

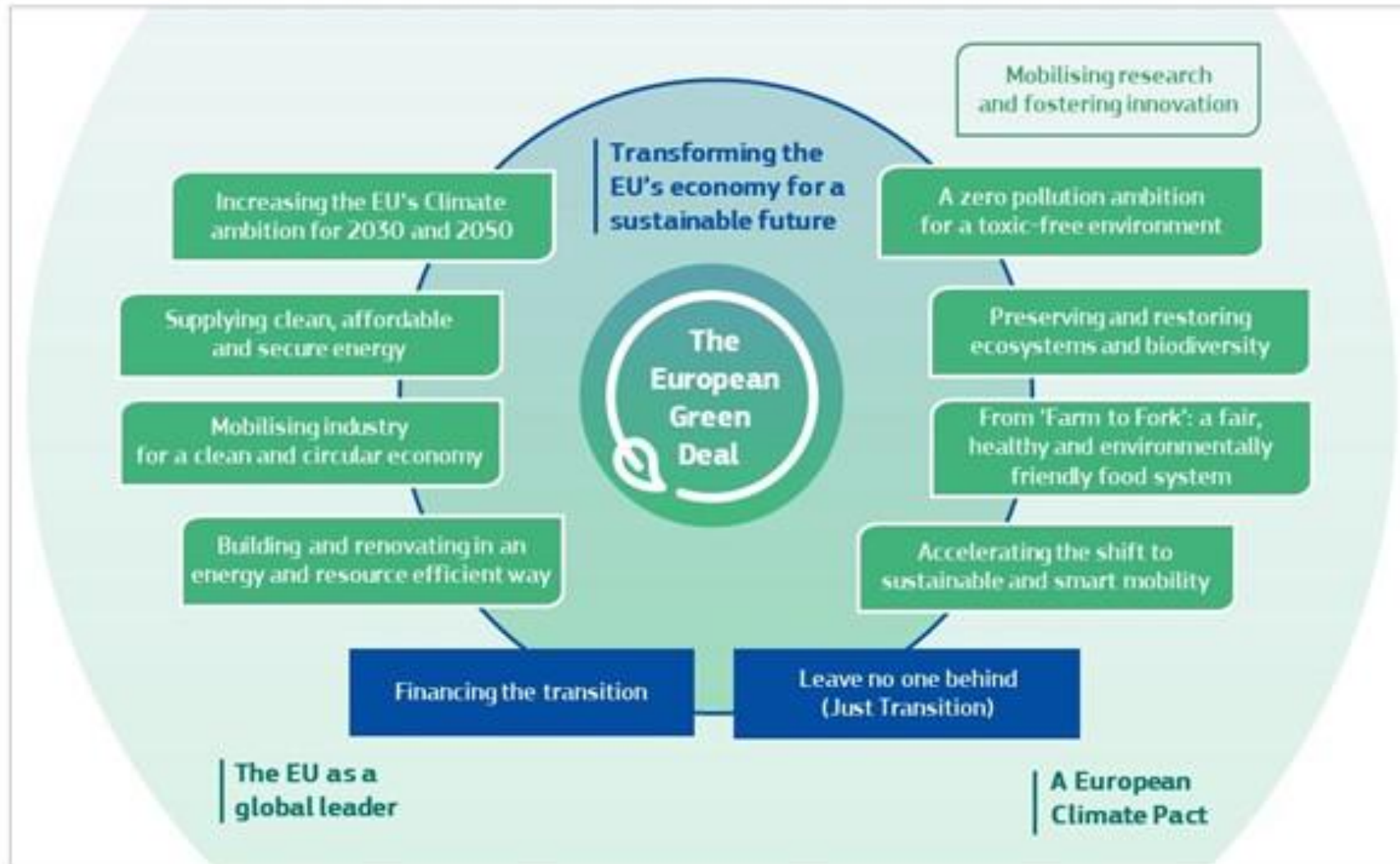
Synergies and conflicts within the European Green Deal

