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**COMMISSION STAFF WORKING DOCUMENT**

**Technical Information**

*Accompanying the document*

**Report from the Commission to the European Parliament and the Council**

**Two years after Paris - Progress towards meeting the EU's climate commitments**

**(required under Article 21 of Regulation (EU) No 525/2013 of the European Parliament and of the Council of 21 May 2013 on a mechanism for monitoring and reporting greenhouse gas emissions and for reporting other information at national and Union level relevant to climate change and repealing Decision No 280/2004/EC)**

{ COM(2017) 646 final }

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## 1. Overview of EU climate targets

Table 1: Overview of climate targets

	International commitments		EU domestic legislation			
	Kyoto Protocol	Paris Agreement	2020 Climate and Energy Package		2030 Climate and Energy Framework	
			EU ETS	Effort Sharing Decision (ESD)	EU ETS (as proposal COM(2015) 337 final)	Effort Sharing Regulation (ESR) (as proposal COM(2016) 482)
Target year of period	Second commitment period (2013-2020) (target for EU-28)	Already in force – covers the period post 2020	2013-2020	2013-2020	2021-2030	2021-2030
Emission reduction target	-20%	at least -40% in 2030	-21% in 2020 compared to 2005 for ETS emissions	Annual targets by MS. In 2020 -10% compared to 2005 for non-ETS emissions	-43% in 2030 compared to 2005 for ETS emissions	Annual targets by MS. In 2030 -30% compared to 2005 for non-ETS emissions
			Overall target: -20% GHG emissions reduction vs 1990"		Overall target: "at least -40% domestic GHG emissions reduction vs 1990"	
Further targets	-	• limiting global warming to well below 2°C.;	✓Renewable Energy Directive: 20% share of renewable energy of gross final energy consumption;		✓At least 27% share of renewable energy in EU energy consumption;	

	International commitments		EU domestic legislation			
	Kyoto Protocol	Paris Agreement	2020 Climate and Energy Package		2030 Climate and Energy Framework	
			EU ETS	Effort Sharing Decision (ESD)	EU ETS (as proposal COM(2015) 337 final)	Effort Sharing Regulation (ESR) (as proposal COM(2016) 482)
			✓Energy Efficiency Directive : Increase energy efficiency by 20 %		✓At least 27% improvement in energy efficiency (to be reviewed by 2020, having in mind an EU level of 30%) <sup>1</sup>	
<b>Base year</b>	1990, but subject to flexibility rules. 1995 or 2000 may be used as its base year for NF3	1990	1990 for overall emission reduction target; 2005 for targets broken down into ETS and non-ETS emissions.		1990 for overall emission reduction target; 2005 for targets broken down into ETS and non-ETS emissions	

<sup>1</sup> On 30 November 2016 the Commission proposed an update to the Energy Efficiency Directive including a new 30% energy efficiency target for 2030. The proposal is under consideration in the Council and the European Parliament.

	International commitments		EU domestic legislation			
	Kyoto Protocol	Paris Agreement	2020 Climate and Energy Package		2030 Climate and Energy Framework	
			EU ETS	Effort Sharing Decision (ESD)	EU ETS (as proposal COM(2015) 337 final)	Effort Sharing Regulation (ESR) (as proposal COM(2016) 482)
<b>LULUCF</b>	Included ARD and forest management, other activities if elected (new accounting rules)	Included	Excluded		Included: July 2016, the Commission launched a proposal for a regulation on the inclusion of GHG emissions and removals from LULUCF into the 2030 climate and energy framework (COM/2016/0479 final) and the rules of its inclusion as of 2021. The proposal includes a "no debit rule", i.e. emissions from LULUCF must be compensated by carbon uptake after specified rules.	
<b>Aviation<sup>2</sup></b>	Domestic aviation included. International aviation not attributed.	Economy-wide action encouraged	EU ETS: Domestic and some international aviation included.	ESD: Aviation generally excluded	EU ETS: Domestic and some international aviation included.	ESR: Aviation generally excluded
<b>Use of international credits</b>	Use of KP flexible mechanisms subject to KP rules	Possible	Upper limit for credit use for period 2008-2020 at a maximum of 50 % of the reduction effort below 2005 levels	Annual use of carbon credits is limited to up to 3 % of each Member State's ESD emissions in 2005 <sup>3</sup>	No	No

<sup>2</sup> May be reviewed in the light of the implementation of ICAO's global measure.

<sup>3</sup> Member States that do not use their 3 % limit for the use of international credits in any specific year can transfer the unused part of their limit to another Member State or bank it for their own use until 2020. Member States fulfilling additional criteria (Austria, Belgium, Cyprus, Denmark, Finland, Ireland, Italy, Luxembourg, Portugal, Slovenia, Spain and Sweden) may use credits from projects in Least Developed Countries (LDCs) and Small Island Developing States (SIDS) up to an additional 1 % of their verified emissions in 2005. These credits are not bankable and transferable. A maximum of approximately 750 Mt of international credits can be used during the period from 2013 to 2020 in the ESD.

	International commitments			EU domestic legislation		
	Kyoto Protocol		Paris Agreement	2020 Climate and Energy Package		2030 Climate and Energy Framework
				EU ETS	Effort Sharing Decision (ESD)	EU ETS (as proposal COM(2015) 337 final)  Effort Sharing Regulation (ESR) (as proposal COM(2016) 482)
<b>Carry-over of units from preceeding periods<sup>4</sup></b>	Subject to KP rules including those agreed in the Doha Amendment		No	EU ETS allowances can be banked into subsequent ETS trading periods since the second trading period	No carry over from previous period	Indefinite validity of allowances not limited to trading periods, no need to carry over.
<b>Gases covered</b>	CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O, HFCs, PFCs, SF <sub>6</sub> , NF <sub>3</sub>		CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O, HFCs, PFCs, SF <sub>6</sub> , NF <sub>3</sub>	CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O, HFCs, PFCs, SF <sub>6</sub>		CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O, HFCs, PFCs, SF <sub>6</sub> , NF <sub>3</sub>
<b>Sectors included</b>	Energy, IPPU, agriculture, waste, LULUCF	Energy, IPPU, agriculture, waste, LULUCF	Energy, IPPU, agriculture, waste, LULUCF	Power & heat generation, energy-intensive industry sectors, aviation	Transport (except aviation), buildings, non-ETS industry, agriculture (except forestry) and waste	Power & heat generation, energy-intensive industry sectors, aviation  Transport (except aviation), buildings, non-ETS industry, agriculture (except forestry) and waste
<b>GWPs used</b>	IPCC SAR	IPCC AR4	IPCC AR4	IPCC AR4		IPCC AR4
<b>Applicable to number of MS</b>	15 (additional KP targets for single MS)	28 and Iceland	28 Member States + possibly Iceland and Norway	28 <sup>5</sup>		28

