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# EU approaches to supporting agricultural mitigation

**Hilkka Summa**

**DG for Agriculture and Rural development**

**Unit H4 - “Bioenergy, biomass, forestry and climate change“**



## Outline



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- 1) GHG emissions from agriculture in the EU – an overview**
- 2) Recent development of EU policies for mitigation**
- 3) The role of CAP – the “Health Check” proposals**

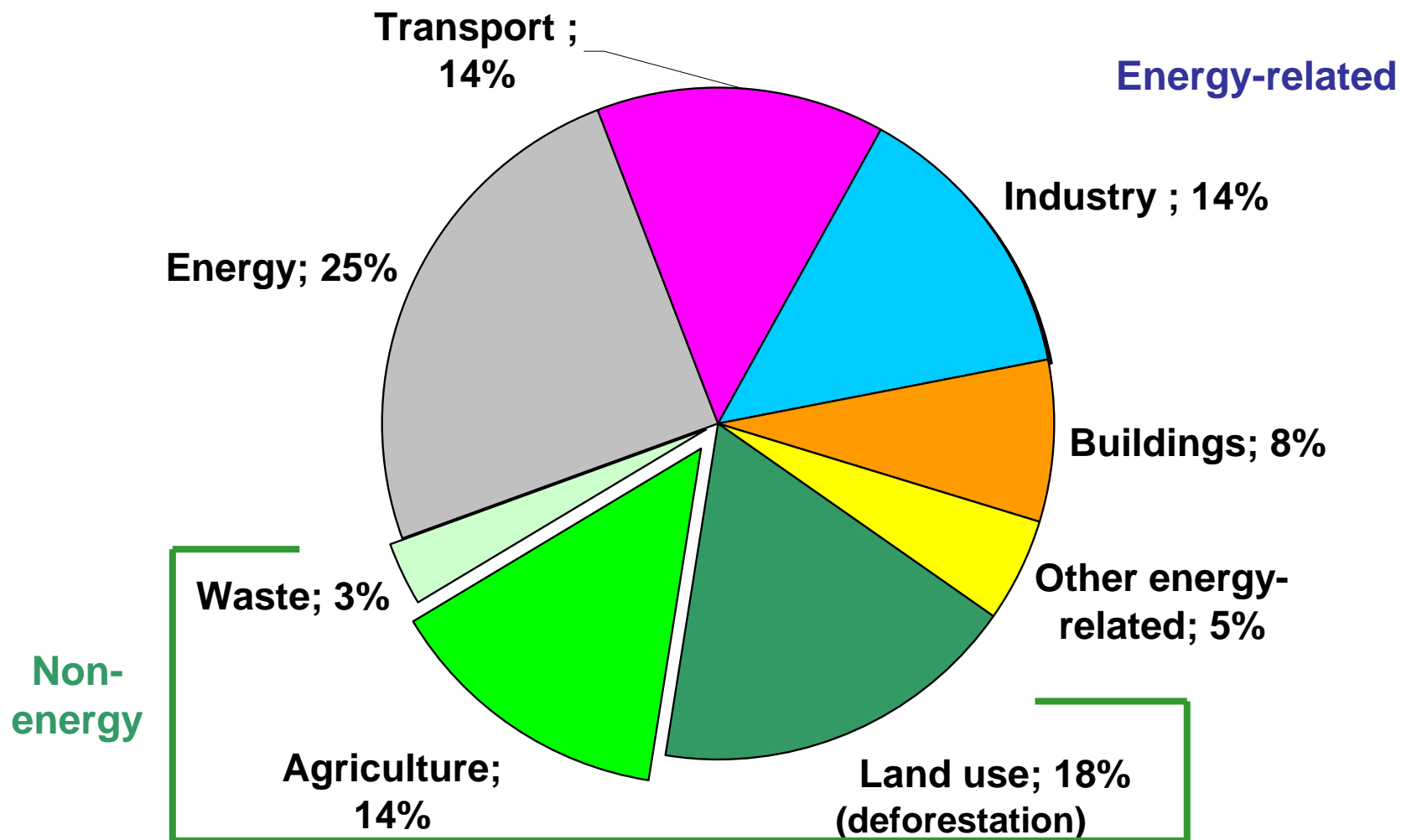


