Update of SET-Plan Implementation Plan targets

For Europe to cost-efficiently reach climate-neutrality by 2050 there is a need to support early deployment of, and establish the foundation for, CCS and CCU to become investible technologies during the next ten years. The scale up of CCS and CCS supports the EU transition, enables and supports a just transition for European industry – preserves jobs, stimulates economic growth and diversifies supply chains into new industries – and thus develops Europe as a global leader in the clean, competitive economy of the future.

Specific challenges for CCS and CCU development for the coming years to make this possible are:

- Getting the commercial framework right,
- Accelerating timely deployment at scale of CCS and CCU technologies,
- Driving costs down – through R&I, learning by doing and economies of scale,
- Enabling rapid scale-up to deliver on the climate goals,
- Enabling EU citizens to make informed choices regarding the benefits that CCS and CCU bring.

The CCUS SET-Plan Plenary has endorsed the estimate that 50 Mtpa needs to be abated by CCS in 2030 and the updated Implementation Plan targets below. These updated targets are now pending formal adoption by the SET-Plan secretariat.

	Original target	**Updated target – timeline 2030**
1	At least one commercial scale CCS project linked to an industrial CO_2 source, having completed a FEED study.	**Delivery of 15 commercial-scale CCS projects linked to industrial CO_2 sources. Further 10 projects having completed a FEED study and 5 having made an investment decision.**
2	Delivery of a whole chain CCS project operating in the power sector.	**Delivery of 10 commercial-scale CCS projects for clean, flexible power and heat generation (including waste-to-energy plants), complementary to increased renewable energy generation in the energy mix.**
3	SET-Plan countries having completed, if appropriate in regional cooperation with other MS, feasibility studies on applying CCS to a set of clusters of major industrial and other CO_2 sources by 2025-2030, if applicable involving cooperation across borders for transporting and storing CO_2 (at least 5 clusters in different regions of the EU).	**EU member states and external SET-Plan countries having completed national and regional CCS roadmaps for the development of dedicated CO_2 transport infrastructure (new, retrofitted, and repurposed), including clusters of CO_2 sources and shared, cross-border CO_2 infrastructure. The infrastructure being included in the European Ten-Year Network Development Plan (TYNDP).**
4	At least 1 active EU Project of Common Interest (PCI) for CO_2 transport infrastructure,	**At least 10 additional EU Projects of Common Interest (PCI) for CO_2 transport infrastructure, with a focus on**

	for example related to storage in the North Sea.	**Central, Eastern, and Southern Europe. Experience from the first full-scale CCS project should be taken into account in the SET-Plan activities linked to targets 3 and 4.**
5	An up-to-date and detailed inventory of the most suitable and cost-effective geological storage capacity (based on agreed methodology), identified and accepted by various national authorities in Europe.	**No change**
6	At least 3 pilots on promising new capture technologies, and at least one to test the potential of sustainable Bio-CCS at TRL 6-7 study.	**At least 3 pilots of capture technologies at TRL 7-8 in different industrial applications, including one enabling low-emission hydrogen production. At least 6 pilots of capture technologies at TRL 5-6, of which at least 2 pilots to test climate positive solutions such as Bio-CCS and direct air capture (DAC).**
7	At least 3 new CO_2 storage pilots in preparation or operating in different settings.	**An interim target of at least 6 new CO_2 storage sites in preparation or operating in different settings (i.e. obtained or ready to submit an application for a storage permit). A target by 2030 of a further 9 sites to be appraised to the same level, in a range of geological settings, both onshore and offshore.**
8	At least 3 new pilots on promising new technologies for the production of fuels, value added chemicals and/or other products from captured CO_2.	**By 2030, several demonstration installations producing CO_2-based fuels, chemicals and materials at the scale of tens of kt/a and contributing to EU 2030 and 2050 climate and circularity objectives.**
9	Setup of 1 Important Project of Common European interest (IPCEI) for demonstration of different aspects of industrial CCU, possibly in the form of Industrial Symbiosis.	**By 2030, first large-scale commercial installations enabled by a supportive regulatory framework and risk-sharing financial measures at national and EU level including IPCEIs in the context of new industrial alliances mentioned in the New Industrial Strategy for Europe.**
10	By 2020, Member States having delivered as part of the Energy Union Governance their integrated national energy and climate plans for after 2020, and having identified the needs to modernise their energy system including, if applicable, the need to apply CCS to fossil fuel power plants and/or energy and carbon intensive industries in order to make their energy systems compatible with the 2050 long-term emission targets.	**All European countries having identified, if applicable, the need for CCS/CCU as part of their strategy (producing a national CCS roadmap) for their transition towards net-zero by 2050 (included in their National Energy and Climate Plans).**