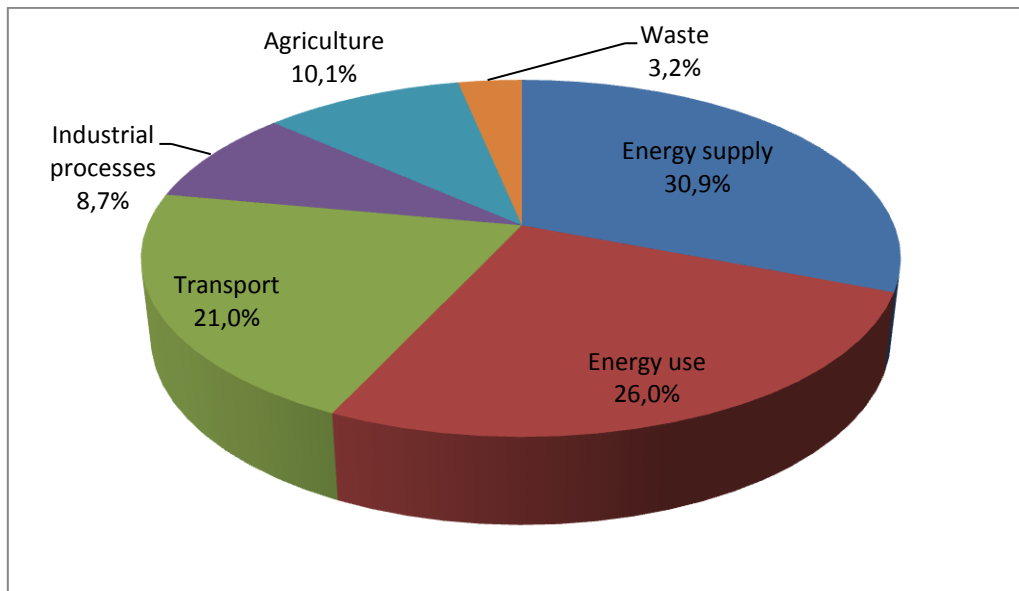
Source: European Commission.

<sup>4</sup> For the CP2 it refers to carry over from CP1. For the ETS it refers to carry-over from previous trading period under the scheme itself.

<sup>5</sup> In addition to the 28 MS, Iceland, Liechtenstein and Norway are also covered under the EU-ETS.

## 2. EU-wide emissions trends and projections

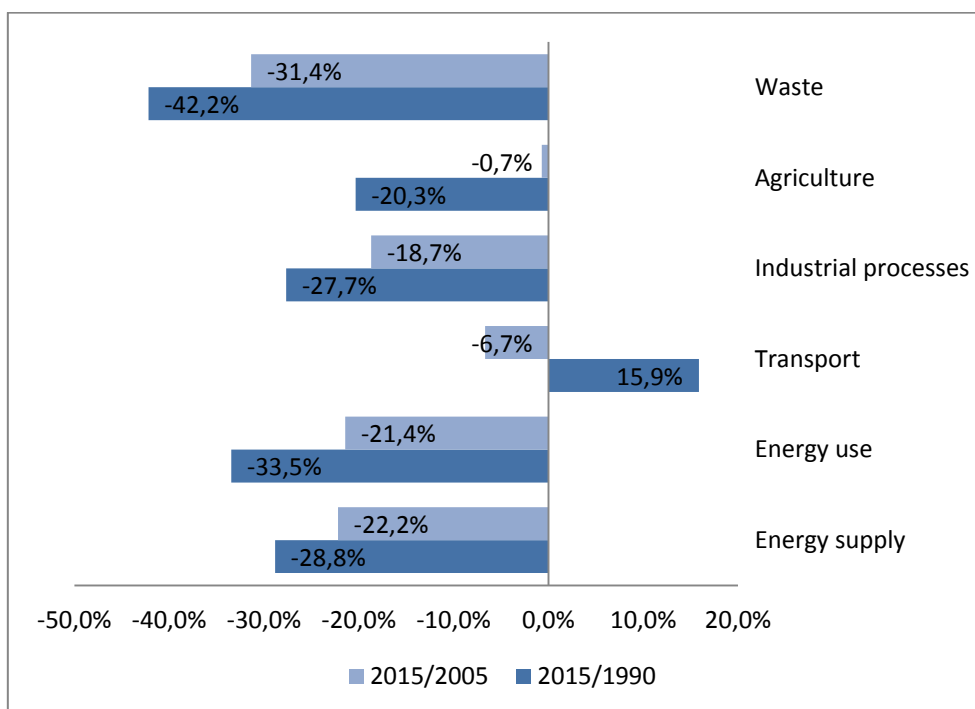
Figure 1: Share of greenhouse gas emissions by sector<sup>6</sup>, EU-28 2015



Source: 2017 EU greenhouse gas inventory (European Environment Agency).

<sup>6</sup> The sectors correspond to IPCC sectors. Energy supply includes IPCC sectors 1.A.1, 1.B, 1.C. Energy use includes IPCC sectors 1.A.2, 1.A.4, 1.A.5, 6. International aviation is not included.

