Development of LULUCF reporting and accounting

Giacomo Grassi, Simone Rossi, Anu Korosuo

Joint Research Centre (JRC), European Commission

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European Commission

2003/2006: land-related GHG emissions in the IPCC Guidelines

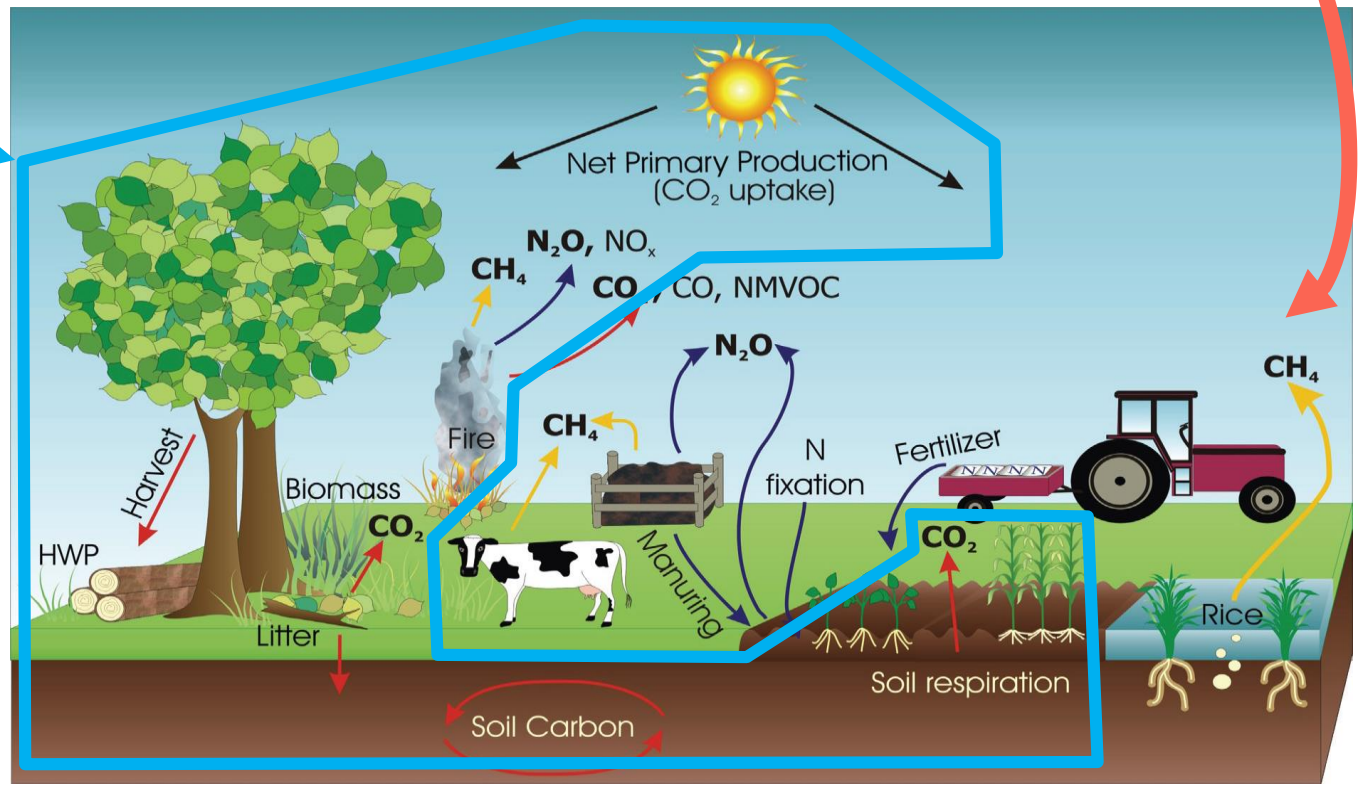
Land Use, Land-Use Change and Forestry (**LULUCF**): *mainly* CO_2

AGRICULTURE: *non-*CO_2 (CH_4, N_2O)

High spatial and temporal variability

High uncertainties

Partly human induced, partly natural



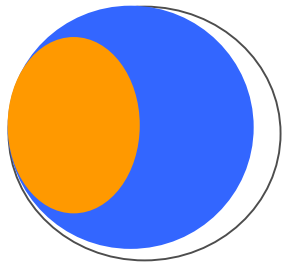
All human-induced

European Commission

2011: land-related reporting and accounting

(slide from 2011)