**Agriculture and  
livestock contribute to  
GHG emissions...**

# GHG emission sources- global



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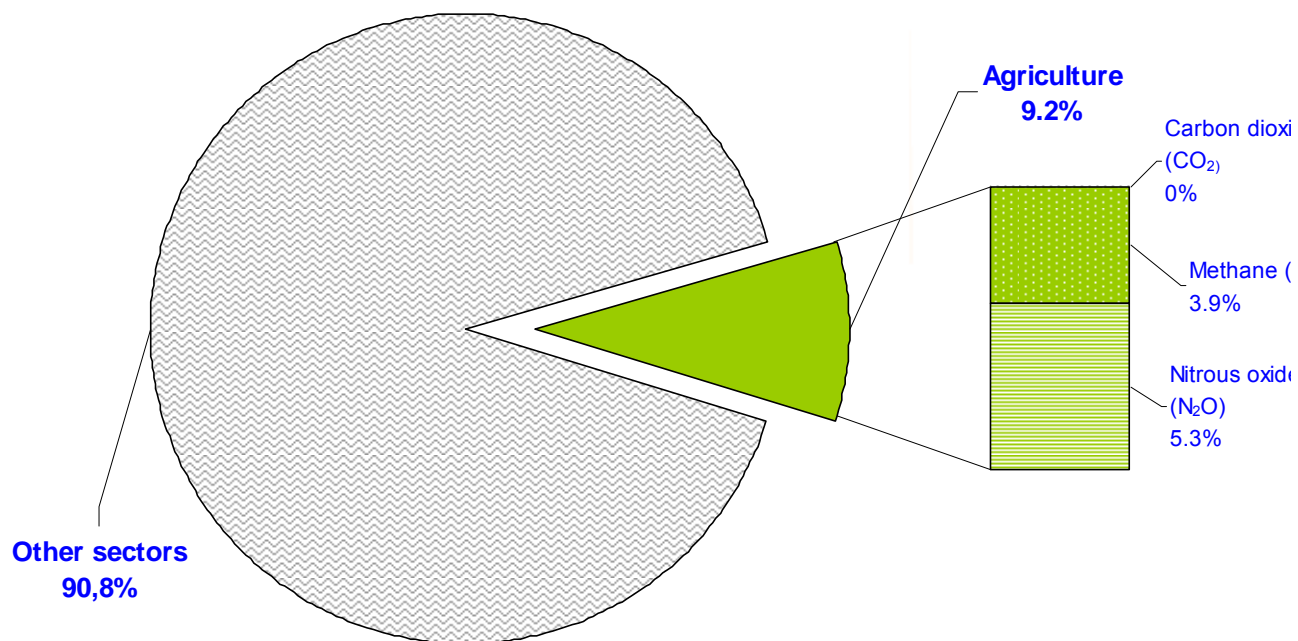


# Agriculture: share of GHG emissions - EU

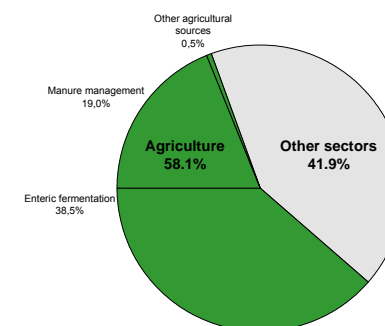


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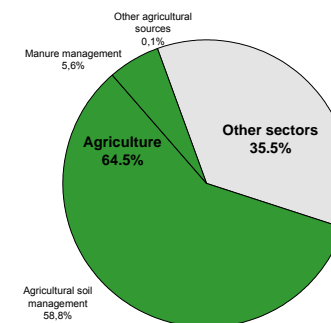
## Total GHG



## Methane (CH<sub>4</sub>)



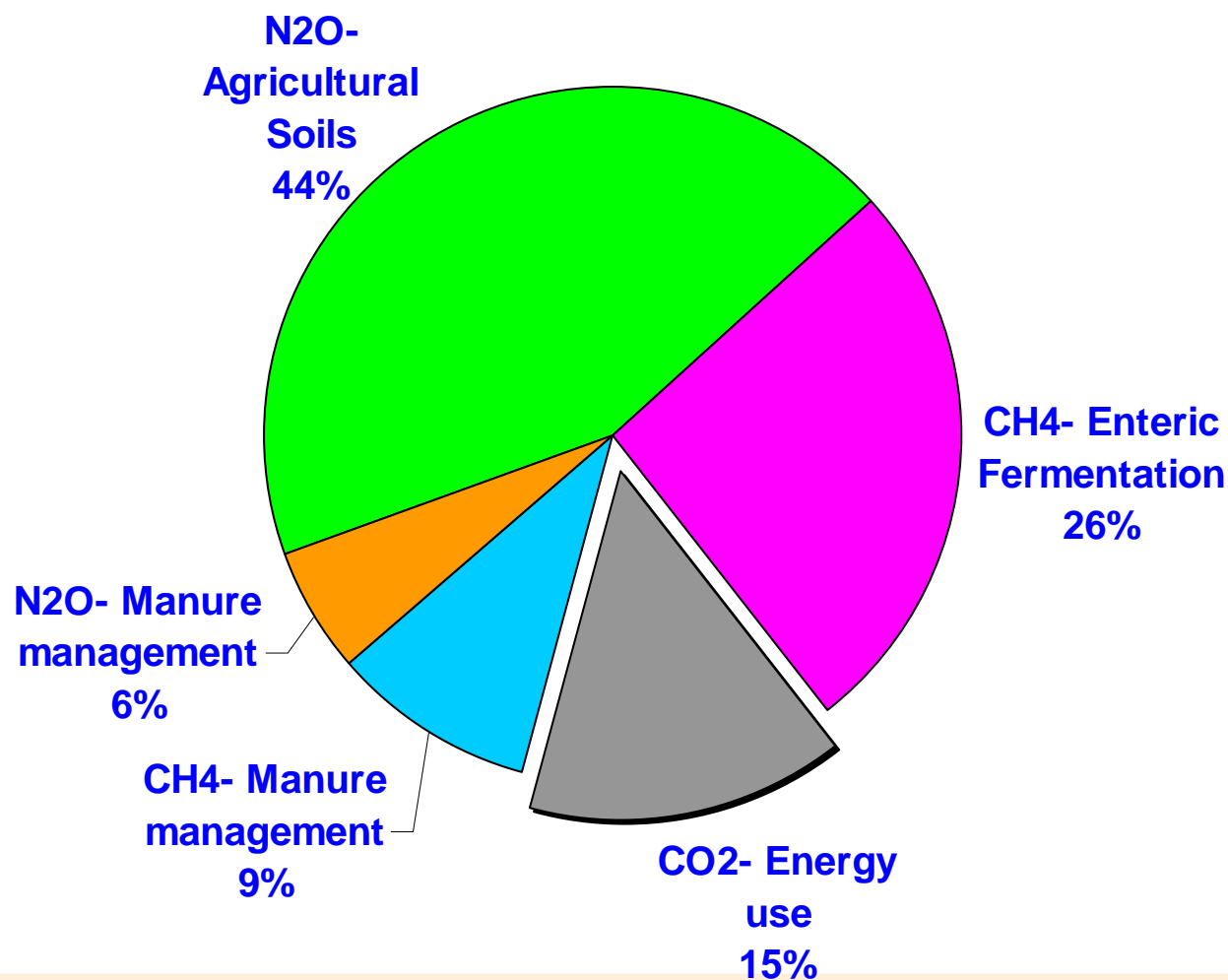
## Nitrous oxide (N<sub>2</sub>O)