**Figure 2: Historical change in EU-28 greenhouse gas emissions by sector<sup>7</sup>.**

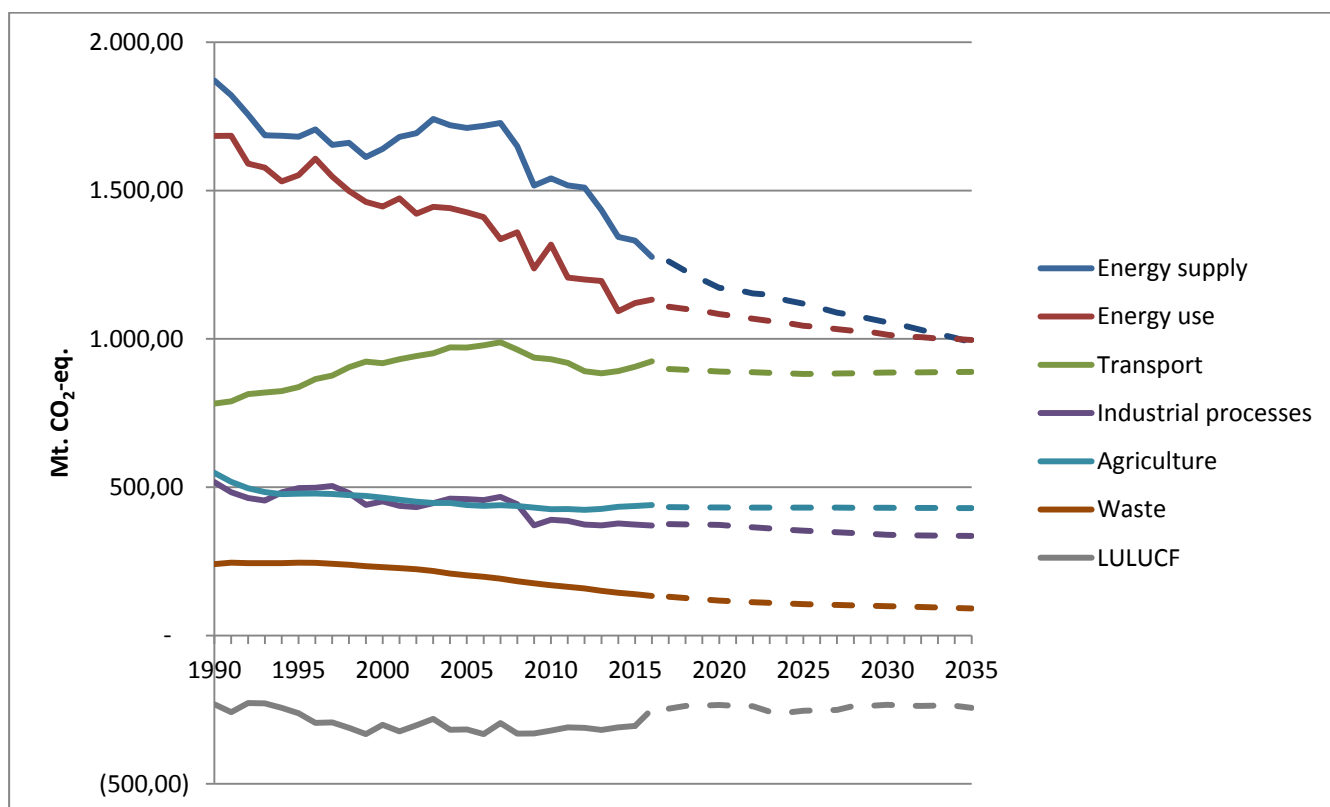


Source: 2017 EU greenhouse gas inventory (European Environment Agency).

<sup>7</sup> The sectors correspond to IPCC sectors. Energy supply includes IPCC sectors 1.A.1, 1.B, 1.C. Energy use includes IPCC sectors 1.A.2, 1.A.4, 1.A.5, 6. International aviation is not included.