A peatland case study

3 September 2026

Matilde Meertens

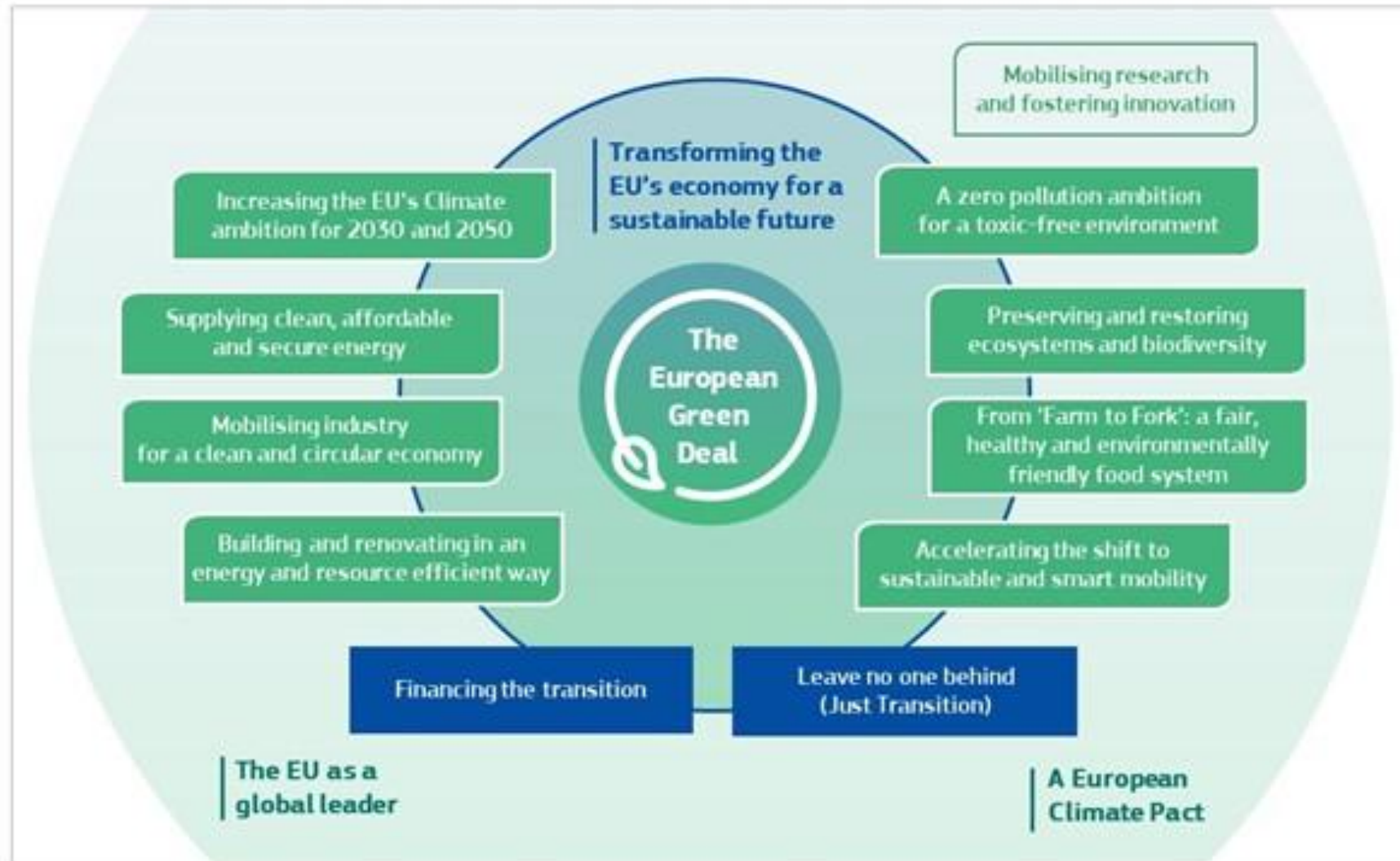




Von der Leyen I (2019-2024)



Von der Leyen II (2024-2029)



