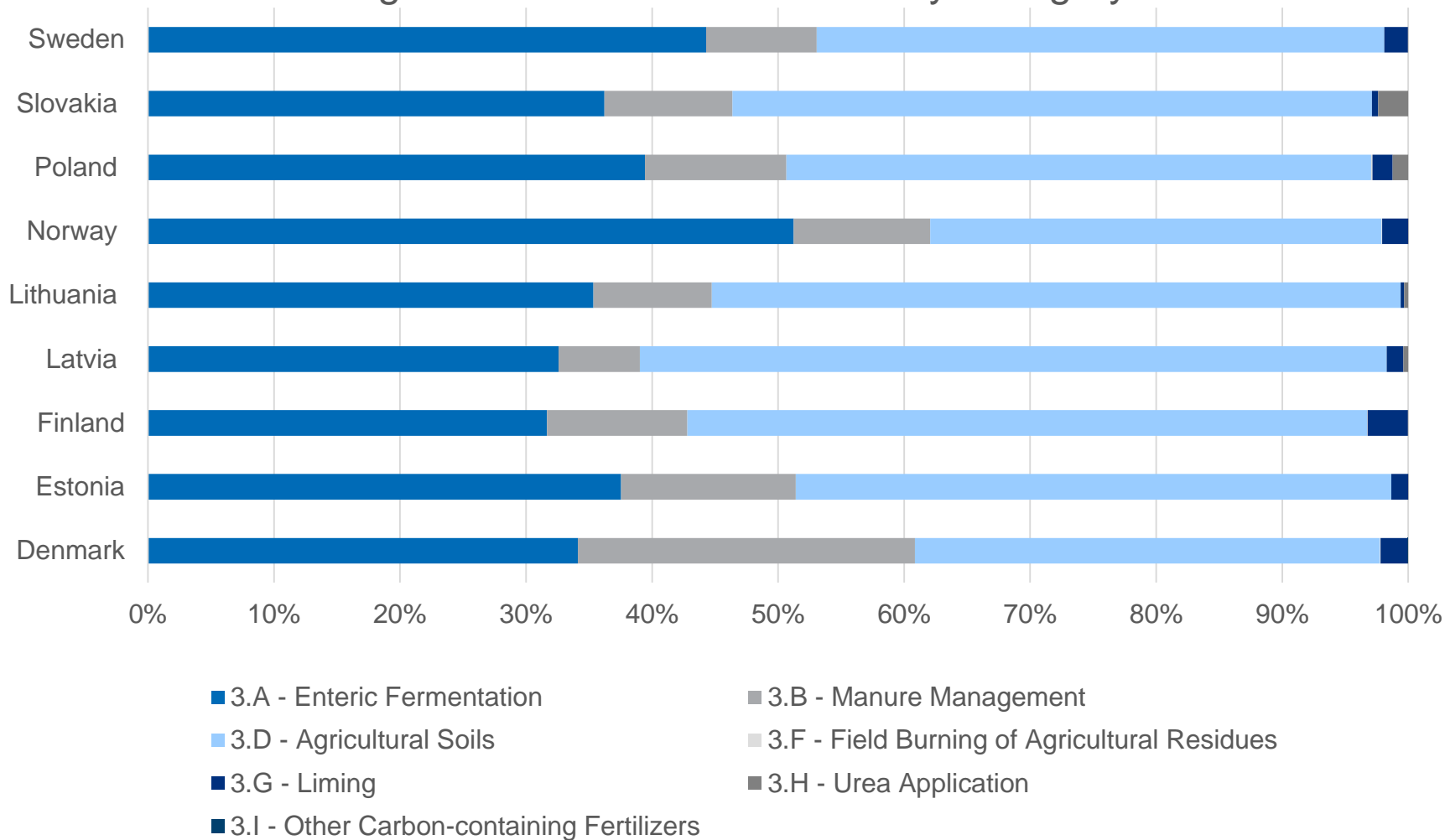
Agriculture Emissions: % variation from 2005