**Figure 3: EU-28 GHG emissions per sector<sup>8</sup>: historical data and projections (Mt. CO<sub>2</sub>-eq.).**

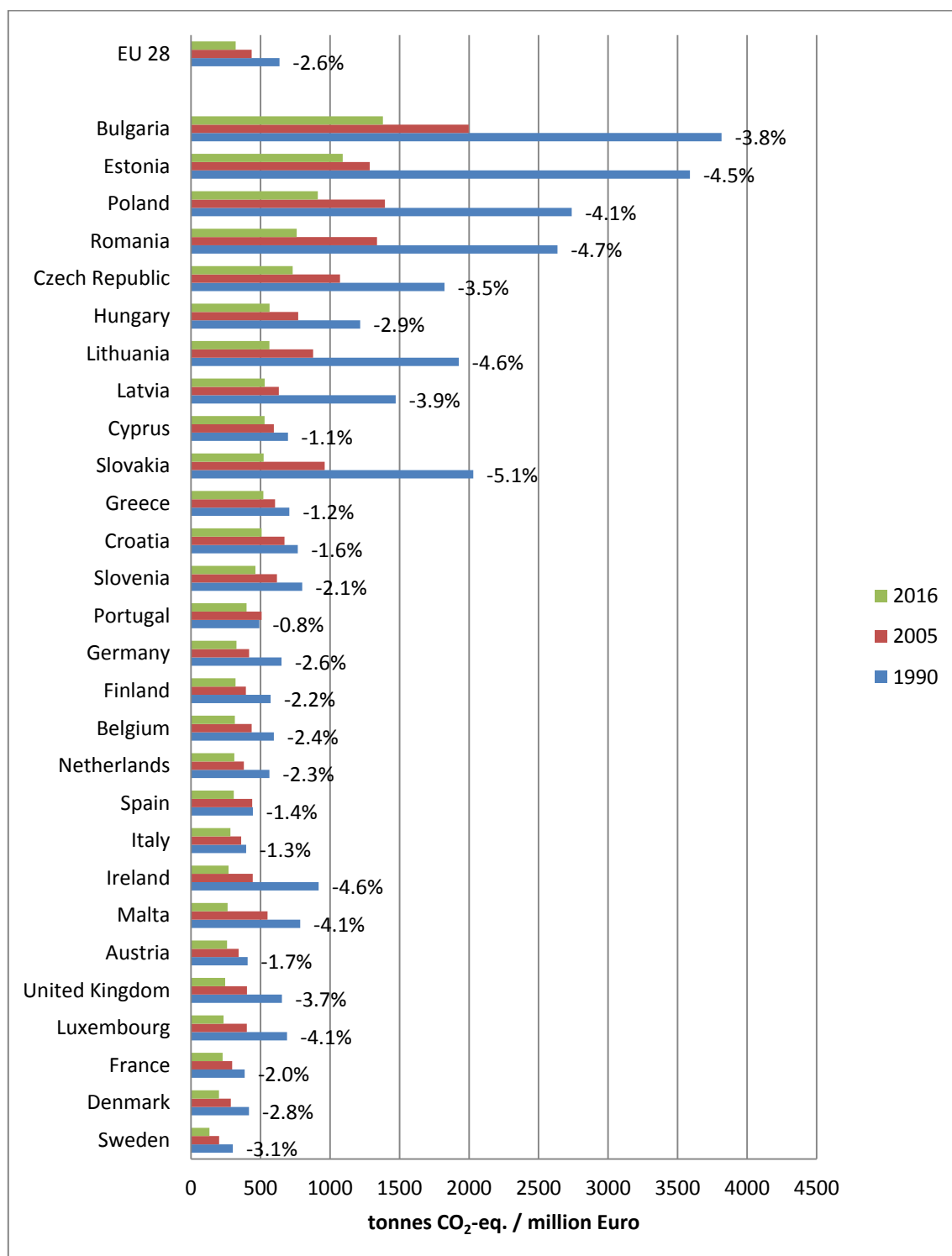


Source: 1990-2015 data based on 2017 EU greenhouse gas inventory (European Environment Agency), 2016 data based on 2017 approximated inventory (European Environment Agency), 2017-2035 data based on Member States' projections<sup>9</sup> reviewed by the European Environment Agency.

<sup>8</sup> The sectors correspond to IPCC sectors. Energy supply includes IPCC sectors 1.A.1, 1.B, 1.C. Energy use includes IPCC sectors 1.A.2, 1.A.4, 1.A.5, 6. International aviation is not included.

<sup>9</sup> The projections are based on scenarios where existing measures are maintained (WEM scenarios).

**Figure 4: GHG emissions intensity in the EU and its Member States 1990, 2005 and 2016 (tonnes CO<sub>2</sub>-eq. per million Euro GDP)<sup>10, 11</sup>.**

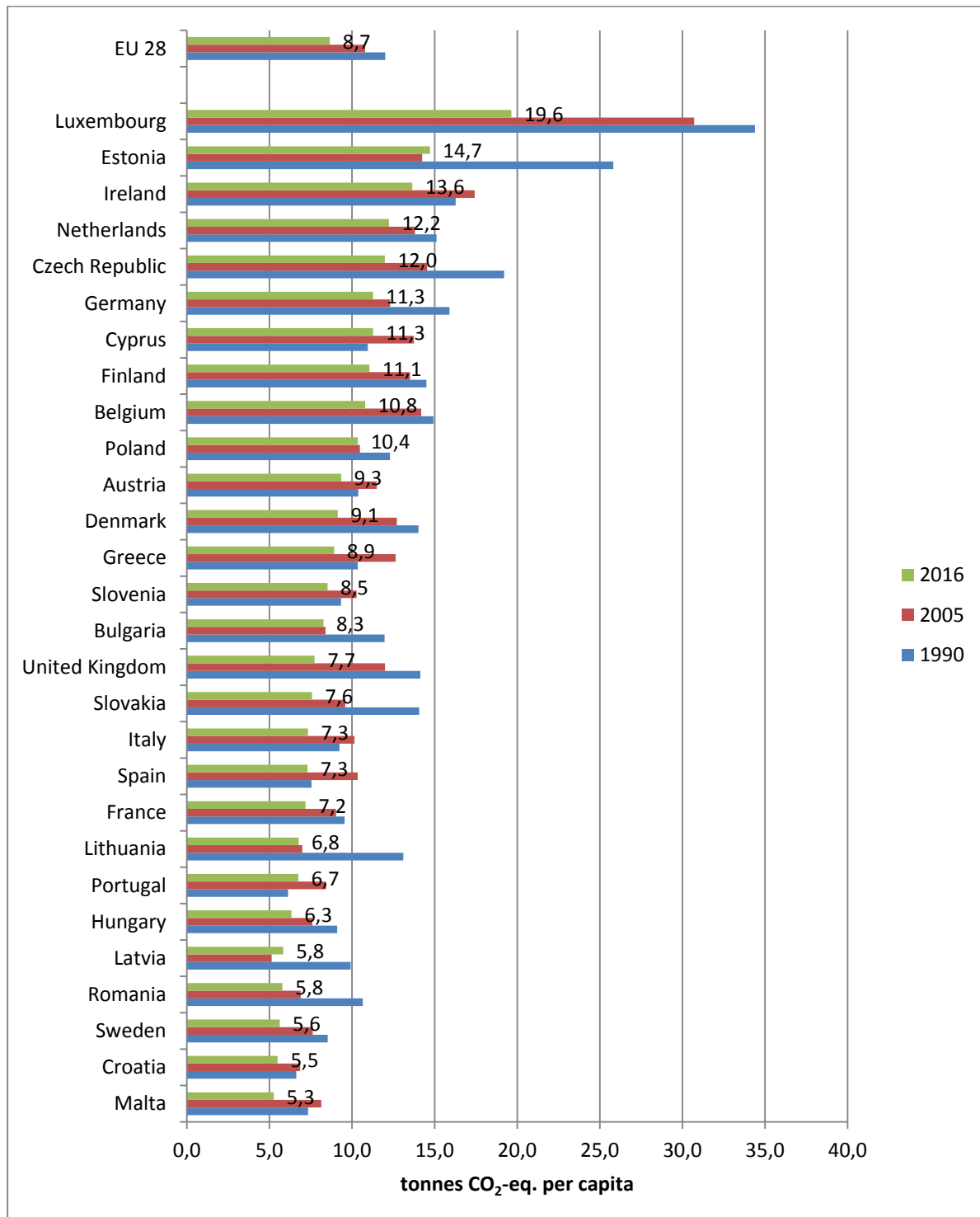


Source: European Environment Agency. For 2016 approximated emissions data are used.