LULUCF Regulation

climate

Common Agricultural
Policy

biodiversity

agriculture

Nature Restoration
Regulation





I. Climate

LULUCF Regulation

- “Land use, land use change and forestry”
- European Climate Law
 - Fit for 55 package
 - Not only reducing emissions, but also emission *removals*
- Two phases
 - Phase I: 2021-2025 => no debit rule
 - Phase II: 2026-2030 => -310 Mt CO₂eq
- National Energy and Climate Plans
 - European Commission 2024: insufficient progress
 - Gap of about 45–60 Mt CO₂eq

LULUCF Regulation

- Slow start for wetlands
 - First phase: option to exclude wetlands from accounting
 - Wetlands: overall source of emissions (European Environment Agency 2023)
- Implementation challenges
 - No direct obligations for private actors >< Binding emission removals target at the national level
 - Climate test?
 - National repository?



II. Biodiversity

Nature Restoration Regulation

- **Article 4:** terrestrial, freshwater and coastal ecosystems
- **Article 11:** agricultural ecosystems

NEWS > DEFENSE

From Kyiv to the Suwałki Gap, bogs return as Europe's defensive shield

Restoring the EU's drained bogs would stop both Russian tanks and planet-warming pollution.

▶ LISTEN

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ANNEX I

TERRESTRIAL, COASTAL AND FRESHWATER ECOSYSTEMS – HABITAT TYPES AND GROUPS
OF HABITAT TYPES REFERRED TO IN ARTICLE 4(1) AND (4)

The list below includes all terrestrial, coastal and freshwater habitat types listed in Annex I to Directive 92/43/EEC referred to in Article 4(1) and (4), as well as six groups of those habitat types, namely 1) wetlands (coastal and inland), 2) grasslands and other pastoral habitats, 3) river, lake, alluvial and riparian habitats, 4) forests, 5) steppe, heath and scrub habitats and 6) rocky and dune habitats.

1. GROUP 1: Wetlands (coastal & inland)

Habitat type code as referred to in Annex I to Directive 92/43/EEC	Habitat type name as referred to in Annex I to Directive 92/43/EEC
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Coastal and salt habitats

1130	Estuaries
1140	Mudflats and sandflats not covered by seawater at low tide
1150	Coastal lagoons
1310	<i>Salicornia</i> and other annuals colonizing mud and sand
1320	<i>Spartina</i> swards (<i>Spartinion maritimae</i>)
1330	Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>)
1340	Inland salt meadows
1410	Mediterranean salt meadows (<i>Juncetalia maritimi</i>)
1420	Mediterranean and thermo-Atlantic halophilous scrubs (<i>Sarcocornetea fruticosi</i>)
1530	Pannonic salt steppes and salt marshes

Wet heaths and peat grassland

4010	Northern Atlantic wet heaths with <i>Erica tetralix</i>
4020	Temperate Atlantic wet heaths with <i>Erica ciliaris</i> and <i>Erica tetralix</i>
6460	Peat grasslands of Troodos
Mires, bogs and fens	
7110	Active raised bogs

12/93

ELI: <http://data.europa.eu/eli/reg/2024/1991/oj>

Habitat type code as referred to in Annex I to Directive 92/43/EEC	Habitat type name as referred to in Annex I to Directive 92/43/EEC
7120	Degraded raised bogs still capable of natural regeneration
7130	Blanket bogs
7140	Transition mires and quaking bogs
7150	Depressions on peat substrates of the <i>Rhynchosporion</i>
7160	Fennoscandian mineral-rich springs and springfens
7210	Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davallianae</i>
7220	Petrifying springs with tufa formation (<i>Cratoneurion</i>)
7230	Alkaline fens

Nature Restoration Regulation

- Very common and widespread habitats
 - Occurs in ≥ 3 biogeographical regions
AND range exceeds 10,000 km²
 - Cover more than 3% of the territory of the Member State
- **Ireland** (blanket bogs (5,4%)), **Sweden** (transition mires and quaking bogs (6%) and bog woodland (5%)) and **Finland** (bog woodland (6,4%))

