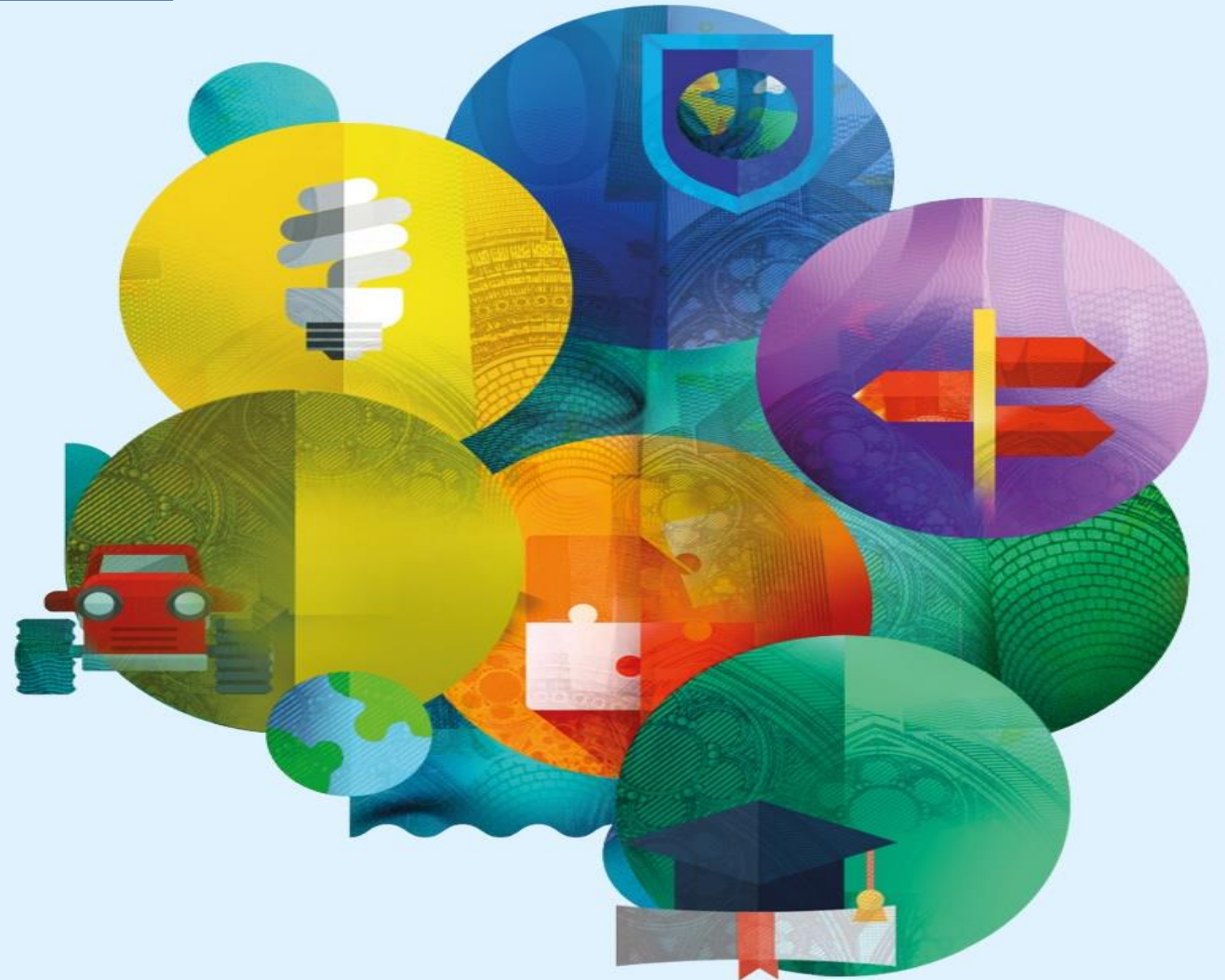


IMPROVED NUTRIENT USE AND MANURE MANAGEMENT TOWARDS SUSTAINABLE AND RESILIENT AGRICULTURAL SYSTEMS

The EU Approach

#FutureofCAP



The EU Agriculture Policy

**EU
Agriculture**

 **CLIMATE & CLEAN ENERGY
AND ENVIRONMENT**

 **STEWARDSHIP**
48 % OF EU LAND

 **BIO & CIRCULAR
ECONOMY**



**44 MILLION JOBS
IN THE FOOD CHAIN**

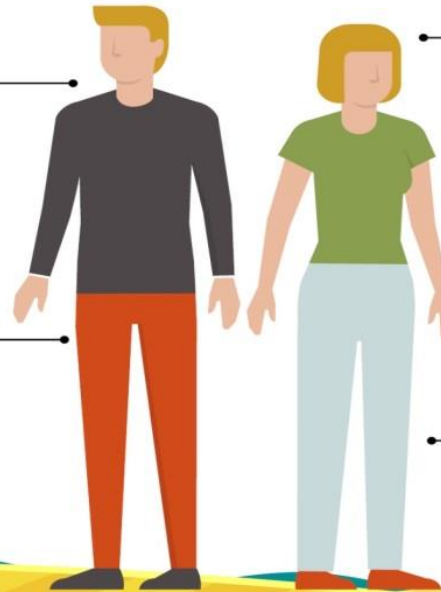
 **FOOD SECURITY
FOR 500 MILLION CONSUMERS**