<sup>10</sup> Percentages reflect average annual change in the period 1990-2016.

<sup>11</sup> Emissions data used are national totals (including international aviation).

**Figure 5: GHG emissions per capita in the EU and its Member States, 1990, 2005 and 2016 (tonnes CO<sub>2</sub>-eq. per capita)<sup>12, 13</sup>.**



Source: 1990 and 2005 emissions from inventory data, 2016 emissions from approximated inventory data (European Environment Agency). Population data: Eurostat.

<sup>12</sup> Numbers show tonnes CO<sub>2</sub>-eq. per capita in 2016.

<sup>13</sup> Emissions data used are national totals (including international aviation). Population data used are 'average population – total'.

**Table 2: Emissions covered by the Kyoto Protocol 2nd commitment period (Mt. CO<sub>2</sub>-eq.).<sup>14</sup>**

	1990	2005	2015	2020
Total GHG emissions	5,647	5,214	4,310	
<i>Of which domestic aviation</i>	14	20	15	
Projections as compilation of MS data, WEM scenario				4,068
-20% compared to Kyoto base year				4517 <sup>15</sup>

**Table 3: Emissions covered by the Climate and Energy Package (Mt CO<sub>2</sub>-eq.).**

	1990	2005	2015	2020
Total GHG emissions	5,716	5,345	4,452	
<i>of which domestic aviation</i>	14	20	15	
<i>of which international aviation</i>	69	132	142	
Projections as compilation of MS data, WEM scenario				4,213
-20 % compared to 1990				4,573

<sup>14</sup> Emissions from international aviation is covered by the EU Climate and Energy Package, but not by the obligation under the Kyoto Protocol.

<sup>15</sup> Preliminary numbers.

### 3. EU ETS emissions

Table 4: Verified ETS emissions (Mt CO<sub>2</sub>-equivalents).

Year	2011	2012	2013	2014	2015	2016
Verified total emissions	1904	1867	1908	1814	1803	1750
Change to year x-1	-1.8%	-2%	2.2%	-4.9%	-0.6%	-2.9%
Verified emissions from power sector	1.185	1.181	1.128	1.039	1.031	982
Change to year x-1		-0,3%	-4,4%	-7,9%	-0,8%	-4,8%
Verified emissions from industrial installations	720	686	780	775	772	768
Change to year x-1		-4,6%	13,7%	-0,7%	-0,4%	-0,5%
Real GDP <sup>16</sup> growth rate EU28	1.7%	-0.5%	0.2%	1.7%	2.2%	1.9%

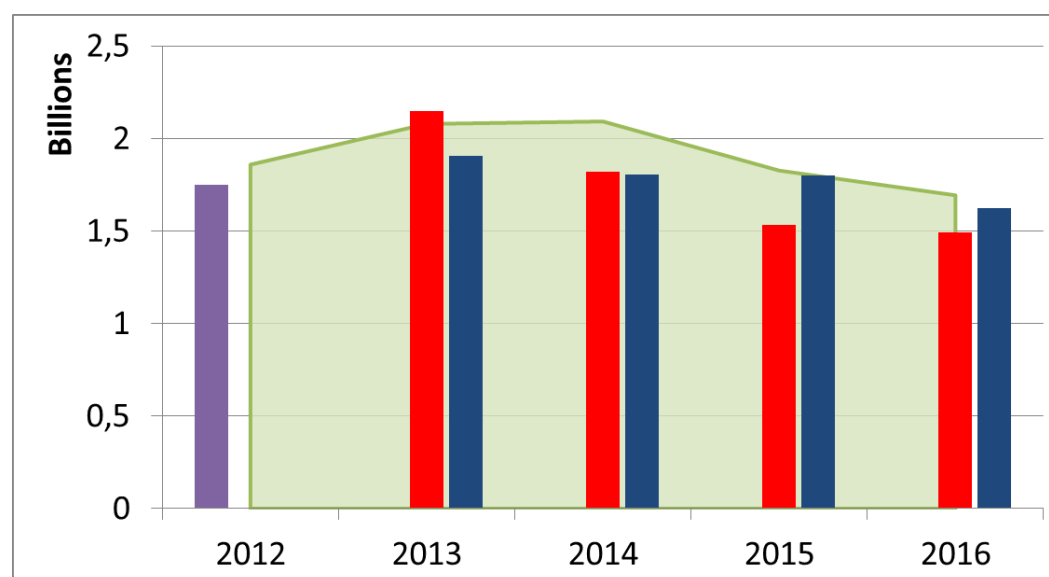


Figure 6: Development in supply and demand of ETS allowances 2013-2016.

demand
supply
banking total from phase 2
surplus

<sup>16</sup> GDP data as reported on:

<http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=tec00115>  
(accessed in July 2017). Verified aviation emissions are reported separately in section 4.

#### 4. Member States' LULUCF accounting quantities

**Table 5: LULUCF accounting quantities (average annual values) estimated by JRC based on Member States' GHG Inventories under KP and under 529/2013.**

Member State	Accounting quantity, average annual values (Mt CO <sub>2</sub> /y), credits (-) and debits (+)									
	Activities under KP								Additional activities under 529/2013	
	Article 3.3		Article 3.4					total under KP		
	AR	D	FM	CM	GM	RV	WDR		CM	GM
Austria	-2.0	0.5	-2.7					-4.2	-0.3	0.1
Belgium	-0.4	1.3	-1.2					-0.3	0.0	0.1
Bulgaria	-1.3	0.1	2.3					1.1		
Croatia	-0.2	0.1	-1.1					-1.3	-0.1	0.0
Cyprus								0.0		
Czech Republic	-0.5	0.2	-1.2					-1.6	-0.1	
Denmark	-0.3	0.1	-2.2	-1.8	0.3			-3.9		
Estonia	-0.2	0.2	-0.4					-0.4	0.0	-0.1
Finland	-0.2	3.4	-2.5					0.7	-0.1	0.0
France	-9.6	11.2	-7.5					-5.9		
Germany	-6.5	2.1	-32.3	1.9	-3.5			-38.3		
Greece	-0.1	0.0	-0.4					-0.5	2.0	0.0
Hungary	-1.2	0.2	-2.0					-3.0		
Ireland	-3.7	0.2	0.3	0.0	-1.2			-4.4		
Italy	-8.3	2.0	-8.7	0.5	-0.7			-15.2		
Latvia	-0.1	1.7	2.7					4.4	-0.3	-0.8
Lithuania	-0.3	0.2	-1.7					-1.8	-1.4	0.0
Luxemburg	-0.2	0.0	-0.2					-0.3	0.0	0.0
Malta								0.0		
Netherlands	-0.8	1.5	0.0					0.7	0.9	-1.4