	UNFCCC	Kyoto Protocol		
	Reporting	**Reporting**	**Accounting 2008-2012**	**Accounting 2013-2020**
AGRICULTURE	CH_4 and N_2O from soils, livestock, manure	= UNFCCC	As other GHG sectors (relative to 1990)	
LULUCF	GHG from 6 **land uses** (all managed lands) FL Forest land CL Cropland (CO2) GL Grassland (CO2) WL Wetland S Settlements O Other	GHG only from direct human induced **activities** AR Aff/Reforestation D Deforestation FM Forest management CM Cropland manag. (CO2) GM Grazing land manag. (CO2) RV Revegetation WDR Wetland drainage and rewetting	Incomplete, complex Mandatory, gross-net → Voluntary, gross-net + cap Voluntary, relative to 1990 (net-net)	More complete, very complex AR and D mandatory, gross-net FM Mandatory, Forest Management Reference Level CM and GM voluntary, relative to 1990 (net-net) WDR voluntary



Total GHG in a country

GHG reported under UNFCCC

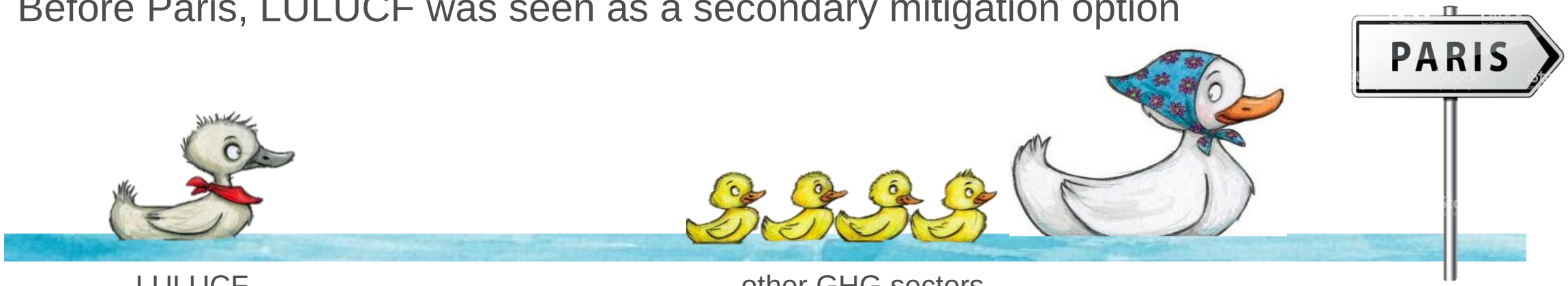
GHG accounted for under KP

2013: mandatory reporting under EU Decision 529/2013

2015: Paris Agreement game changer for LULUCF

(slide from 2016)

Before Paris, LULUCF was seen as a secondary mitigation option



What is missing?

- Credible **accounting,** more comparable to other sectors
- More **confidence** and comparability **in estimates**

→ Commission's proposal for new LULUCF regulation in 2016

2018: LULUCF Regulation 2018/841

(slide from 2018)