SINGLE MARKET



**EU AGRI-FOOD EXPORTS €
131 BN**



The CAP

Is a common policy framework at EU level allowing for adaptation to local conditions

Provides support for farm income and competitiveness, while fostering a sustainable agriculture

Supports the development of rural areas throughout the EU

Enables the functioning of the single market and to speak with one voice internationally



European
Commission

**INCREASE
COMPETITIVENESS**



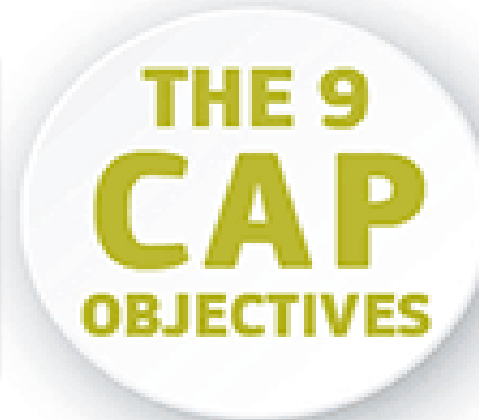
**REBALANCE
POWER IN FOOD CHAIN**

**ENSURE
FAIR INCOME**



**CLIMATE CHANGE
ACTION**

**Innovation &
Modernization**



**ENVIRONMENTAL
CARE**

**PROTECT
FOOD & HEALTH
QUALITY**



**VIBRANT
RURAL AREAS**



**PRESERVE
LANDSCAPES
& BIODIVERSITY**

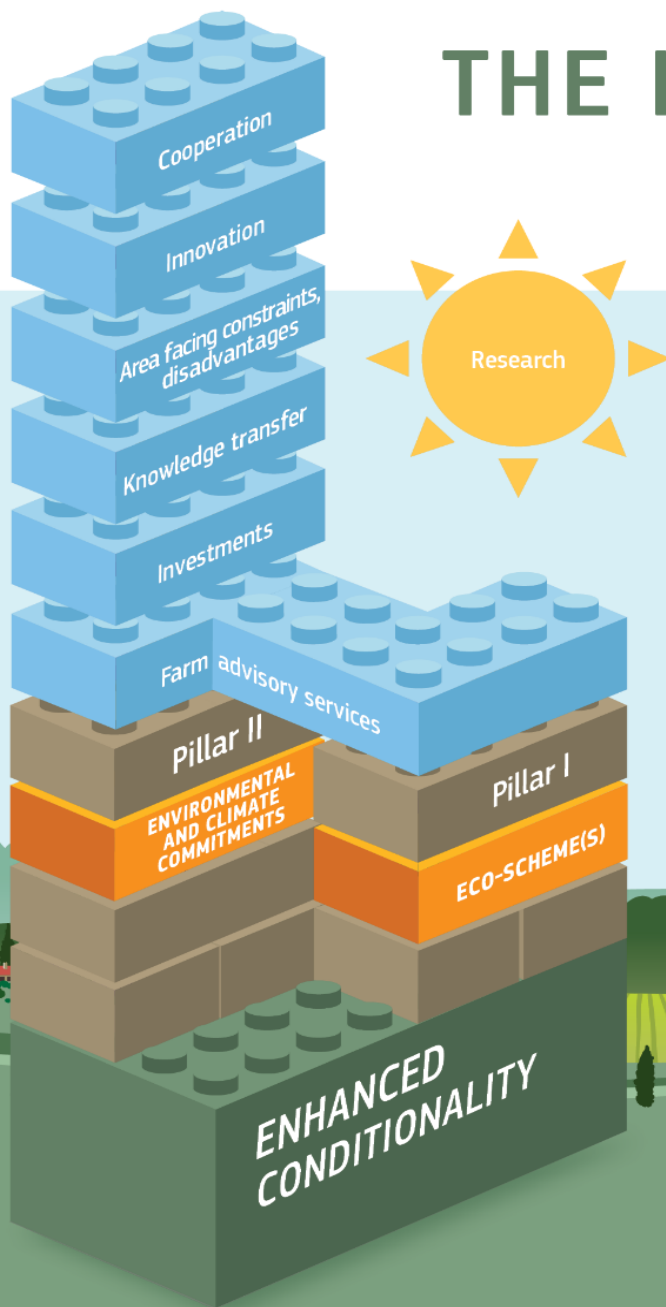


**SUPPORT
GENERATIONAL
RENEWAL**

THE NEW GREEN ARCHITECTURE

Green architecture for reduction of emission of N₂O from agricultural lands

Designed for answering to the specific need of reducing N₂O emissions to the atmosphere, through reducing the nitrification process of nitrogen in excess due to fertilization.