Nature Restoration Regulation

- Habitats of species (Annexes II, IV and V of the HD, BD)
- Improved connectivity
- Continuous improvement
- Best available knowledge and the latest scientific evidence

Nature Restoration Regulation

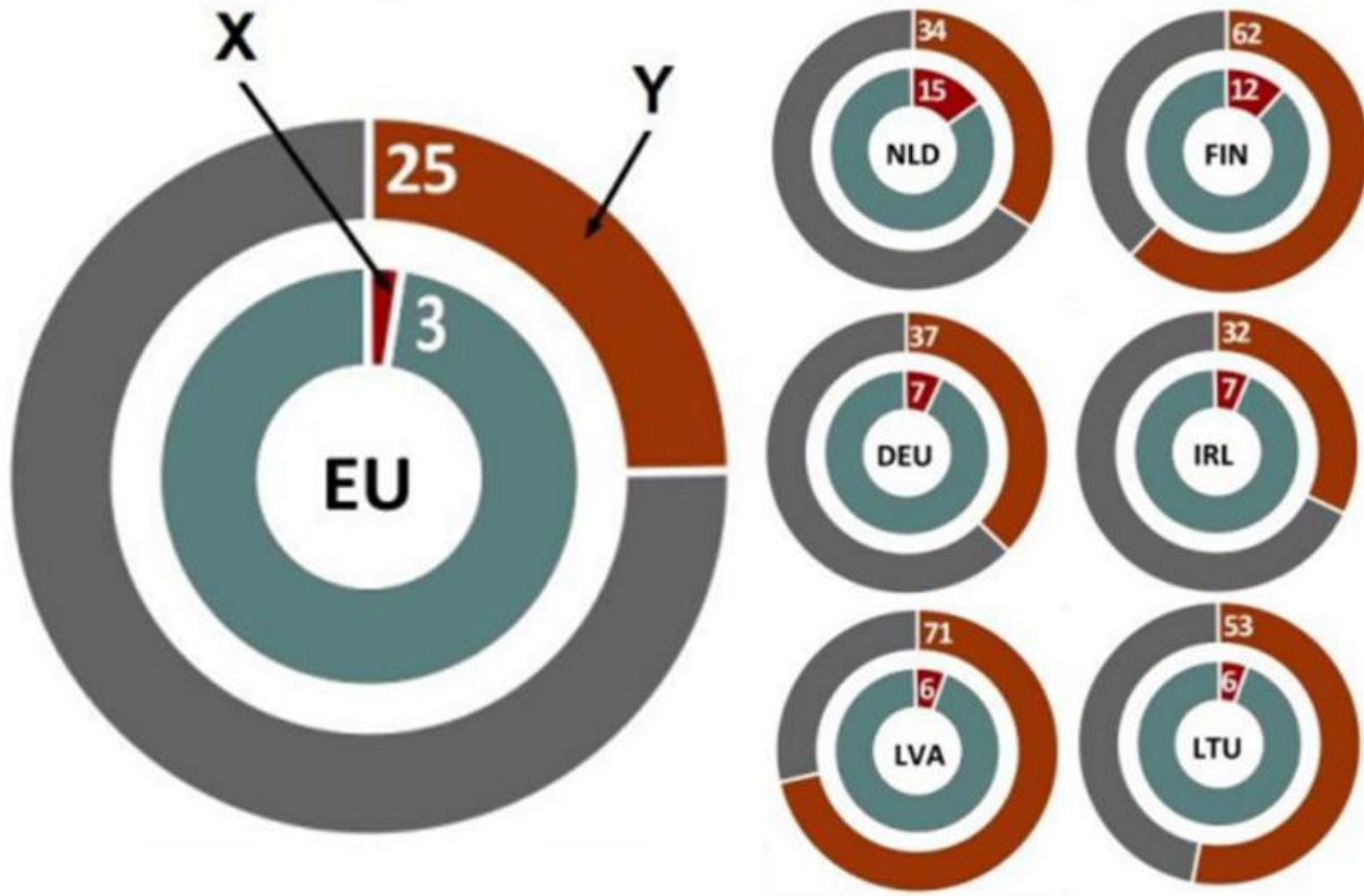
- Put in place restoration measures to restore organic soils in agricultural use constituting drained peatlands:
 - 30% of such areas by 2030, of which at least **a quarter** shall be rewetted;
 - 40% of such areas by 2040, of which at least **a third** shall be rewetted;
 - 50% of such areas by 2050, of which at least **a third** shall be rewetted
- ⇒ Need not be agricultural land: peat extraction, or other land use