# Sources of agriculture GHG emissions



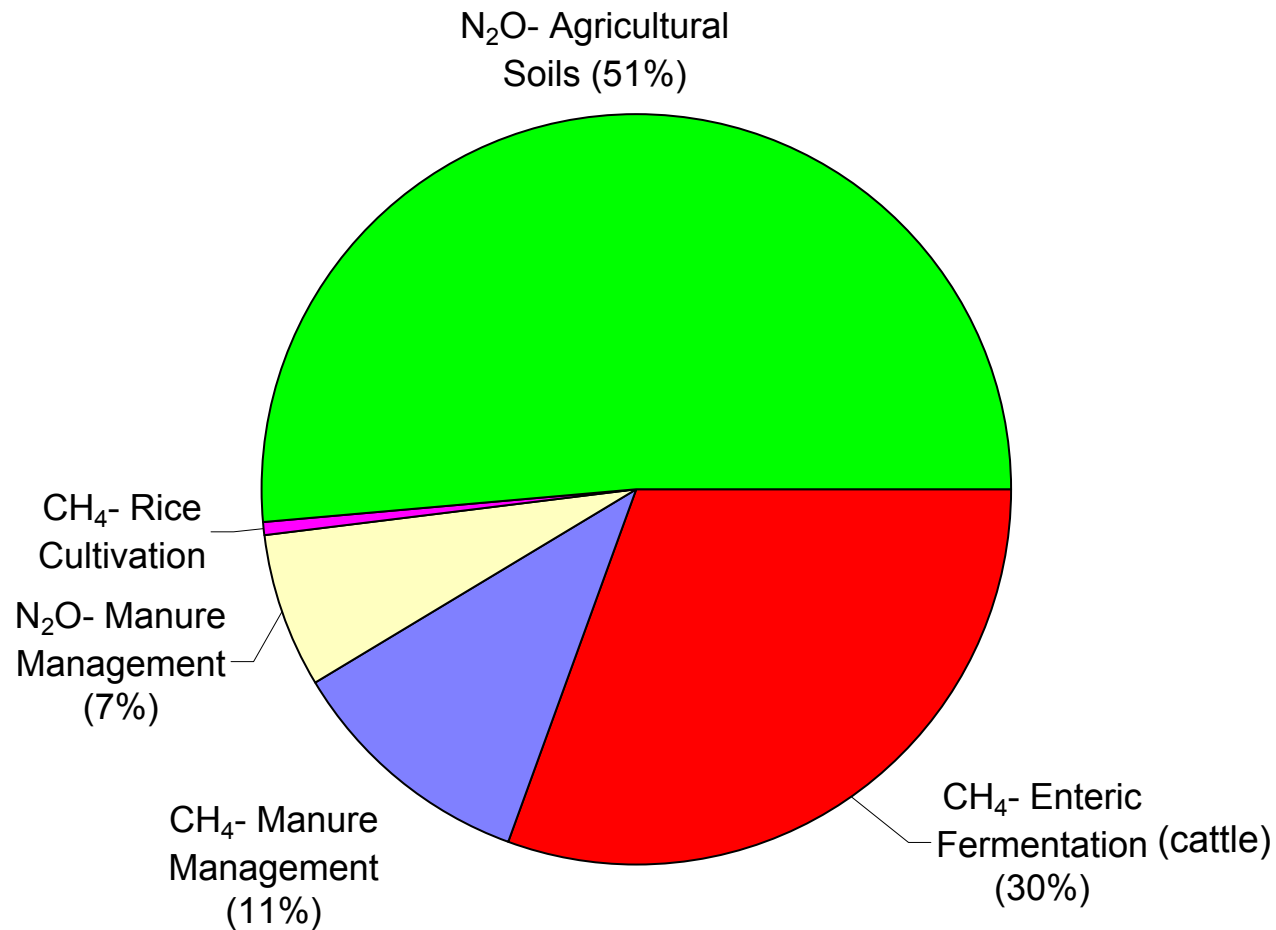
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# Sources of agriculture $N_2O$ and $CH_4$ emissions