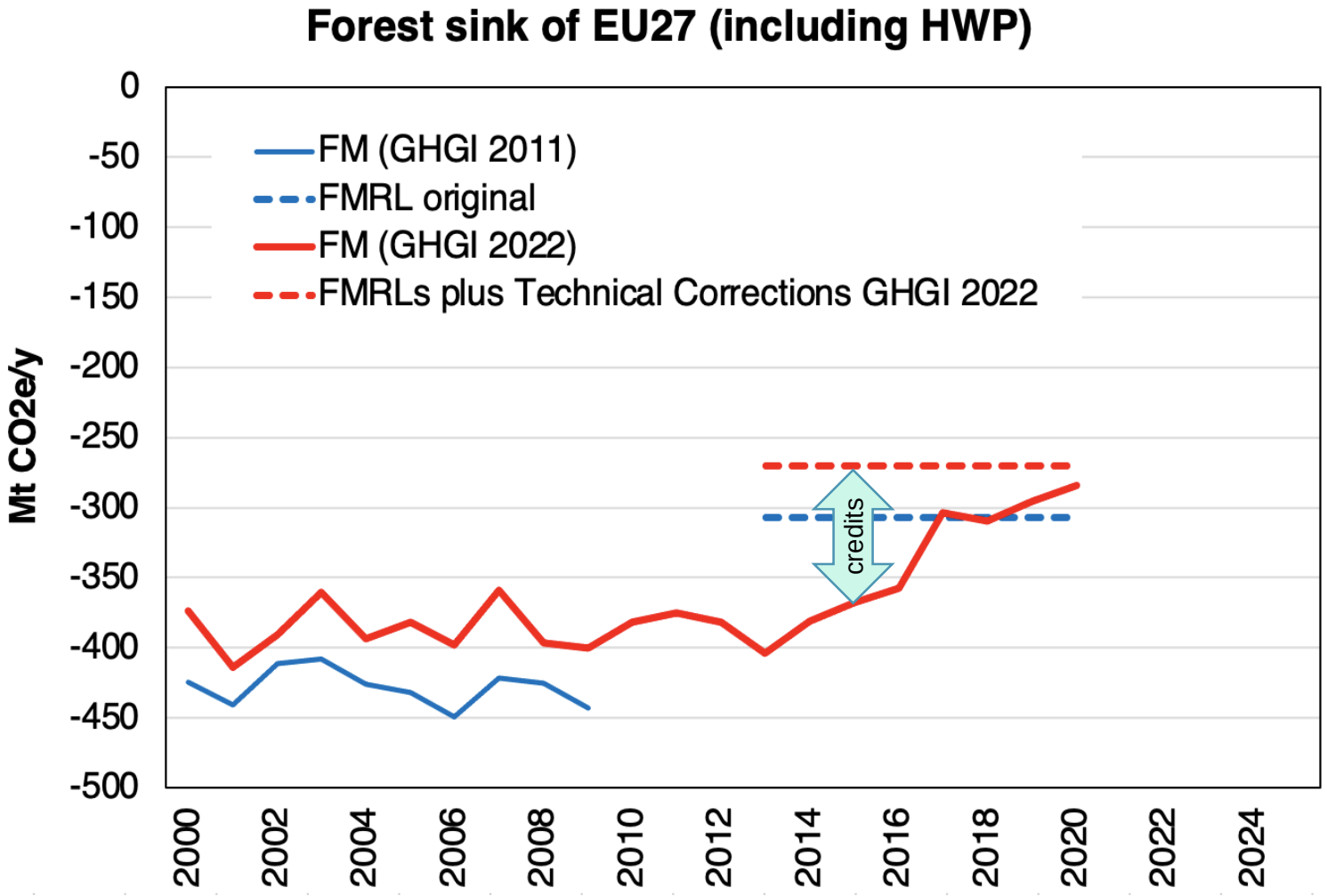
General architecture

- Specific LULUCF commitment (**no-debit rule**)
- Separate pillar with ***flexibility***
- All main land categories accounted: forest, cropland, grassland, wetlands
- Two compliance periods (2021-2025, 2026-2030)

Change of accounting rules

- **Land use categories** only
- Agricultural lands (**cropland** and **grassland**) accounted with "**net-net**" relative to 2005-09.
- **Wetland** will also be accounted from 2026 onward (relative to 2005-2009)
- Forest conversions **(aff./reforestation and deforestation)** accounted with "**gross-net**"
- **Managed forest land** accounted with "**Forest reference levels**" with criteria that changed significantly relative to Kyoto.

Forest Management Reference Levels (Kyoto) *vs.* Forest Reference Levels (Regulation 2018/841)



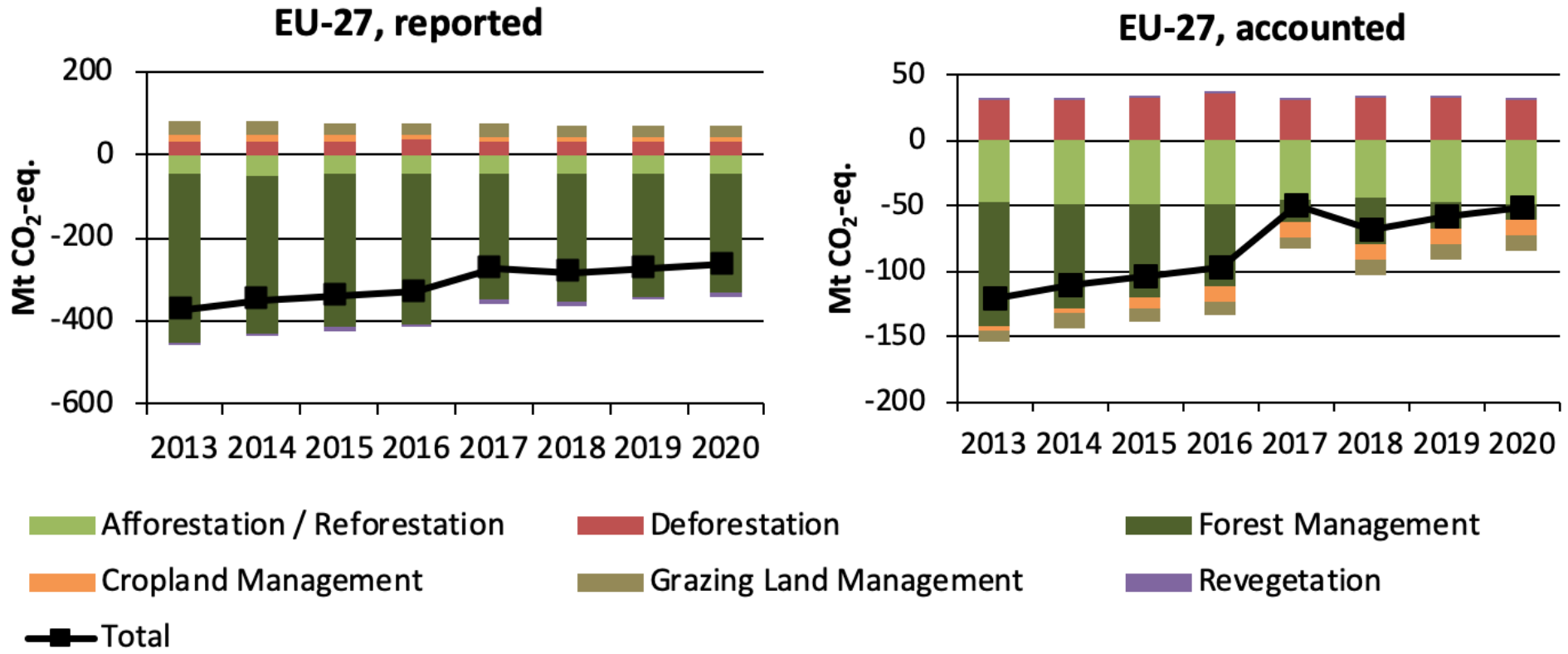
FMRL (2013-2020)