Member State	Accounting quantity, average annual values (Mt CO <sub>2</sub> /y), credits (-) and debits (+)									
	Activities under KP								Additional activities under 529/2013	
	Article 3.3		Article 3.4					total under KP		
	AR	D	FM	CM	GM	RV	WDR		CM	GM
Poland	-2.8	0.3	-12.1					-14.6	0.8	-0.7
Portugal	-3.5	2.1	-2.1	-3.0	-1.4			-7.9		
Romania	-0.3	8.1	-7.5			-1.2		-1.0	0.5	1.0
Slovakia	-0.4	0.1	-2.6					-3.0	-0.1	0.0
Slovenia		0.5	-0.6					-0.1		
Spain	-12.1	0.6	-2.4	0.0				-14.0		
Sweden	-1.3	3.0	-2.5					-0.9	-0.9	0.1
Un. Kingdom	-0.8	1.3	-3.2	-1.8	1.1			-3.4		
EU	-57.2	41.0	-92.0	-4.1	-5.5	-1.2	0.0	-119.0	0.9	-1.5
Iceland	-0.6	0.0	0.2			-0.6		-1.0		
EU + Iceland	-57.8	41.0	-91.8	-4.1	-5.5	-1.9	0.0	-120.1	0.9	-1.5

AR: Afforestation/Reforestation, D: Deforestation, FM: Forest Management CM: Cropland Management, GM: Grazing land management, RV: Revegetation, WDR: Wetland Drainage and Rewetting.

Numbers express the average annual values based on values reported during 2013-2015. For FM, estimates consider information on technical corrections to Forest Management Reference Levels and the impact of the cap.

AR, D and FM are mandatory activities under the KP. Grey cells indicate the voluntary elected activities.

Under 529/2013, some MS did not report yet complete information on CM and GM. Specifically, information on CM and GM is missing in BG, CY, FR, HU, MT and SI; CZ and ES did not provide information on the base year for GM. Grey cells are already reported under the KP.

## 5. Member States' progress towards Effort Sharing Decision targets

Table 6: Member States' ESD targets and emissions relative to 2005 base year. Relative gap between emissions and targets<sup>17</sup>.

	2015			2016			2020		
Country	2015 ESD target compared to 2005	2015 emissions data compared to 2005	Relative gap 2015 vs. ESD 2015 target	2016 ESD target compared to 2005	2016 proxy emissions data compared to 2005	Relative gap 2016 vs. ESD 2016 target	2020 ESD target compared to 2005	Projected 2020 ESD emissions compared to 2005	Relative gap projected 2020 emissions vs. 2020 ESD targets
Austria	-9%	-13%	-4%	-10%	-12%	-1%	-16%	-14%	2%
Belgium	-6%	-9%	-3%	-8%	-7%	1%	-15%	-12%	3%
Bulgaria	24%	15%	-10%	25%	13%	-13%	20%	-2%	-22%
Croatia	15%	-11%	-25%	16%	-18%	-34%	11%	-12%	-23%
Cyprus	42%	-3%	-45%	42%	0%	-42%	-5%	-14%	-9%
Czech Republic	4%	-1%	-4%	5%	-6%	-11%	9%	0%	-9%
Denmark	-13%	-19%	-6%	-15%	-19%	-4%	-20%	-22%	-2%
Estonia	17%	13%	-4%	17%	8%	-10%	11%	11%	0%
Finland	-9%	-12%	-3%	-11%	-8%	3%	-16%	-15%	1%
France	-3%	-11%	-8%	-5%	-10%	-6%	-14%	-20%	-6%
Germany	-4%	-7%	-3%	-5%	-6%	0%	-14%	-11%	3%
Greece	-5%	-27%	-23%	-4%	-26%	-22%	-4%	-22%	-18%

<sup>17</sup> The relative gap to target is calculated as follows: (emissions year x) – (ESD target year x). Negative values indicate over-delivery while positive values indicate shortfall towards ESD target.



	2015			2016			2020		
Country	2015 ESD target compared to 2005	2015 emissions data compared to 2005	Relative gap 2015 vs. ESD 2015 target	2016 ESD target compared to 2005	2016 proxy emissions data compared to 2005	Relative gap 2016 vs. ESD 2016 target	2020 ESD target compared to 2005	Projected 2020 ESD emissions compared to 2005	Relative gap projected 2020 emissions vs. 2020 ESD targets
Hungary	10%	-14%	-23%	12%	-12%	-24%	10%	-19%	-29%
Ireland	-5%	-9%	-3%	-8%	-5%	2%	-20%	-3%	17%
Italy	-9%	-18%	-9%	-10%	-17%	-7%	-13%	-21%	-8%
Latvia	11%	5%	-5%	12%	4%	-8%	17%	8%	-9%
Lithuania	3%	0%	-3%	6%	-2%	-8%	15%	2%	-13%
Luxembourg	-10%	-15%	-5%	-12%	-16%	-4%	-20%	-17%	3%
Malta	4%	17%	12%	4%	20%	16%	5%	16%	11%
Netherlands	-7%	-21%	-14%	-9%	-20%	-11%	-16%	-26%	-10%
Poland	9%	4%	-5%	10%	7%	-3%	14%	6%	-8%
Portugal	3%	-16%	-19%	3%	-17%	-20%	1%	-17%	-18%
Romania	5%	-1%	-6%	7%	-4%	-11%	19%	1%	-18%
Slovakia	8%	-13%	-20%	9%	-14%	-23%	13%	-12%	-25%
Slovenia	5%	-9%	-14%	5%	-7%	-12%	4%	-9%	-13%
Spain	-5%	-17%	-12%	-6%	-16%	-10%	-10%	-20%	-10%
Sweden	-7%	-22%	-15%	-9%	-22%	-14%	-17%	-32%	-15%
United Kingdom	-16%	-22%	-6%	-17%	-22%	-5%	-16%	-26%	-10%

Source: 2015 emissions from 2017 annual review of inventory data. 2016 emissions from 2017 approximated inventory data. 2020 Member States' projections (with existing measures), quality checked by the European Environment Agency (2017).