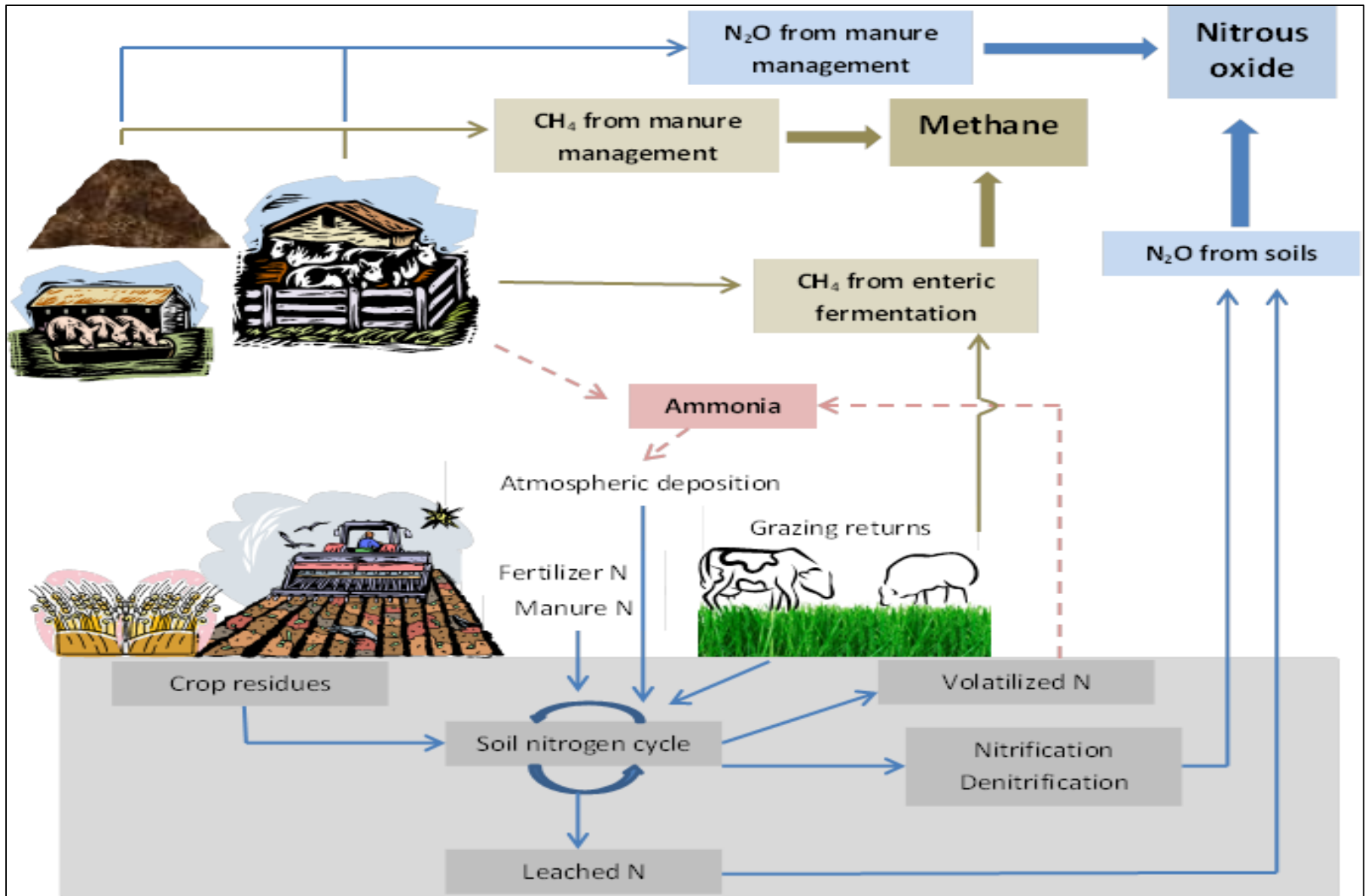
- Some emission reductions since 2011/12
- Variable success across member states.
- Some indications of recent increases?

Targeting: Emissions Profile

Agriculture Emission Sources by Category



Agriculture Emissions Sources



Examples of agriculture mitigation actions

Group	Agriculture mitigation actions
Livestock Production	<ul style="list-style-type: none">• Livestock disease management• Use of sexed semen• Breeding lower methane emissions in ruminants• Feed additives for ruminant diets• Optimised feeding strategies for livestock
Nutrient and Soil management	<ul style="list-style-type: none">• Use of nitrification inhibitors• Improved nitrogen efficiency• Biological N fixation in rotations
Tools	<ul style="list-style-type: none">• Nutrient management plans• Carbon Calculators
Crop Production	<ul style="list-style-type: none">• Reduced Tillage• Zero Tillage• Leaving crop residues on the soil surface• Use cover/catch crops



Understanding Mitigation effect: Measurement

Understanding the likely impact mitigation actions on inventories

1. Have a detectable impact on the emissions reported in the inventory and the impact can be specifically attributed to the implementation of the mitigation action:

Measurable and
Effective

2. Have an impact on the emissions reported in the inventory but the effect cannot be specifically attributed to the implementation of the mitigation action:

Difficult to measure/variable
effectiveness

3. Have implied impact on the emissions shown in the inventory due to improvements in emissions intensity of production :

Effect is dependent on
other factors

4. No direct impact on inventories but may have a positive effect on influencing farmer behaviour

No direct effect on the
inventory

Today's Presentations

- GHG Agriculture Emissions in Latvia: Effective measures to reduce the main sources of emissions.
- *Inga Grinfelde, Latvia University of Agriculture, Latvia*

- Focusing on Finland's implementation of the biogas policy challenges, and lesson learnt.
- *Veli-Pekka Reskola, Senior Officer, Ministry of Agriculture and Forestry, Finland.*

- Estonia's policies and measures for the agriculture sector and future plans.
- *Martti Mandel,*
Head of Agricultural Environment Bureau Land Use Policy Department, Ministry of Rural Affairs of the Republic of Estonia.

The background image shows a dairy farm with several black and white cows in a milking parlor. The cows are standing in a line, and a metal bucket is visible in the foreground. The image is semi-transparent, allowing the text to be overlaid.

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