- Complex exercise
- 'Lenient' approaches possible (inclusion of policy assumptions)

FRL (2021-2025)

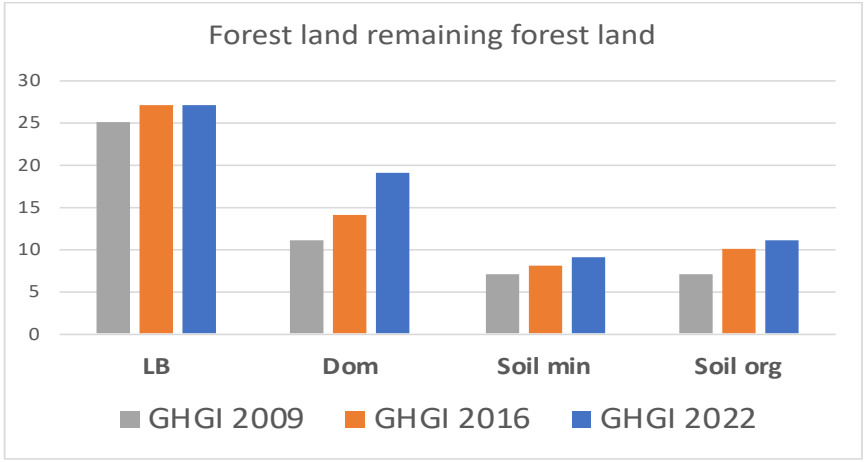
- Complexity remanined
- MS increased modelling skills
- More robust approach (continuation forest management)

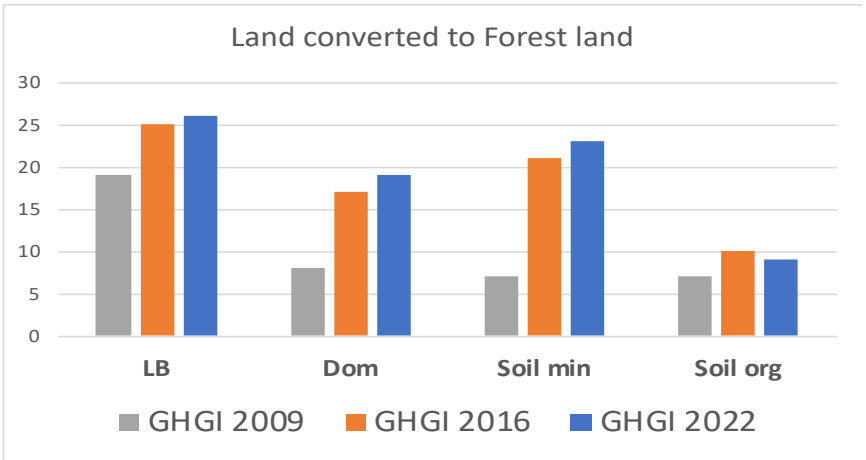
Final reporting & accounting under Kyoto