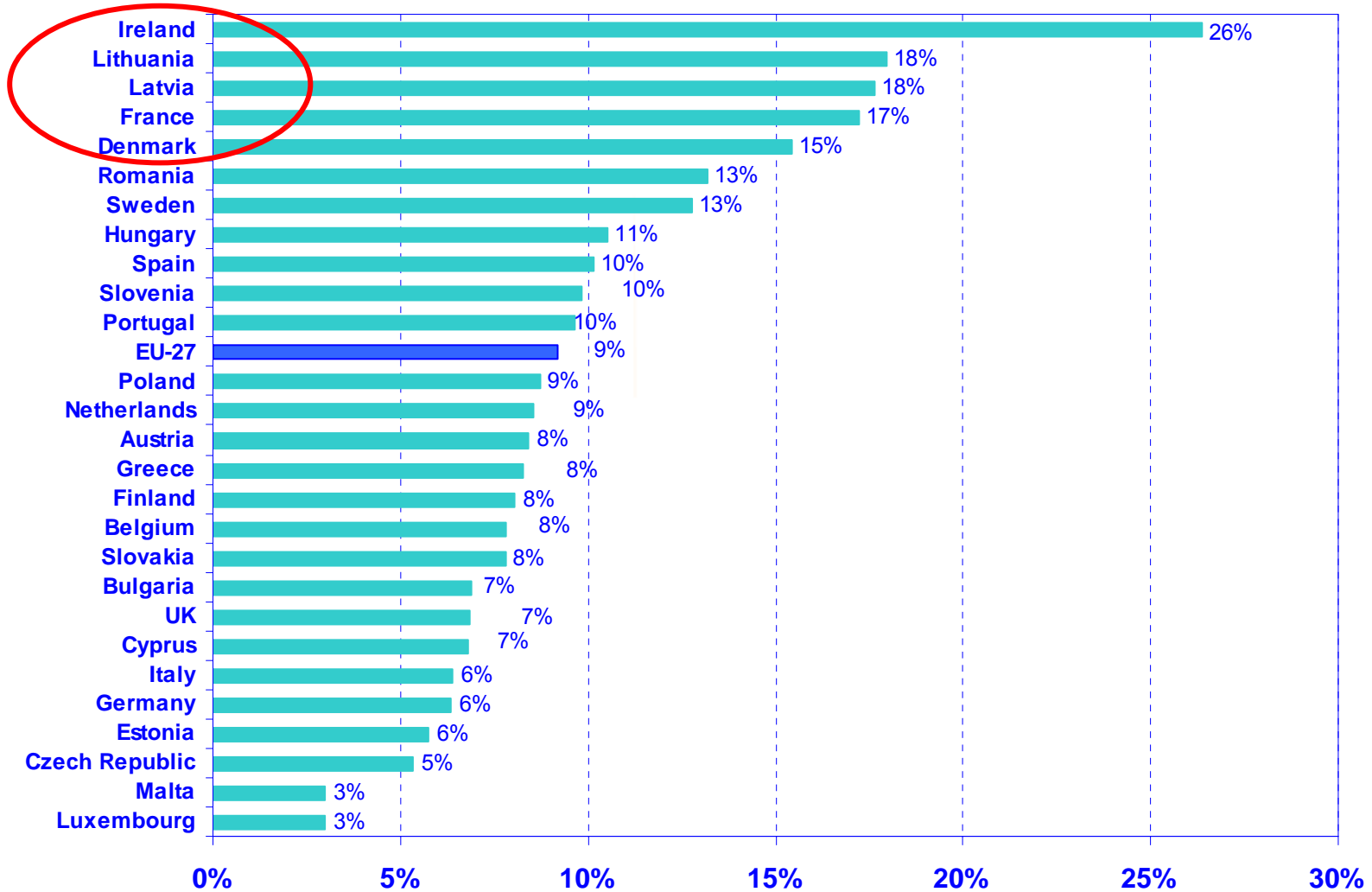
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# Share of total national GHG emissions