Nature Restoration Regulation

- Exemptions:
 - “significant negative impacts” (infrastructure, buildings, climate adaptation, other public interests)
 - No obligation for private landowners & farmers UNLESS obligation under national law
 - Temporary suspension (Art. 27)
- “The implementation of this Regulation shall **not** imply an **obligation** for Member States to **reprogramme any funding under the CAP** [...] under the MFF 2021-2027” (Article 14(11) NRR)

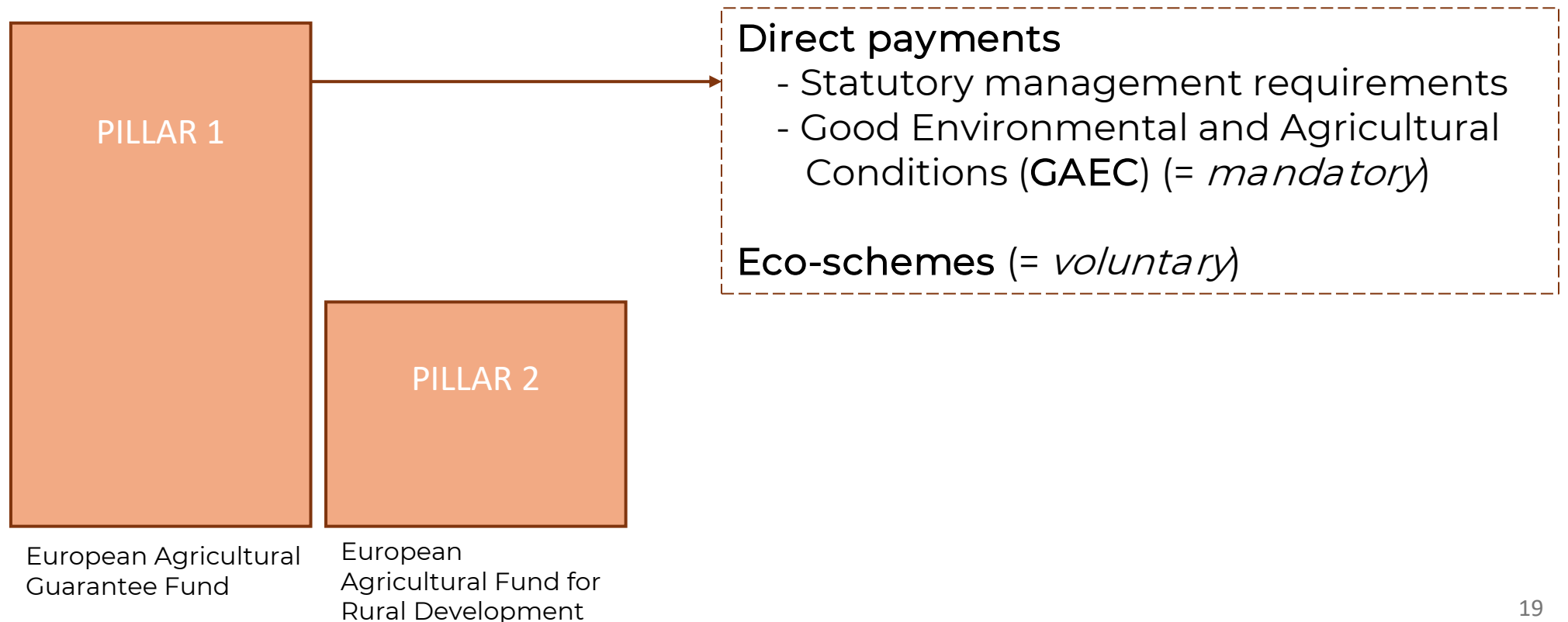


III. Agriculture



CAP 2023-2027

- Two-pillar structure:



CAP 2023-2027

⇒ *“Green architecture”*

- New GAEC 2: “protect wetlands and peatlands”
- **Eco-schemes**
 - Wide variety of activities: organic farming, crop rotation, peatland rewetting, and paludiculture
 - Member States choose which agricultural activities they will support
- Untapped potential

CAP 2023-2027 (continued)

- “Agricultural products” ↔ “paludiculture crops”
- Paludiculture: **productive** land use of wet and rewetted peatlands that preserves peat soil and thereby minimises CO₂ emissions and subsidence
 - *“eligible hectares” (CAP 2023-2027)*
- Food security?

ANNEX I

LIST REFERRED TO IN ARTICLE 38 OF THE TREATY ON THE FUNCTIONING OF THE EUROPEAN UNION

(1) No in the Brussels nomenclature	(2) Description of products
Chapter 1	Live animals
Chapter 2	Meat and edible meat offal
Chapter 3	Fish, crustaceans and molluscs
Chapter 4	Dairy produce; birds' eggs; natural honey
Chapter 5	
05.04	Guts, bladders and stomachs of animals (other than fish), whole and pieces thereof
05.15	Animal products not elsewhere specified or included; dead animals of Chapter 1 or Chapter 3, unfit for human consumption
Chapter 6	Live trees and other plants; bulbs, roots and the like; cut flowers and ornamental foliage
Chapter 7	Edible vegetables and certain roots and tubers
Chapter 8	Edible fruit and nuts; peel of melons or citrus fruit
Chapter 9	Coffee, tea and spices, excluding maté (heading No 09.03)
Chapter 10	Cereals

Paludicultural plants and utilisation options (selection)

	English name	Latin name	Most promising uses	Other uses
Uptake of cultivation very likely	Peat moss	<i>Sphagnum</i> spp.	• Founder material for restoration and Sphagnum farming • Orchid cultivation • Horticultural growing media replacing peat • substrates for carnivorous plants, for vivaria with amphibians, reptiles and spiders, • substrate for hanging baskets, wreathes and vegetation walls	• Insulation and packaging material • Food preservation • Medical dressings, diapers, and sanitary towels • <i>Sphagnum</i> extracts as source of natural sunscreen
	Sundew	<i>Drosera rotundifolia</i>	• Medicinal uses	• Vegetarian rennet for cheese making
	Cattail, Bulrush	<i>Typha angustifolia</i> , <i>Typha latifolia</i>	• Insulation material • Filling material (seed hairs) • Construction material • Packaging and disposable tableware • Horticultural growing media replacing peat • Fodder • Pollen for feeding predatory mites (pest control in glasshouses)	• Combustion • Biogas • Extraction of proteins
	Reed	<i>Phragmites australis</i>	• Thatching material • Insulation material • Construction material • Packaging and disposable tableware • Fodder • Combustion	• Paper • Biogas • Liquid fuels • Extraction of proteins • Silicon from reed leaves for high-performance energy storage devices
	Giant cane	<i>Arundo donax</i>	• Combustion	• Biogas
	Reed Manna Grass	<i>Glyceria maxima</i>	• Fodder	• Biogas • Extraction of proteins
	Reed canary grass	<i>Phalaris arundinacea</i>	• Packaging and disposable tableware • Panels • Fodder • Bedding • Combustion	• Paper • Biogas • Liquid fuels • Extraction of proteins
	Sedges	<i>Carex</i> spp.	• Packaging and disposable tableware • Panels	• Paper • Biogas