**Table 7: Annual emissions allocations, emissions and gap to targets under the Effort Sharing Decision (Mt. CO<sub>2</sub>-eq.)**

		Base year emissions	ESD reviewed						Proxy emissions		Projections (WEM)							
		2005	2013		2014		2015		2016		2017		2018		2019		2020	
Country	Mt CO <sub>2</sub> -eq.	base year emissions	emissions / target	absolute gap to target	emissions / target	absolute gap to target	emissions / target	absolute gap to target	emissions / target	absolute gap to target	emissions / target	absolute gap to target	emissions / target	absolute gap to target	emissions / target	absolute gap to target	emissions / target	absolute gap to target
Austria	emissions	56.8	50.1		48.2		49.3		50.2		49.5		49.4		49.3		49.1	
	target		52.6	-2.5	52.1	-3.9	51.5	-2.2	51.0	-0.8	49.5	0.0	48.9	0.5	48.3	1.0	47.8	1.4
Belgium	emissions	80.3	74.3		70.1		72.7		74.5		71.9		71.7		71.5		71.0	
	target		78.4	-4.1	76.9	-6.8	75.3	-2.6	73.8	0.7	72.5	-0.6	71.1	0.7	69.7	1.8	68.2	2.8
Bulgaria	emissions	22.1	22.2		22.9		25.4		25.0		22.4		22.2		22.0		21.7	
	target		26.9	-4.7	27.2	-4.3	27.5	-2.1	27.7	-2.8	25.9	-3.5	26.1	-3.9	26.3	-4.4	26.5	-4.8
Croatia	emissions	17.4	15.1		14.7		15.6		14.3		15.1		15.2		15.2		15.2	
	target		19.6	-4.5	19.8	-5.1	20.0	-4.4	20.2	-5.9	18.7	-3.6	18.9	-3.7	19.1	-3.9	19.3	-4.1
Cyprus	emissions	4.2	3.9		3.9		4.1		4.2		3.7		3.7		3.6		3.6	
	target		5.9	-2.0	5.9	-2.0	5.9	-1.9	5.9	-1.7	4.2	-0.5	4.1	-0.5	4.0	-0.4	4.0	-0.4
Czech Republic	emissions	61.7	61.5		57.6		61.3		58.1		59.3		60.2		61.1		61.9	
	target		62.5	-1.0	63.2	-5.6	64.0	-2.7	64.7	-6.6	65.2	-5.9	65.9	-5.7	66.5	-5.5	67.2	-5.3
Denmark	emissions	40.1	33.7		32.6		32.5		32.3		32.4		31.8		31.5		31.1	
	target		36.8	-3.1	35.9	-3.3	35.0	-2.5	34.1	-1.8	34.8	-2.4	33.9	-2.1	33.0	-1.5	32.1	-0.9
Estonia	emissions	5.4	5.8		6.1		6.1		5.8		6.0		6.0		6.0		6.0	
	target		6.3	-0.5	6.3	-0.2	6.3	-0.2	6.4	-0.5	5.9	0.1	6.0	0.1	6.0	0.0	6.0	0.0
Finland	emissions	33.9	31.6		30.1		29.9		31.3		29.7		29.4		29.1		28.8	
	target		31.8	-0.2	31.3	-1.1	30.8	-0.9	30.3	1.0	30.2	-0.5	29.6	-0.2	29.1	0.0	28.5	0.3

		Base year emissions	ESD reviewed						Proxy emissions		Projections (WEM)							
		2005	2013		2014		2015		2016		2017		2018		2019		2020	
Country	Mt CO <sub>2</sub> -eq.	base year emissions	emissions / target	absolute gap to target	emissions / target	absolute gap to target	emissions / target	absolute gap to target	emissions / target	absolute gap to target	emissions / target	absolute gap to target	emissions / target	absolute gap to target	emissions / target	absolute gap to target	emissions / target	absolute gap to target
France	emissions	398.2	366.1		353.5		353.0		357.0		339.1		332.1		325.2		318.2	
	target		394.1	-28.0	389.5	-35.9	384.4	-31.4	379.4	-22.4	358.2	-19.1	352.9	-20.8	347.7	-22.5	342.5	-24.3
Germany	emissions	477.8	460.2		436.8		444.1		450.4		441.5		436.3		431.2		426.5	
	target		472.5	-12.3	465.8	-29.0	459.1	-15.1	452.4	-2.0	432.3	9.1	425.2	11.1	418.1	13.1	410.9	15.6
Greece	emissions	62.6	44.2		44.4		45.4		46.5		47.6		48.2		48.7		48.9	
	target		59.0	-14.8	59.3	-14.9	59.6	-14.2	59.9	-13.5	59.1	-11.6	59.4	-11.2	59.7	-11.1	60.0	-11.1
Hungary	emissions	48.0	38.4		38.4		41.4		42.1		40.7		40.0		39.5		39.1	
	target		50.4	-12.0	51.5	-13.1	52.6	-11.2	53.8	-11.6	50.1	-9.3	51.0	-11.0	51.9	-12.4	52.8	-13.7
Ireland	emissions	47.1	42.2		41.7		43.0		44.5		44.6		44.6		45.3		45.6	
	target		46.9	-4.7	45.8	-4.1	44.6	-1.6	43.5	1.0	40.9	3.7	39.8	4.8	38.7	6.5	37.7	8.0
Italy	emissions	334.5	273.3		265.3		273.3		277.5		269.9		267.5		265.1		262.7	
	target		308.2	-34.8	306.2	-40.9	304.2	-31.0	302.3	-24.8	298.3	-28.4	295.8	-28.4	293.4	-28.3	291.0	-28.3
Latvia	emissions	8.5	8.8		9.0		9.0		8.9		9.1		9.1		9.2		9.2	
	target		9.3	-0.5	9.4	-0.3	9.4	-0.4	9.5	-0.7	9.7	-0.7	9.8	-0.7	9.9	-0.7	10.0	-0.8
Lithuania	emissions	13.3	12.4		12.9		13.3		13.0		13.6		13.5		13.6		13.6	
	target		12.9	-0.5	13.3	-0.4	13.7	-0.4	14.0	-1.0	14.1	-0.5	14.5	-1.0	14.9	-1.3	15.2	-1.7
Luxembourg	emissions	10.1	9.4		8.9		8.6		8.5		8.4		8.4		8.4		8.4	
	target		9.5	-0.2	9.3	-0.5	9.1	-0.5	8.9	-0.4	8.7	-0.4	8.5	-0.2	8.3	0.0	8.1	0.3
Malta	emissions	1.1	1.3		1.3		1.3		1.3		1.3		1.3		1.3		1.3	
	target		1.2	0.1	1.2	0.1	1.2	0.1	1.2	0.2	1.2	0.1	1.2	0.1	1.2	0.1	1.2	0.1
Netherlands	emissions	127.8	108.3		97.9		101.1		102.7		98.3		96.9		96.0		94.6	
	target		122.9	-14.7	120.7	-22.8	118.4	-17.3	116.1	-13.5	114.1	-15.7	111.8	-14.9	109.6	-13.6	107.4	-12.8

