



Soil Biodiversity and the CAP

European Soil Observatory Stakeholders Forum - Session 2 a

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Soil biodiversity and agriculture

- **Soil is alive** - Farming interacts with soil biological activity
- **Soil biodiversity is crucial** - Soil organisms maintain critical processes, like biotransformation of organic matter, nutrient cycling and plant species diversity, and play a key role in maintaining soil fertility
- **Soil biodiversity shows great variability due to:** air, temperature, acidity, moisture, nutrient content, land use. Soils are conditioned by climate, altitude, soil parent material, land use and human activity
- **Role of farming** - EU farms manage around 45% (157 million ha) of the total land area of EU-27 (of which 38,2 % as land area, 6,6% as agri-wooded area)



Threats to soil biodiversity

- Loss of above ground biodiversity - positive correlation between crop diversity and soil biological activity
- Climate change
- Land use change, habitats fragmentation and soil sealing
- Pollution - pesticides, fertilizers, heavy metals, salinisation
- Inappropriate agricultural practices – important ploughing, high levels of crop protection, nutrition and mechanisation
- Overgrazing
- Soil Erosion - loss of organic top layer of the soil
- Soil carbon loss
- Land degradation and desertification
- Fire
- Invasive species

Land use and good agricultural practices

- Prevention and restoration of degraded land
- Precision farming
- Diversification of cropland
- Agroforestry, bosquets, tree lines plantations
- Soil tillage practices
- Soil erosion control
- Soil Amendments
- Bioremediation



MAIN types of AGRICULTURAL PRACTICES (indicative, out of SPR)