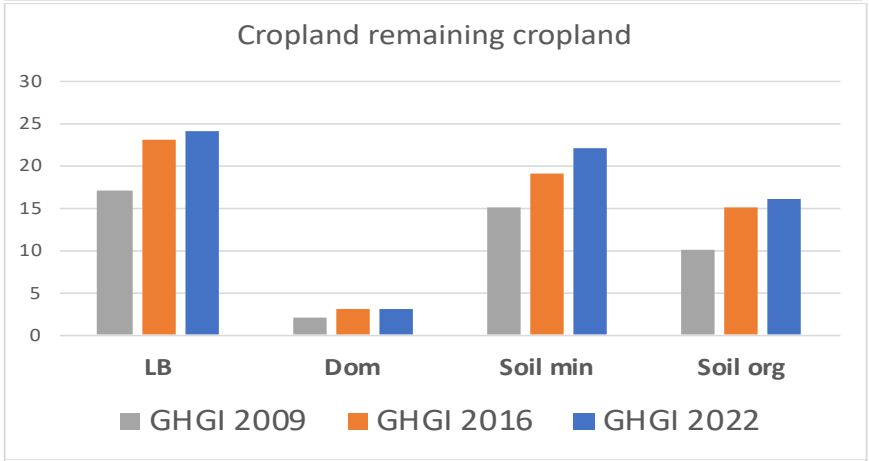


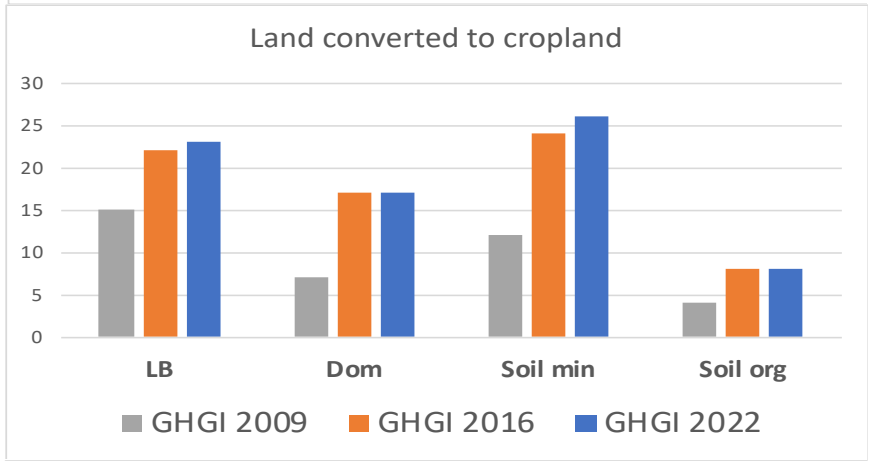
- Dominant activity is Forest Management, followed by afforestation and deforestation. Emissions by CM and GM (not available for all MS) are relatively small.
- Removals by Forest Management show a clear decreasing trend, due to a combination of aging forests, increasing harvest and increasing natural disturbances. Emissions by CM generally decreasing over the 2nd KP period.

