

# The European Commission's science and knowledge service

Joint Research Centre



# Overview of the EU 2019 submissions under UNFCCC and KP

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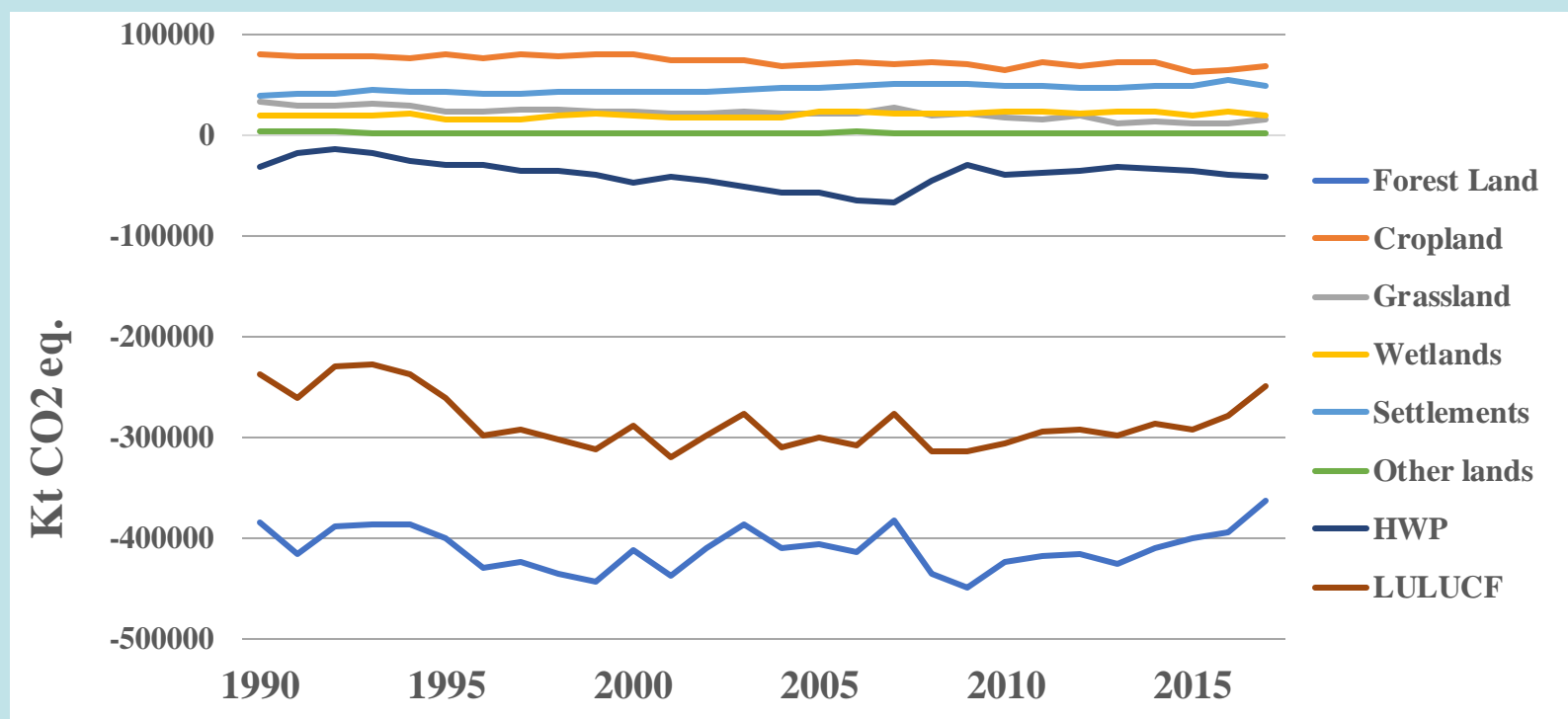
European Commission, Joint Research Centre  
Bioeconomy Unit