CLIMATE CHANGE ACTION



NATURAL RESSOURCES



PRESERVE LANDSCAPES & BIODIVERSITY



ANIMAL WELFARE & AMR



European Commission

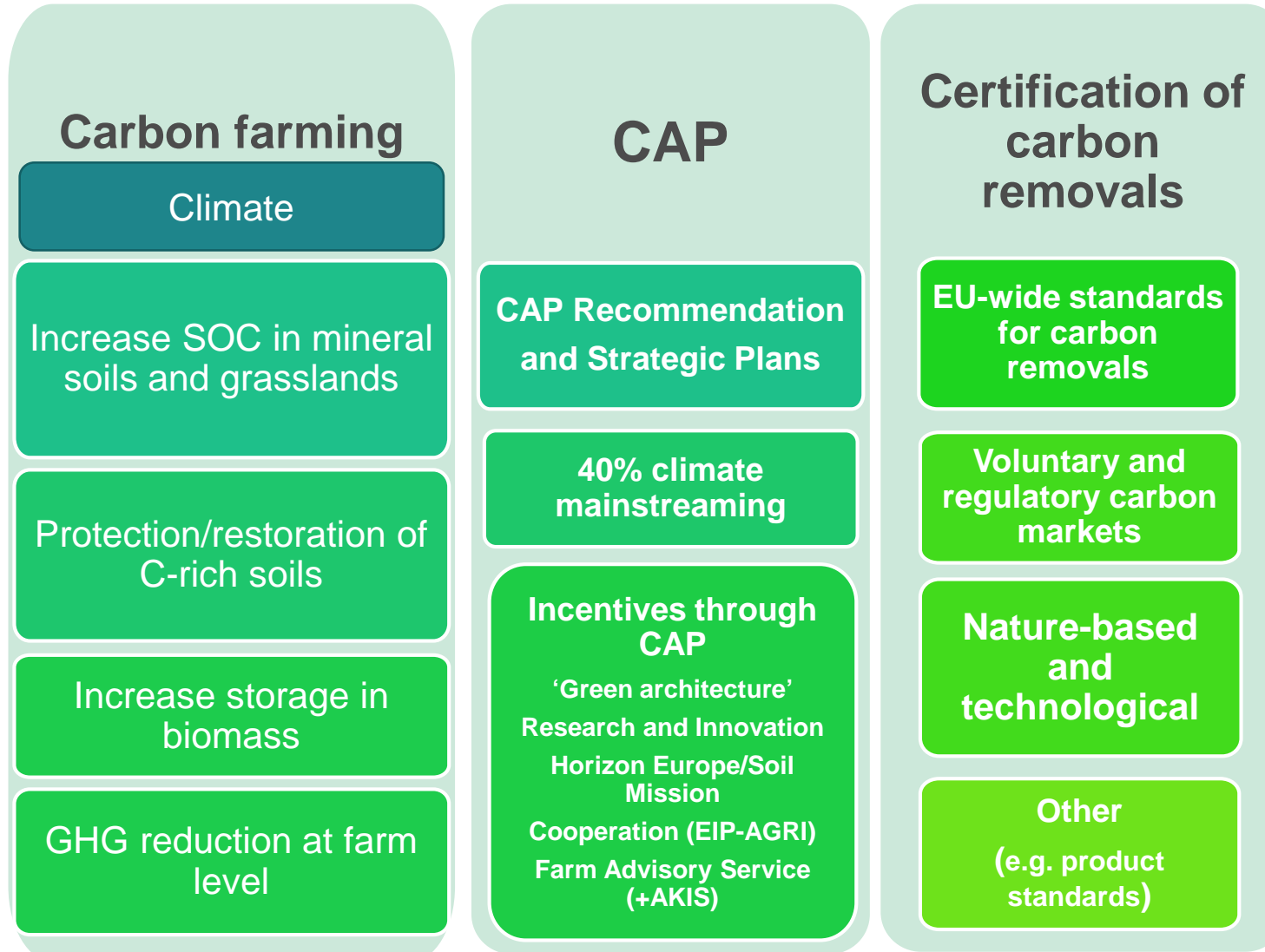
1. PRACTICES ESTABLISHED IN EU POLICIES

- Organic farming: conversion and maintenance
- Integrated Pest Management practices (Directive SUD)

2. OTHER types of PRACTICES

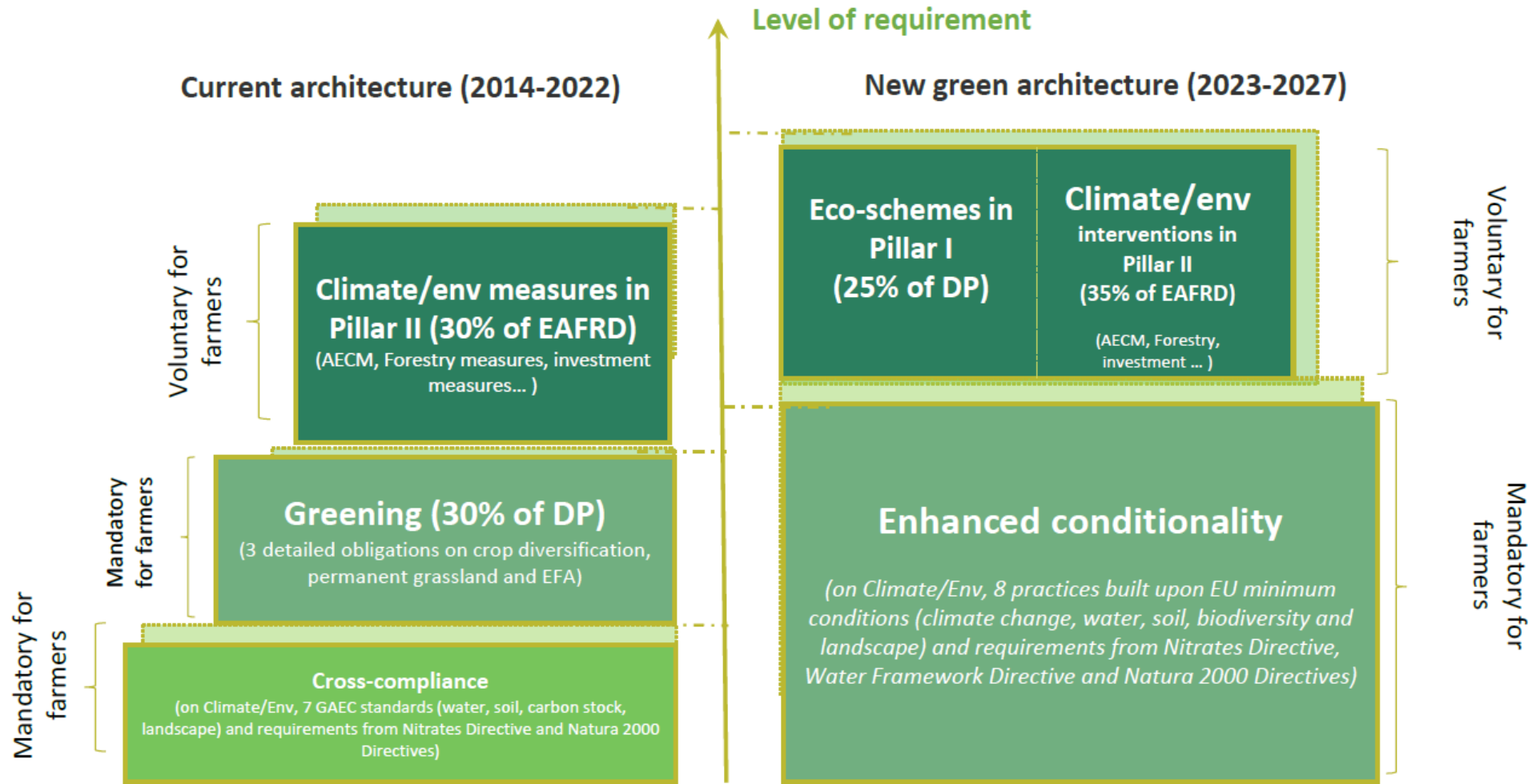
- Agro-ecology
- Husbandry and AW plans
- Agro-forestry
- Landscape features
- High nature value (HNV) farming
- Precision farming
- Nutrient management
- Protecting water resources
- Practices beneficial for soil
- Related to GHG