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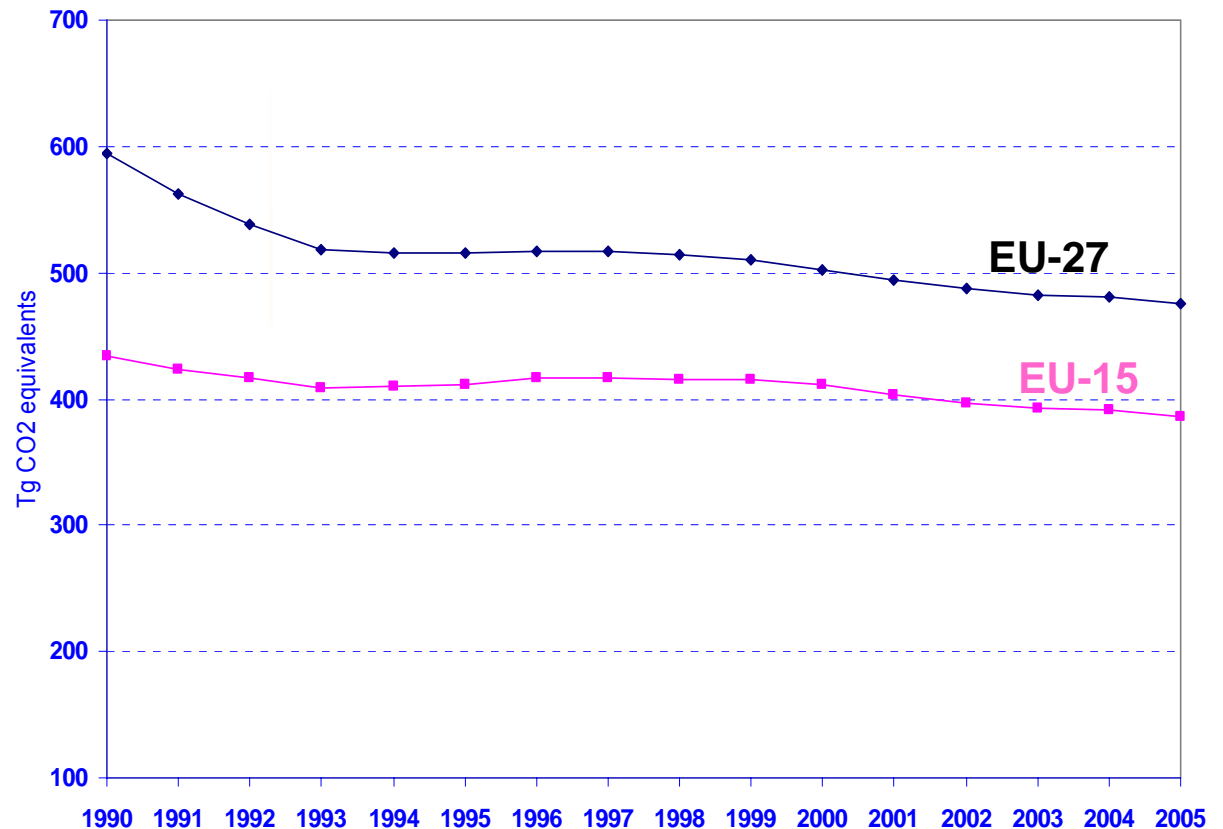


# Declining trend of emissions since 1990



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- EU emissions are **declining**
  - EU-15: -11%
  - EU-27: - 20%
- **EU policies** are contributing: CAP reforms and water policy
- **Resulting in:** decreased **livestock numbers** and **fertiliser use** (mineral and organic), and improved manure handling