**JRC LULUCF technical workshop 2019**

**28<sup>th</sup> May 2019.**

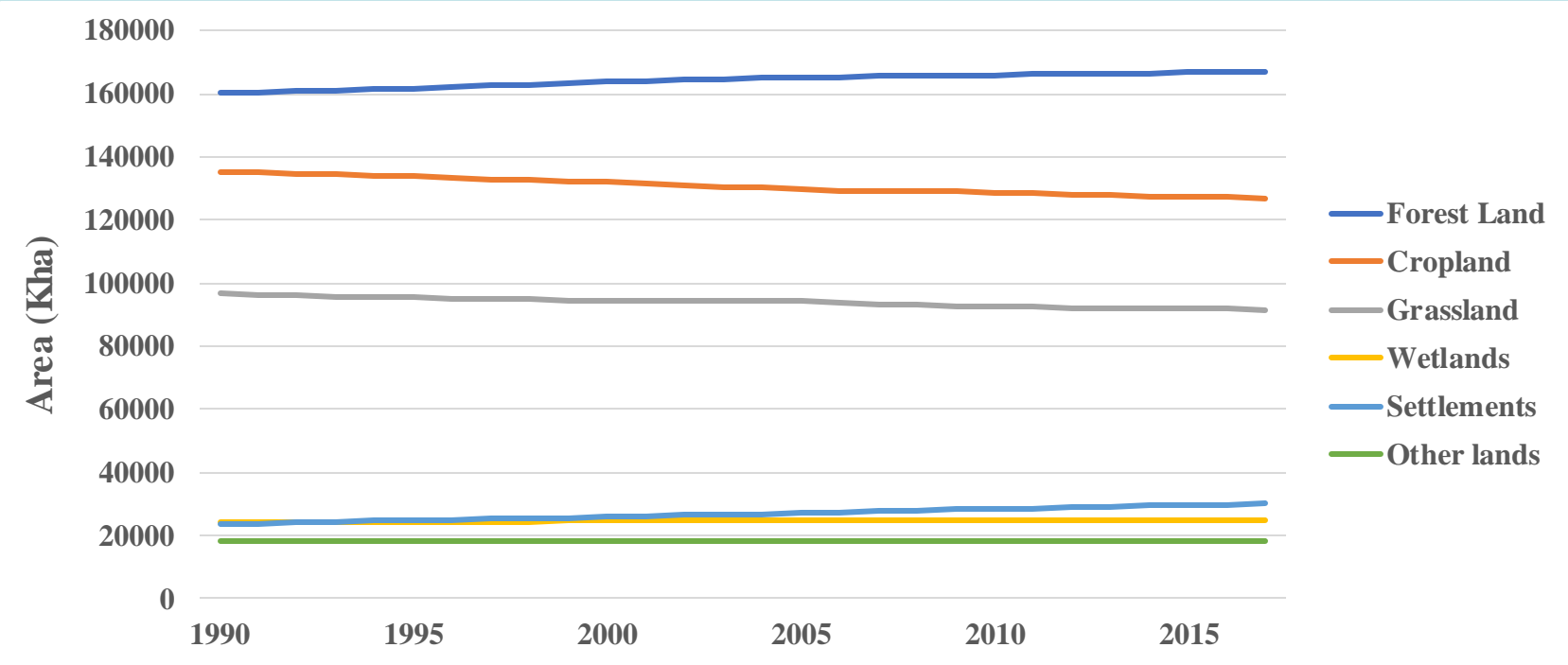
**Varese, Italy**

## Emissions (+) and removals (-) trends: EU28



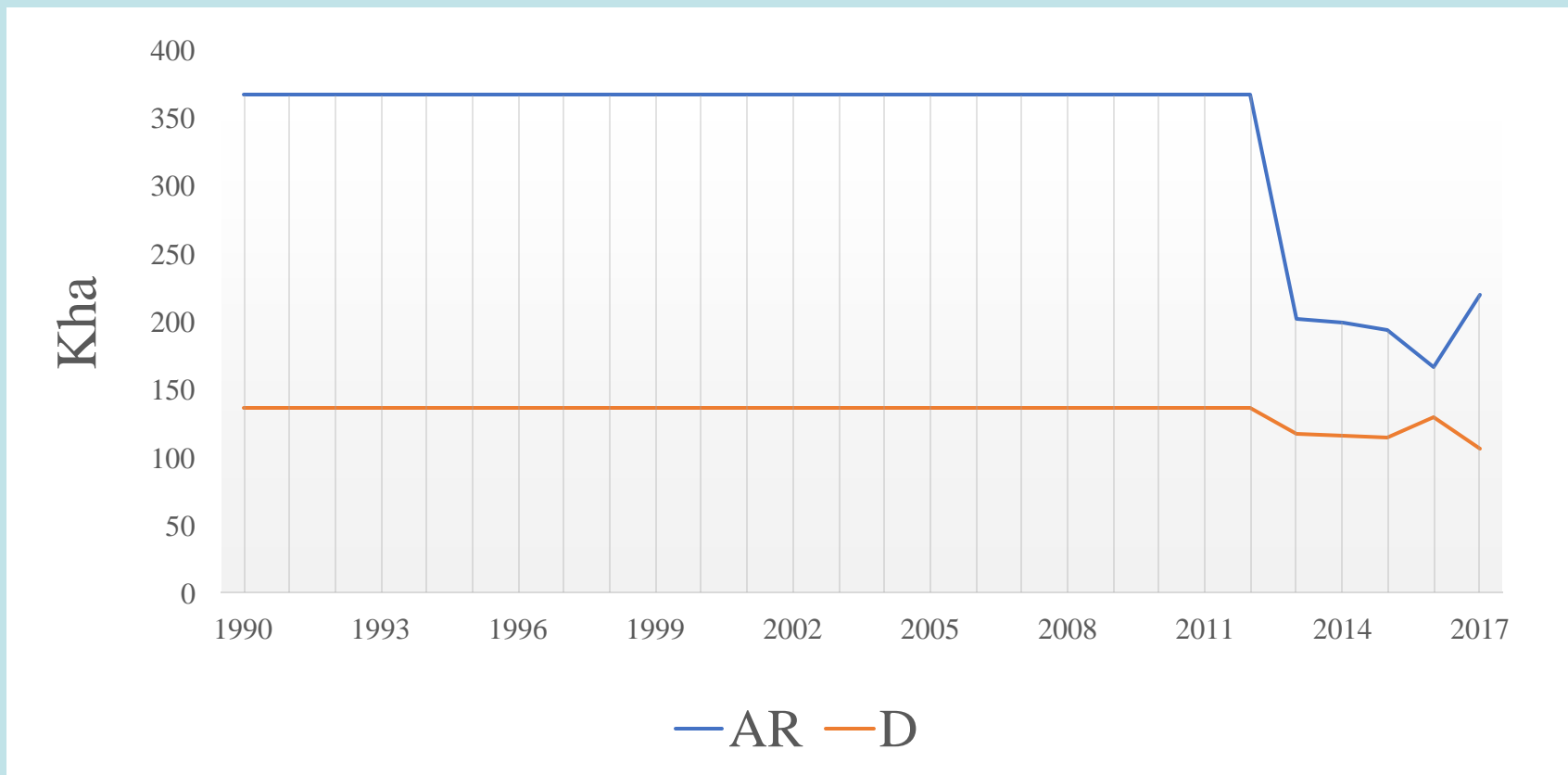
In 2017, the LULUCF sector of the EU+ISL was a net sink of **-250 Mt CO<sub>2</sub>eq**, (+ 5% compared to 1990).