Carbon farming initiative (Farm to fork strategy)



https://ec.europa.eu/clima/news/commission-sets-carbon-farming-initiative-motion_en

CAP Toolbox – the New Green Architecture



Future conditionality: GAEC standards

Climate change

- GAEC 1: Maintenance of **permanent grassland** based on a ration PG/agricultural area (at national, regional, sub-regional, holding level) (“greening”)
- GAEC 2: Protection of **wetland and peatland** (new)
- GAEC 3: **Ban on burning** arable stubble, except for plant health reasons (cross-compliance)

Water

- GAEC 4: Establishment of **buffer strips** along water courses stubble [minimum width of 3 meters] (cross-compliance)

Soil

- GAEC 5: **Tillage management** reducing soil erosion risk with slope consideration (cross-compliance)
- GAEC 6: **Minimum soil cover** to avoid bare soil in **periods that are most sensitive** (cross-compliance)
- GAEC 7: Crop **rotation** in arable land, except for crops growing under water (“greening”)

Biodiversity and landscapes

- GAEC 8: Minimum **share of agricultural area [arable land] devoted to non-productive areas or features**, retention LF, ban cutting hedges/trees during bird rearing season
- GAEC 9: **Ban on converting or ploughing permanent grassland designated as environmentally-sensitive** in Natura 2000 sites (“greening”)

Pillar 1- Eco-schemes

- New way of spending Pillar I funding on the environment and climate (i.e. without co-financing)
- Can be useful to design a scheme that is attractive to a larger number of farmers – and will help achieve a higher level of ambition
- Mandatory for MS, voluntary for farmers
- May target areas in which MS has particular challenges (e.g. emissions or nitrates or biodiversity)
- Annual commitments and payments – can be useful feature
- MS have flexibility over content of eco-schemes...
- ...and flexibility over payment – possibility of incentives

Pillar 2 –main components of green architecture

Article 65

- **Environmental climate and other management commitments**

Article 67

- **Area-specific disadvantages resulting from certain mandatory requirements (Natura + WFD payments)**

Other RD interventions

- **Advice, training, co-operation, investments**
- (especially non-productive investments accompanying management commitments)

Soil indicators

EU SPECIFIC OBJECTIVES

Foster sustainable development and efficient management of natural resources such as water, **soil** and air

IMPACT INDICATORS

- **I.13 Reducing soil erosion:** Percentage of land in moderate and severe soil erosion on agricultural land

RESULT INDICATORS

- **R.18 Improving soils:** Share of agricultural land under management commitments beneficial for soil management

CAP Strategic Plans and sustainable soil management

- **Single CAP plan** for interventions from both pillars
- **Strategic approach** based on needs assessment and EU level objectives
- **Structured dialogue** with Member States
- CAP Plan will be **approved by the Commission**
- Need to **ensure the commonality** while recognising the specificities of each Member State
- Must be **ambitious and contribute to Green Deal targets**





Thank You