			- Fodder - Bedding - Combustion	- Liquid fuels - Extraction of proteins
	Alder	<i>Alnus glutinosa</i>	- Timber for carpentry, interior fittings, furniture - Veneer - Combustion	
	Willow	<i>Salix</i> spp.	- Fodder - Weaving material (e.g. baskets)	
	Bog Myrtle	<i>Myrica gale</i>	- insect repellent - flavour (e.g. beer) - medicinal uses, cosmetics	
	Cranberry	<i>Vaccinium oxycoccos</i>	Food (e.g. berries, juice)	
	Black Chokeberry	<i>Aronia melanocarpa</i>	Food (e.g. berries, juice)	Medicinal uses
Further promising plants for paludiculture	Wild rice	<i>Zizania aquatica</i> , <i>Z. palustris</i>	Cereal	
	Japanese Millet	<i>Echinochloa esculenta</i>	- Food - fodder	
	Celery	<i>Apium graveolens</i>	Vegetable	
	Water Pepper	<i>Persicaria hydropiper</i>	Spicy leaf vegetable	
	Holy Grass	<i>Hierochloe odorata</i>	Flavour (e. g. for drinks)	
	Calamus	<i>Acorus calamus</i>	Flavour (e.g. for drinks), cosmetics	
	Water mint	<i>Mentha aquatica</i>	- Flavour, tea - Perfumery	
	- Cloudberry - Blueberry	<i>Rubus chamaemorus</i> <i>Vaccinium myrtillus</i>	Food (e.g. jam, juice)	
	- Bogbean, buckbean - Meadowsweet - Valerian - Butterbur - Garden Angelica - Alder Buckthorn - Gypsywort - Water Dropwort	<i>Menyanthes trifoliata</i> <i>Filipendula ulmaria</i> <i>Valeriana officinale</i> <i>Petasites hybridus</i> <i>Angelica archangelica</i> <i>Frangula alnus</i> <i>Lycopus europaeus</i> <i>Oenanthe aquatica</i>	Medicinal plants (e.g. pharmaceuticals, cosmetics)	
	Duckweed fern	<i>Azolla filiculoides</i>	- Fodder - Fertiliser (N-fixation)	- Food - Protein extraction
	Duckweed	<i>Lemna</i> spp.	Fodder	Protein extraction

CAP post 2027

- End of the two-pillar structure
- Environmental and climate objectives not prioritised
⇒ *“Do no significant harm”*
- More flexibilities
 - Examples:
 - Conditionality ⇒ farm stewardship and “protective practices”
 - Co-funding required for eco-schemes

Carbon Removals and Carbon Farming Regulation



EUROPEAN COMMISSION

Brussels, 7.7.2025

COM(2025) 374 final

**COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL,
THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS**

Roadmap towards Nature Credits

Carbon Removals and Carbon Farming Regulation

- **Voluntary** framework to facilitate and encourage **additional carbon removals and soil emission reduction activities** in the EU
- Three activities
 - 1) Carbon farming
 - 2) Temporary carbon storage in long-lasting products (e.g. bio-based construction products)
 - 3) Permanent carbon removals (e.g. direct air capture with carbon storage)

Carbon Removals and Carbon Farming Regulation

- Carbon farming = any practice/process carried out over an period ≥ 5 years, related to the management of a **terrestrial or coastal environment** and resulting in the **capture & temporary storage of atmospheric or biogenic carbon** in biogenic carbon pools, or in the **reduction of soil emissions**
- Ongoing: only basic quantification methods/repository
 - CRCF methodologies for carbon farming published in July
 - Agriculture and agroforestry on mineral soils
 - Rewetting and restoration of peatlands and other organic soils
 - Afforestation
 - Use of units TBD

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REVIEW ARTICLE

Synergies and conflicts within the European Green Deal: a peatland case study

[Matilde Meertens](#) ✉

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TOOLS



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Abstract

Peatlands play a vital role in climate change mitigation, biodiversity conservation, and flood control, among other ecosystem services. They can be found all across the European Union (“EU”), yet many peatlands are degraded and are responsible for approximately 5–7% of the EU's total greenhouse gas emissions. Their urgent restoration and rewetting are therefore imperative. Given their versatility, peatlands intersect with

ntives

use:



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