# Area trends: EU28

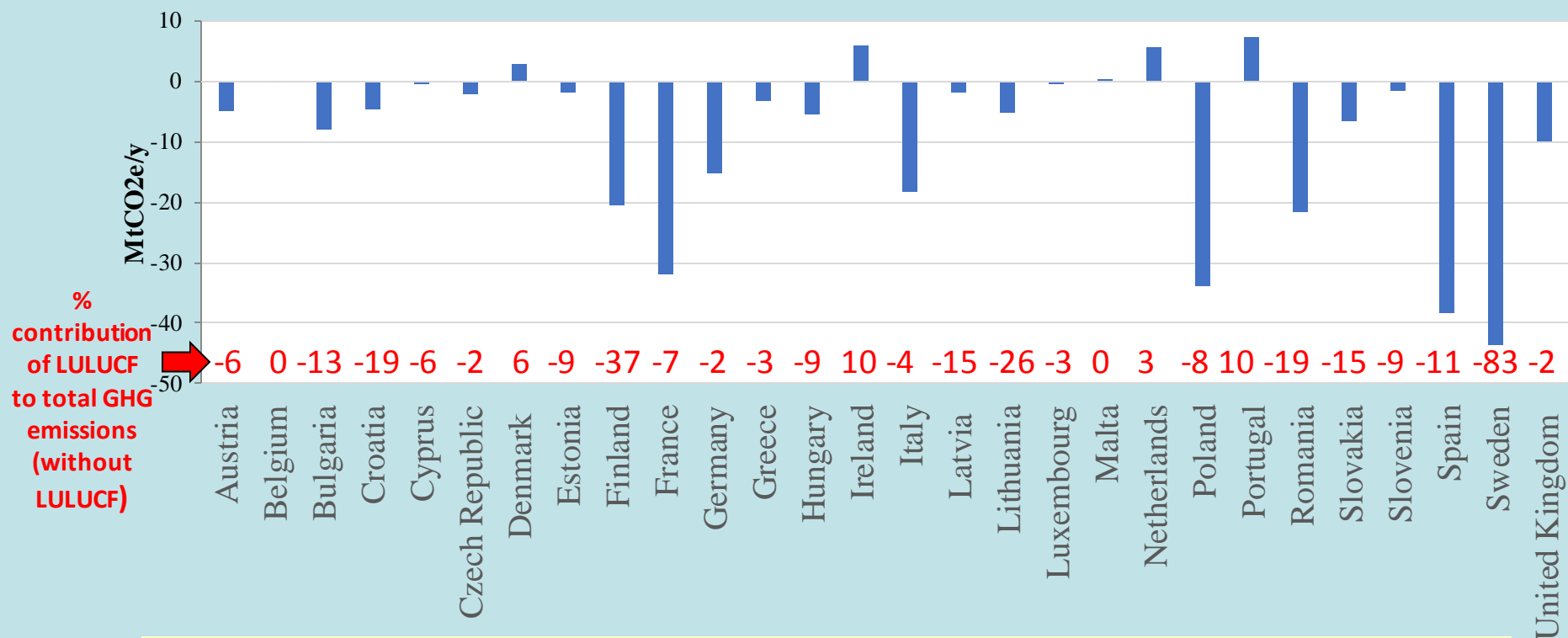


The total reported area of the different land use categories in 2017 by EU+ISL is about 450 Mha.

# Forest conversions: area trends



# Emissions/removals from LULUCF in EU MS (year 2017)



In EU28, LULUCF offsets 7% of total GHGs (Forest offsets 10%)

## The LULUCF “hotspots”

**Land use changes** represent 9% of EU area but account for > 29% of absolute emissions/removals of respective subcategories

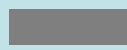
In 2017, the sink from conversions to FL (-42 MtCO<sub>2</sub>/yr) and GL (-22 MtCO<sub>2</sub>/yr) compensated by emissions from conversions to CL (46 MtCO<sub>2</sub>/yr) and SL (45 MtCO<sub>2</sub>/yr).

Area of **organic soils** (18 Mha: 12 in FL, 2 in CL, 4 in GL) represents about 5% of the total area of FL + CL + GL in the EU, but their emissions (92 MtCO<sub>2</sub>/y: 13 in FL, 33 in CL and 46 in GL) account for 33% of net total LULUCF removals.