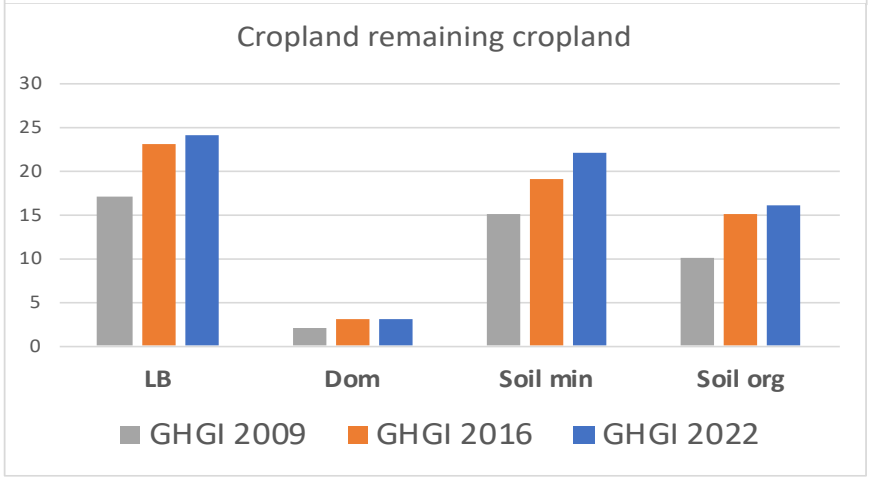
Changes in Completeness

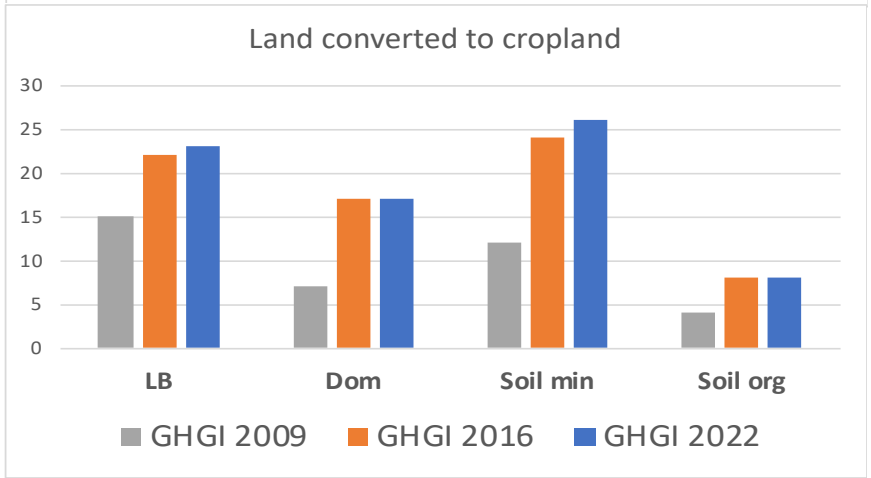




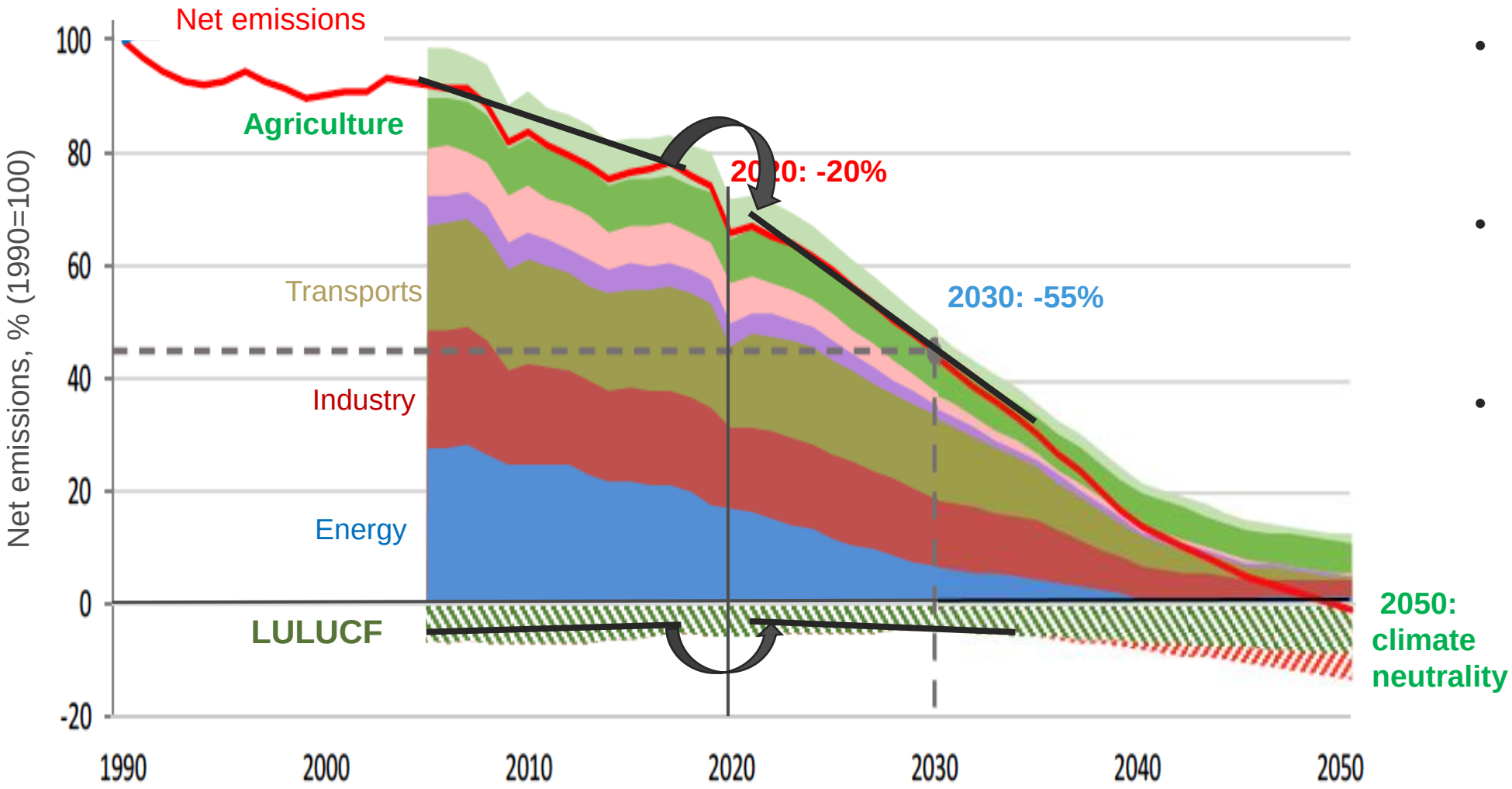








2020: proposed new EU climate targets



- Increased ambition on both emissions and removals
- Importance of LULUCF expected to increase
- To achieve the 2050 target, a revision of all climate legislation was needed