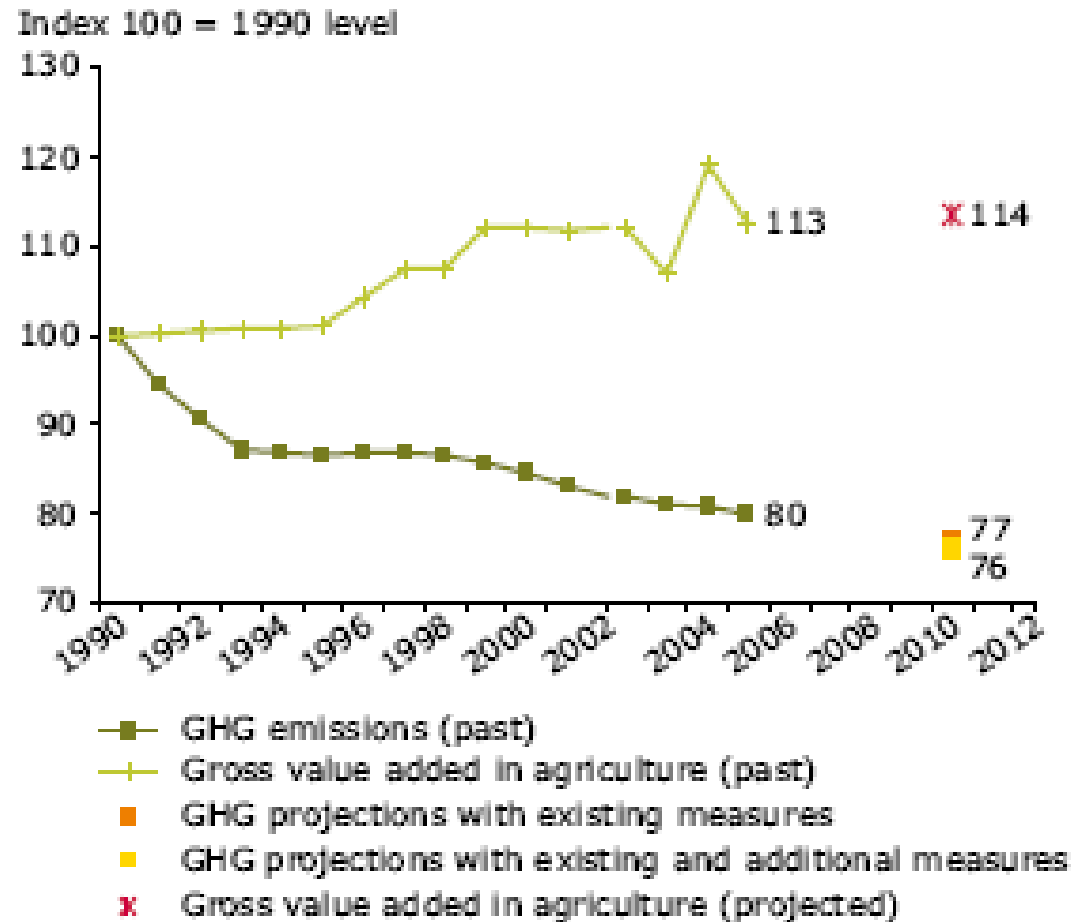


# Trend of agriculture GHG emissions

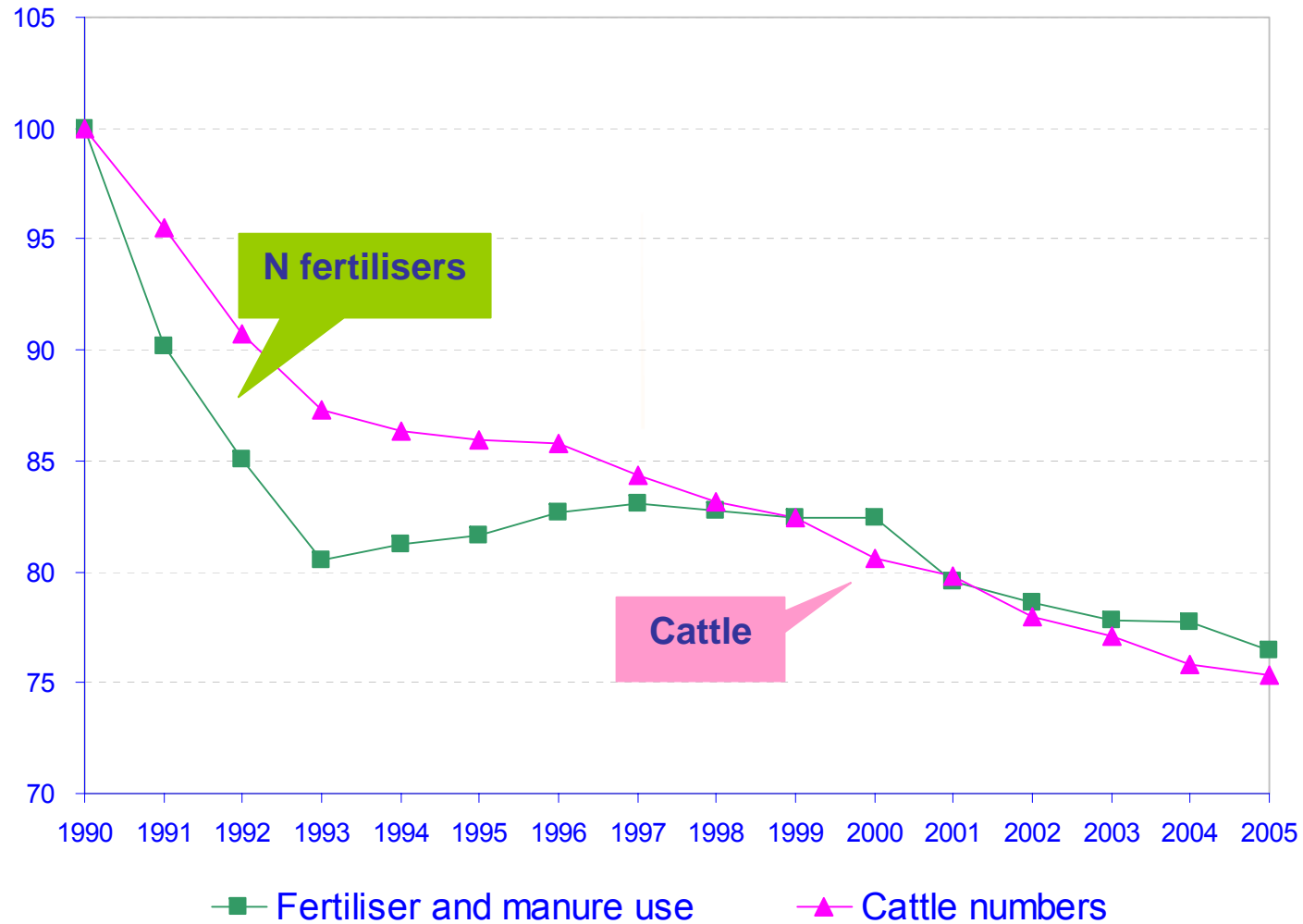


- Emissions **projected to fall by 23% by 2010** (EU-15: -14%)
- Agricultural economic development **“decoupled”** from emissions trend

EU-27



# Main drivers of the declining emissions trend





**How EU policies help  
reduce farm emissions**



## EU climate policy



- ▶ Targets under **Kyoto** Protocol
- ▶ January 2007 - Commission Communication **Limiting global climate change to 2°C**
- ▶ March 2007 - European Council commitments:
  - *reducing EU GHG emissions **20%** by 2020*
  - ***30%** within an international agreement*
- ▶ On-going negotiations to agree on a **renewed international framework** (post-2012) on climate
  - *Global solutions needed*
  - *Comparable commitments for developed countries*
  - *More advanced developing countries contribute to mitigation efforts*

## Climate package – January 2008



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- ▶ Commission legislative proposals “**Energy and climate change**” package
- ▶ Revision and extension **Emission Trading System** of emission allowances
  - *Energy-intensive industries*
  - *Target: - 21% reduction 2005–2020*
- ▶ “**Effort sharing**” **Decision** - objectives for GHG reduction
  - *Sectors **non covered by ETS** (transport, buildings, agriculture) but no sector-specific*
  - *Target: - 10% reduction 2005-2020*
  - *Specific **national** objectives (– 20% to + 20%)*
- ▶ Impact on **agriculture** – step up efforts to reduce emissions



## Mitigation in agriculture – the road to targets



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- Farming methods and techniques
- Productivity improvements
- New solutions – Research & Innovation
- Enhanced role of soils sinks
- Training and advice
- Regulatory conditions on farm practices
- Positive incentives and financial support for farmers

## How does EU policy address agricultural mitigation ?



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- ▶ Development of **EU policies** is contribute to reducing emissions
  - *no specific EU climate policy instruments but agricultural and environmental policy aimed at **sustainability of agriculture***
- ▶ **Environmental legislation** plays an important role
  - *Water protection (nitrates) - WFD*
  - *Emission ceilings (ammonia) - NEC*
- ▶ The **CAP** supports climate change mitigation goals
  - *Decoupled income support*
  - *Cross-compliance – GAEC for soil protection*
- ▶ Measures in **rural development** - *targeted support for climate friendly measures*
  - *Strengthened by **Health Check** proposals*

# Rural development measures



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## Axis 1

- Support for energy-efficient equipment and buildings
- Investments in manure storage facilities
- Improve efficiency nitrogen fertilizer (equipment)
- Biogas production
- Renewable energy from biomass
- Training and advice