**Biomass burning:** about 2-13 MtCO<sub>2</sub>e/yr depending on the year (but for 2017, 20.5 MtCO<sub>2</sub>e/yr )

# Completeness of reporting of land uses (UNFCCC)

Land Use	Subcategory	Carbon pool		
		Living biomass	Dead organic matter	SOC mineral
Forest Land	FL-FL	97%	36%	34%
	L-FL	97%	72%	90%
Cropland	CL-CL	93%	10%	79%
	L-CL	90%	55%	90%
Grassland	GL-GL	52%	14%	52%
	L-GL	52%	14%	52%
Wetlands	WL-WL	14%	7%	7%
	L-WL	52%	45%	45%

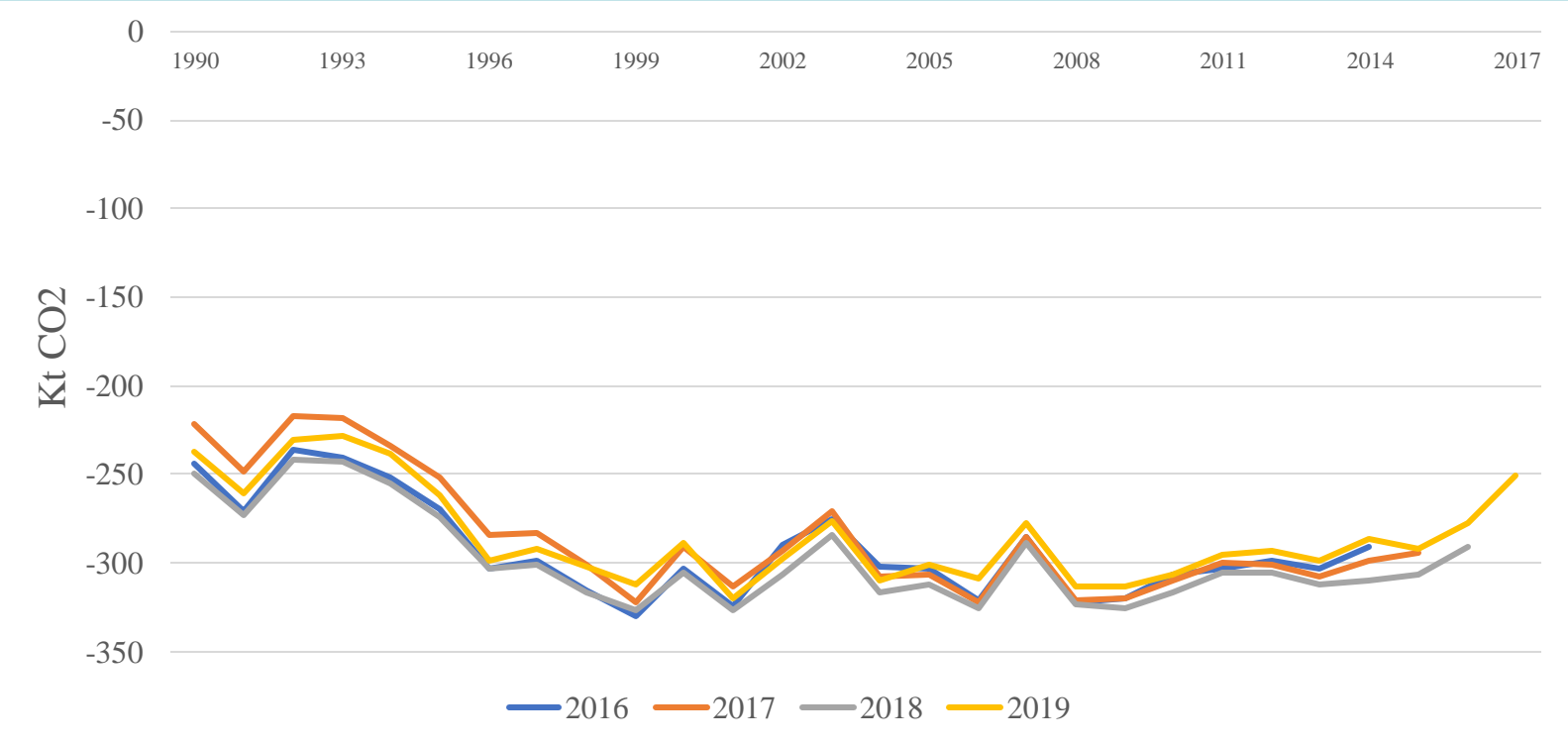
 = estimate not mandatory under tier 1

Completeness: FL > CL > GL > WL

Completeness of land use conversions > land use remaining the same



# Recalculations in LULUCF at EU level



## FMRL value and Technical Correction (TC)

**19 MS** have reported TC so far

**Please remember** to provide information on the rationale for calculating FMRLcorr and the method used in your NIRs !

The FM sink reported by Romania seems **WRONG** for the fourth consecutive year (>4 times greater than FL-FL)

Also the FM Reference Level (FMRL) value is wrong (opposite sign than decision 2.cmp7).