COM(2020) 562: Stepping up Europe's 2030 climate ambition

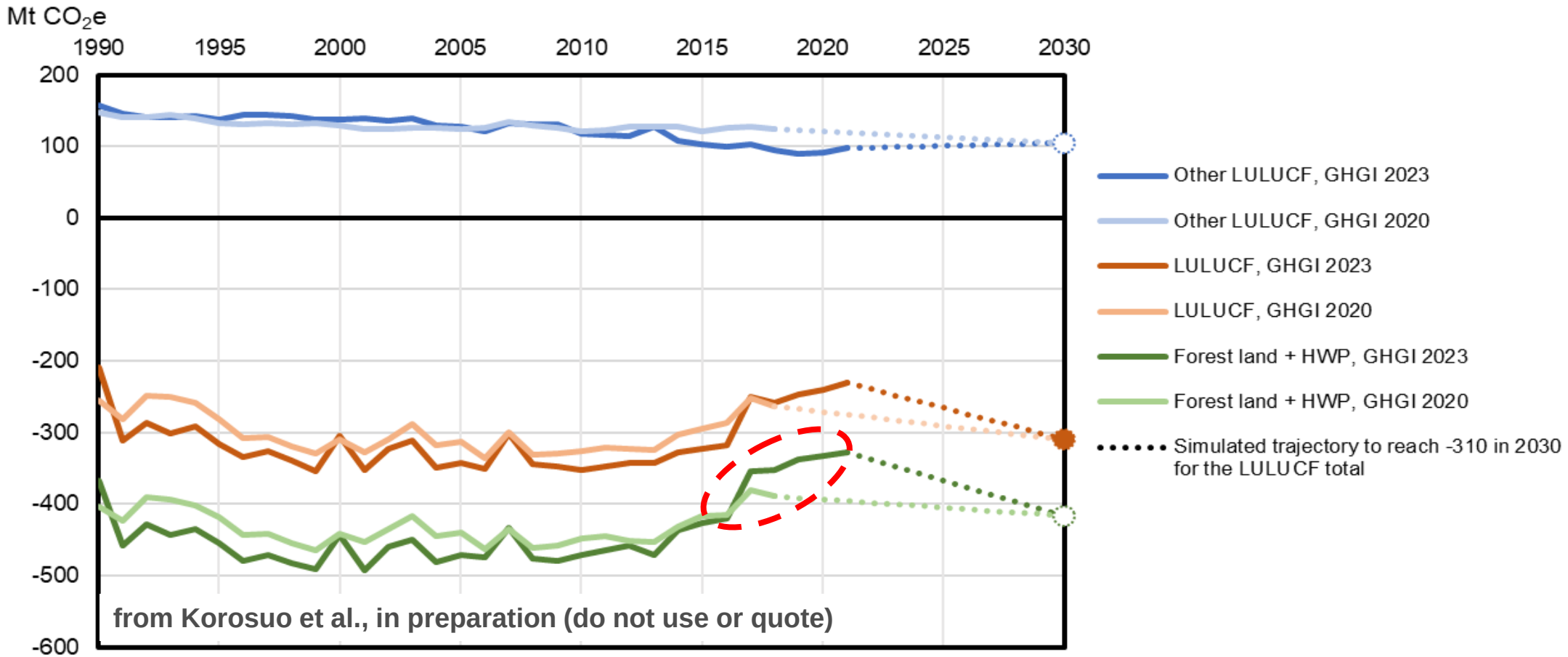
2023: revised LULUCF regulation 2023/839

Stop and reverse the current decline of the sink

State of play	Decreasing trend in LULUCF CO2 removals	Complex accounting rules for LULUCF	Gaps in monitoring
Changes proposed	New ambitious MS targets in 2030 **(-310 MtCO2)**	From 2026, LULUCF like other sectors	Better monitoring (greater use of remote sensing)

New business opportunities through **carbon farming** and carbon storage products