		Base year emissions	ESD reviewed						Proxy emissions		Projections (WEM)							
		2005	2013		2014		2015		2016		2017		2018		2019		2020	
Country	Mt CO <sub>2</sub> -eq.	base year emissions	emissions / target	absolute gap to target	emissions / target	absolute gap to target	emissions / target	absolute gap to target	emissions / target	absolute gap to target	emissions / target	absolute gap to target	emissions / target	absolute gap to target	emissions / target	absolute gap to target	emissions / target	absolute gap to target
Poland	emissions	180.0	186.1		181.5		186.8		192.8		189.2		189.5		189.8		190.1	
	target		193.6	-7.5	194.9	-13.3	196.1	-9.4	197.4	-4.6	200.0	-10.8	201.7	-12.2	203.4	-13.6	205.2	-15.1
Portugal	emissions	48.6	38.6		38.8		40.6		40.4		41.9		41.4		41.0		40.5	
	target		49.3	-10.7	49.6	-10.8	49.9	-9.2	50.1	-9.7	47.9	-6.0	48.3	-6.9	48.7	-7.7	49.1	-8.6
Romania	emissions	75.5	72.7		72.5		74.6		72.7		75.1		75.6		76.0		76.5	
	target		75.6	-2.9	77.5	-4.9	79.3	-4.7	81.1	-8.4	84.1	-9.0	86.0	-10.4	87.9	-11.8	89.8	-13.3
Slovakia	emissions	23.0	21.1		19.8		20.1		19.7		19.9		20.0		20.1		20.2	
	target		24.0	-2.9	24.4	-4.6	24.7	-4.7	25.1	-5.4	25.0	-5.1	25.3	-5.3	25.6	-5.6	25.9	-5.8
Slovenia	emissions	11.8	10.9		10.5		10.7		11.0		10.7		10.7		10.7		10.7	
	target		12.3	-1.4	12.4	-1.9	12.4	-1.7	12.4	-1.4	12.2	-1.5	12.2	-1.5	12.3	-1.5	12.3	-1.6
Spain	emissions	236.0	200.3		199.8		196.2		197.8		191.4		191.2		190.4		189.1	
	target		227.6	-27.3	225.6	-25.9	223.7	-27.6	221.8	-24.0	218.3	-26.8	216.3	-25.1	214.3	-23.9	212.4	-23.3
Sweden	emissions	43.5	35.3		34.5		33.9		33.7		32.2		31.4		30.5		29.7	
	target		41.7	-6.4	41.0	-6.5	40.4	-6.5	39.8	-6.1	37.8	-5.6	37.2	-5.9	36.7	-6.1	36.1	-6.4
United Kingdom	emissions	417.8	339.5		324.4		326.0		324.4		321.0		316.7		314.4		309.4	
	target		358.7	-19.3	354.2	-29.8	349.7	-23.7	345.2	-20.8	360.4	-39.4	357.2	-40.6	354.1	-39.7	350.9	-41.5

Source: 2013 -2015 ESD emissions from the annual reviews of inventory data. 2016 emissions from approximated inventory data. 2017-2020 Member States projections (with existing measures), quality checked by the European Environment Agency.

## 6. Climate finance to developing countries

**Table 8: Climate finance provided to developing countries (2016).**

EU and Member States	Climate finance (€ million)
Austria	199.26
Belgium	100.92
Bulgaria	
Croatia	
Cyprus	
Czech Republic	7.48
Denmark	172.98
Estonia	0.38
Finland	43.04
France	3 334.84
Germany	8 534.08
Greece	0.23
Hungary	35.29
Ireland	52.70
Italy	242.95
Latvia	0.01
Lithuania	0.54
Luxembourg	129.53
Malta	0.20
Netherlands	471.89
Poland	5.38
Portugal	2.00
Romania	0.78
Slovakia	2.99
Slovenia	2.98
Spain	595.03
Sweden	402.40
United Kingdom	1 163.58
European Commission	2 730.17
European Investment Bank	1 947.72
<b>Total</b>	<b>20 179.32</b>

Source: The figures represent climate finance sources from public budgets and other development financial institutions as reported by Member States under Article 16 of Regulation (EU) No 525/2013 of 21 May 2013. They also include EUR 2.7 billion climate finance from the EU Budget and the European Development Fund, and EUR 1.9 billion from European Investment Bank.