MS	B.1 FM					Value inscribed in the Appendix to the annex to decision 2/CMP.7 (kt CO <sub>2</sub> eq/yr)	Technical correction
	2013	2014	2015	2016	2017		
AUT	-3480	-3672	-3518	-3366	-3864	-6516	5823
BEL	-1276	-1265	-1307	-1316	-1313	-2499	1954
BGR	-7286	-7212	-7185	-7348	-7049	-7950	NA
HRV	-7071	-6968	-6311	-6289	-5536	-6289	905
CYP	-145	-146	-141	-23	-133	-157	NA
CZE	-5620	-5514	-4586	-4387	-1725	-4686	NA
DNM	-2546	-3774	668	678	337	409	-83
EST	-3111	-3319	-3851	-4019	-3090	-2741	NE
FIN	-48130	-47011	-42680	-38776	-39316	-20466	-10939
FRA	-55436	-48070	-50634	-47978	-45876	-67410	21795
DEU	-54368	-54914	-54649	-54454	-55695	-22418	5268
GRC	-1965	-1965	-1954	-1922	-1952	-1830	210
HUN	-2261	-3385	-4347	-3070	-4321	-1000	-40
IRL	-1195	-919	-1159	-1292	-919	-142	-934
ITA	-30170	-31130	-32509	-29302	-14118	-22166	-1680
LVA	-6482	-744	-2567	-3674	-4613	-16302	11703
LTU	-8993	-8033	-5019	-6734	-6344	-4552	-922
LUX	-399	-318	-261	-351	-241	-418	182
MLT	NE,NO	NE,NO	NE,NO	NO,NE	NO,NE	-49	49
NLD	-1070	-1070	-1040	-1054	-990	-1425	NE
POL	-42828	-35592	-31763	-37961	-37839	-27133	NA
PRT	-7365	-8964	-7899	-2104	7829	-6830	3261
ROU	-75536	-80923	-85073	-90773	-88647	-15793	NE
SVK	-6546	-4601	-5153	-4974	-4892	-1084	-1164
SVN	-5167	-4081	-2936	-1512	-725	-3171	NE
ESP	-28227	-29074	-29872	-29450	-29930	-23100	NO
SWE	-46227	-47729	-48153	-49924	-49169	-41336	9340
UK	-19097	-18661	-18247	-17985	-17478	-8268	-9384
EU	-471996	-459051	-452145	-449363	-417610	-315323	35344
ISL	-80	-83	-87	-92	-87	-154	77
EU+ISL	-472076	-459134	-452231	-449455	-417696	-315477	35421