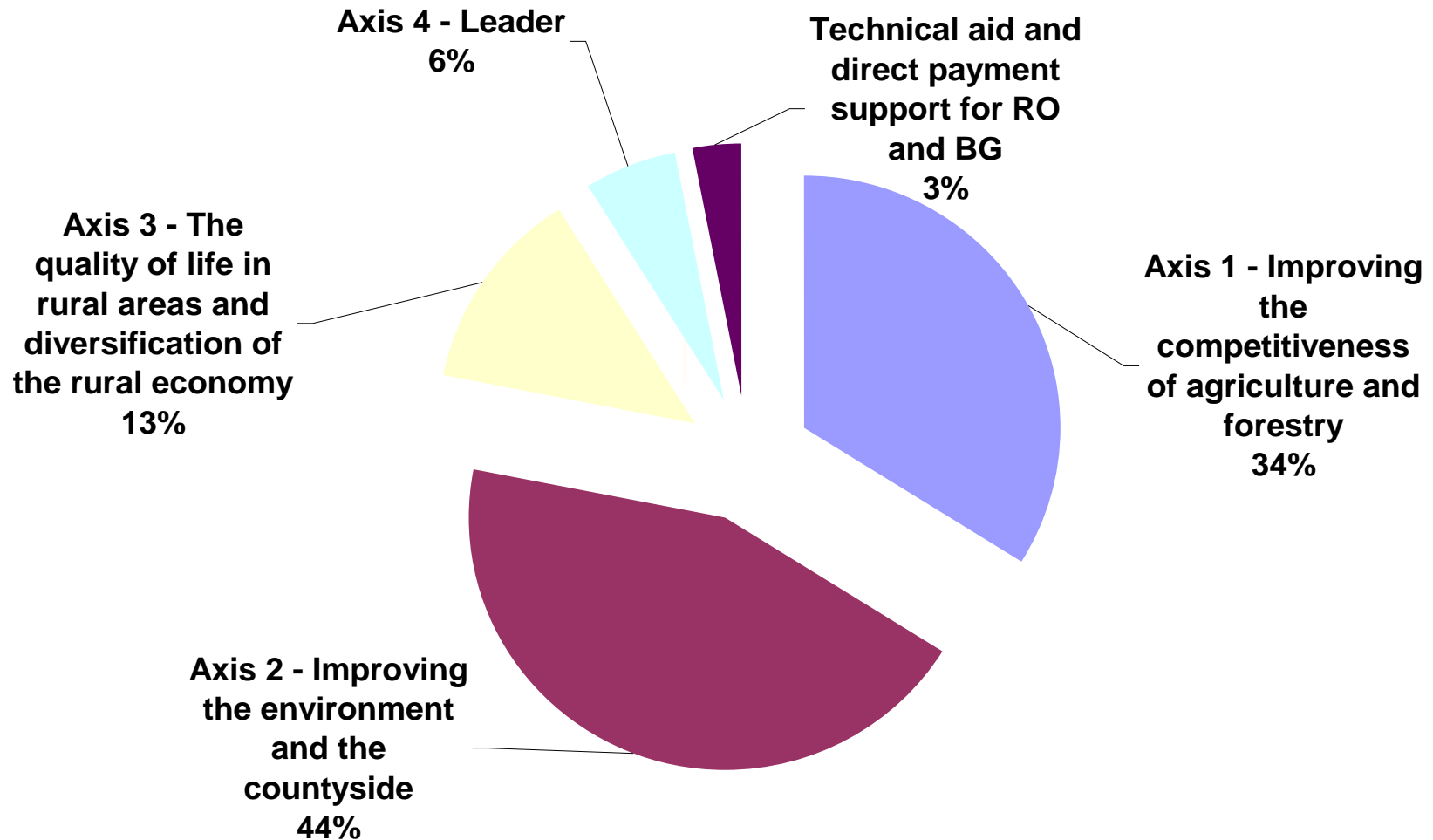
## Axis 2

- Agri-environmental measures
- Reduced fertilizer use
- Extensification of livestock
- Soil management (tillage methods, catch crops, rotations)
- Organic farming
- Land use changes (conversion of arable land to pastures, afforestation)

# Rural development - planned expenditure 2007-13



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## The “Health Check” of the CAP



The “Health Check” *fine-tunes* CAP reform to :

- Make the Single Payment Scheme more effective, efficient and simple
- Adapt market instruments to meet new market opportunities
- Respond to new and ongoing *challenges*
  - ▶ *climate change, bio-energy, water scarcity, biodiversity*

## The “Health Check” of the CAP



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- ▶ Further emphasis on climate change **mitigation** and adaptation as **challenges** for agriculture
- ▶ Strengthened **modulation** – up to 8% (2013) of direct payments + progressive reduction of 3%
- ▶ MS directed to use additional modulation exclusively to reinforce measures for new challenges
- ▶ Further **opportunity** to strengthen the contribution of the CAP to combating climate change
- ▶ Member States should use the **policy instruments available** in the best possible way to concretely contribute to reduce agricultural GHG emissions
- ▶ Impact of phasing-out **milk quotas** relatively reduced



## Wider considerations (1)



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- ▶ Agriculture has **opportunities** to further support climate goals – reduce its GHG emissions, stock carbon in soils and produce renewable energies
- ▶ Reconcile economic constraints & market developments with mitigation efforts – risks of **“carbon leakage”**
- ▶ Consider potential **trade-offs**
  - **productivity** improvements - a key measure for reducing emissions
  - further **intensification** – **overall** environmental efficiency
  - animal welfare



## Wider considerations (2)

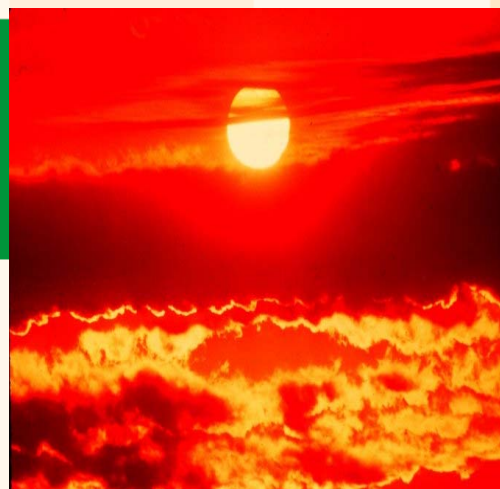


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- ▶ Include carbon credits from **land management** (soil and forest **sinks**) under EU policy framework?
- ▶ **LULUCF** discussions within the international arena – improve **methodologies** for measuring, accounting & monitoring - Key decisions to be taken
- ▶ Technology and behavioural changes - improve **farming** methods and develop **technological** solutions
- ▶ Both **production** and **consumption** changes
- ▶ Deal with climate changes impacts - synergies between **adaptation** and **mitigation**



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