2023: first year of reporting under new LULUCF regulations

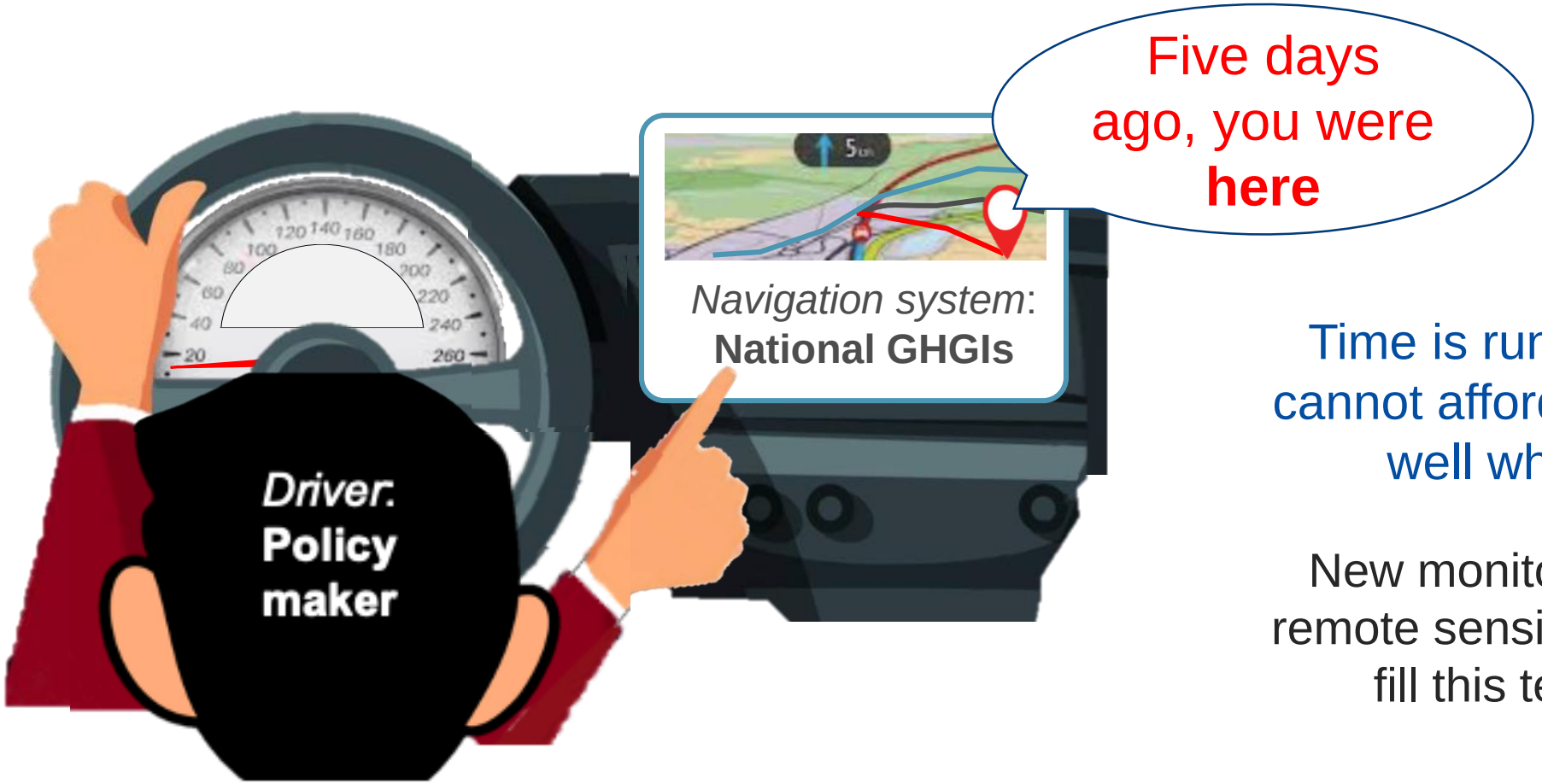


- LULUCF sink going in the wrong direction due to the trend in forest
- **More timely estimates needed!**

While timely estimates are important?

GHGIs are often based on data collected periodically → lag of several years in reporting changes.

This lag is problematic, as it gives delayed feedback on the consequences of forest management

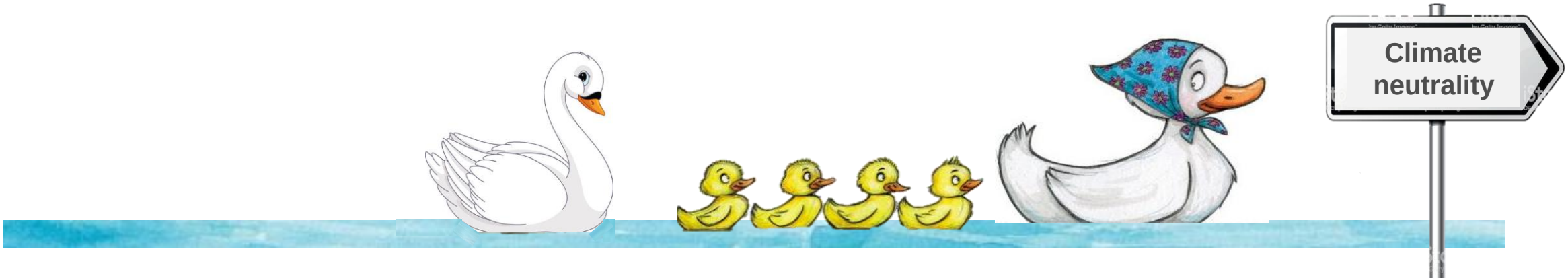


Time is running short, we cannot afford of not knowing well where we are

New monitoring tools (e.g. remote sensing) might help to fill this temporal gap

Conclusions and way forward

Member States have considerably improved the quality of LULUCF reporting
→ **now we are more confident on LULUCF estimates than 10 years ago**
(*thanks to GHGI compilers, UN/EU reviews, EU/national policies, knowledge-sharing initiatives)*



Many MS not fully ready yet for the new requirements under 2018/841 & 2023/839
Greater climate ambitions require greater confidence and monitoring efforts
→ **higher tiers, spatially explicit estimates, timeliness.**

If we don't measure *well*, we don't manage *well*

THANKYOU