# KP reporting

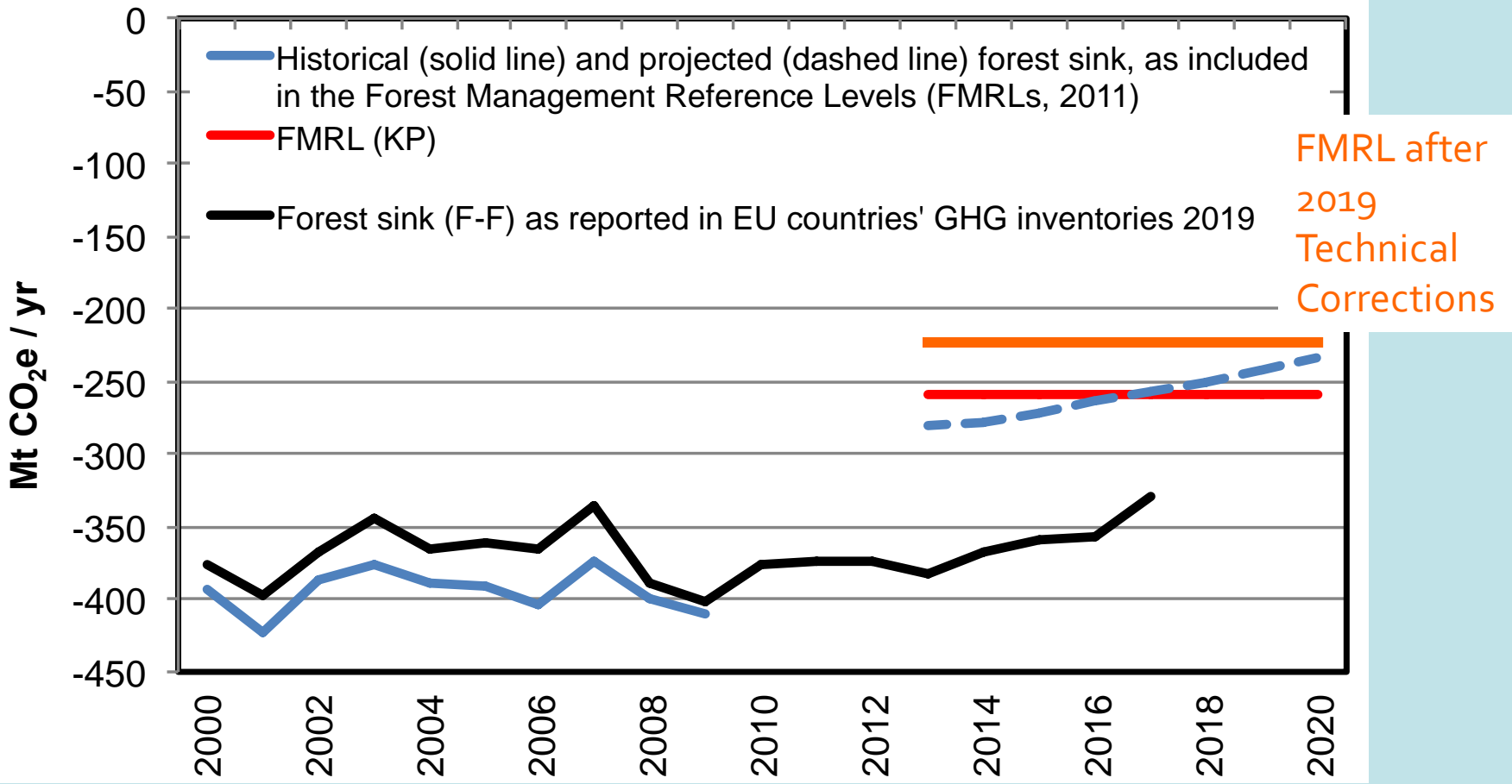
EU28 average accounting quantity 2013-2017, credits (-) or debits (+)

Mt CO <sub>2</sub> e/y	2013-2017
Aff/Reforestation (AR)	-54
Deforestation (D)	+41
Forest Management (FM)* including HWP, Cap and Technical corrections	-87
Cropland Management (CM)	-6
Grazing land Management (GM)	-5
Revegetation (RV)	+0.5

Activities elected by MS:  
**CM:** DK, DE, IE, IT, PT, ES, UK  
**GM:** DK, DE, IE, IT, PT, UK  
**RV:** RO  
**WDR:** UK

\* FM sink is about **-135 MtCO<sub>2</sub>/y** greater than the FMRL (partly due to Romania's values). After the known technical corrections (TC) are applied, the FM sink becomes **-170 MtCO<sub>2</sub>/y** greater than the FMRL. When the CAP is applied (3.5% of 1990 emissions), the FM credits become about **-87 Mt CO<sub>2</sub>/y**

# Forest Management (FM) sink in the EU and FMRL (without HWP)



# NATURAL DISTURBANCES

- **14 MS and Iceland** have stated their intention of excluding emissions resulting from natural disturbances under **AR** during CP2
- **19 MS and Iceland** have stated their intention of excluding emissions resulting from natural disturbances that affect areas subject to **FM** during CP2
- So far, emissions from natural disturbances have not been excluded from the accounting

# Thank You!



Any questions?

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