Eco-schemes

- Maintenance of leguminous in cropping systems
- Perennial cover in orchards
- Catch crops beyond the sensitive period
- Maintenance of organic farming

CAP Pillar II

Result-based N₂O schemes

- Conversion to organic farming
- Support for training, for the application of precision farming
- Investments for precision fertilization facilities and tools (hardware, software, services and data)
- Cost for soil sampling at sub parcel level to feed Farm Sustainability Toll (GAEC5)

Conditionality

Co-benefits for N₂O reduction:
 SMR2: Nitrate Directive
GAEC 5: Use of Farm Sustainability Tool for Nutrients. Refer to minimum requirements.
 GAEC 7: No bare soil in most sensitive period(s). Define soil cover and sensitive period.

Baseline

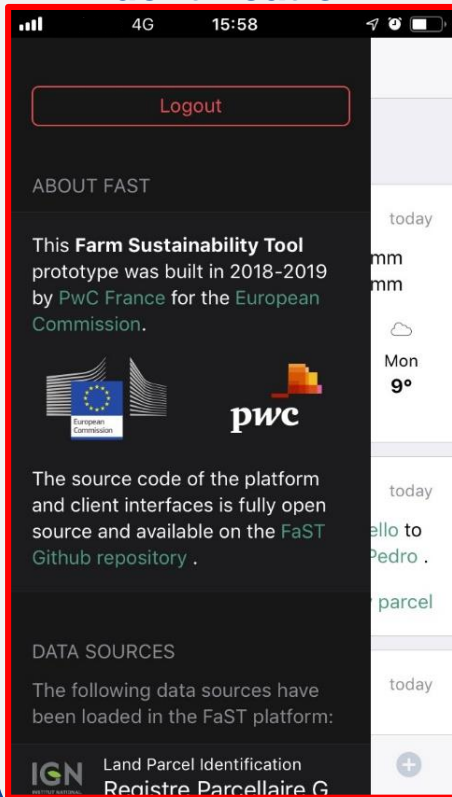
CAP specific objective:
 Contribute to climate change MITIGATION and adaptation, as well as sustainable energy

Farm Sustainability Tool for Nutrients – FaST

Example

1

Access to the APP or web browser using unique identification



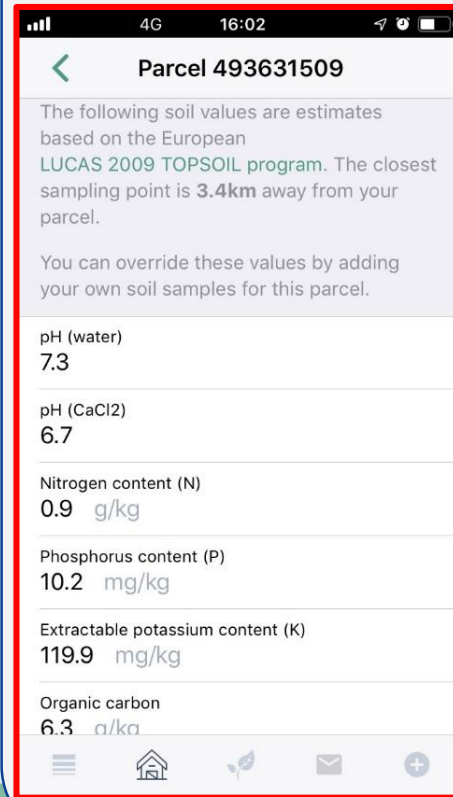
2

Confirmation of the parcels based on the LPIS limits



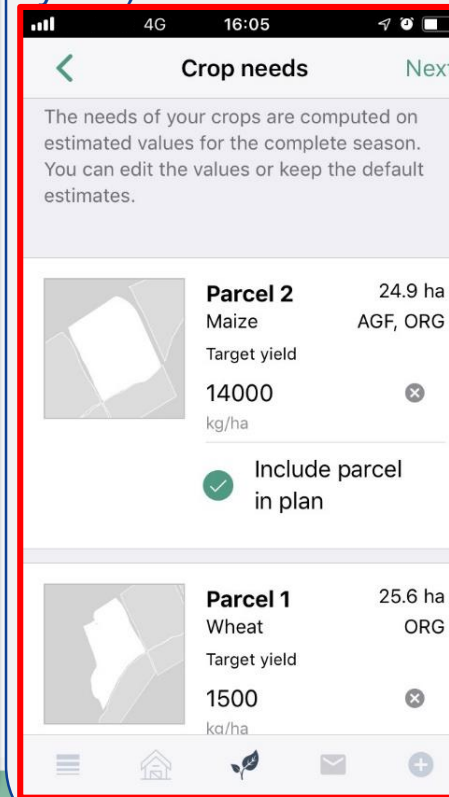
3

Integration of data sources:
Soil data, Natura2000



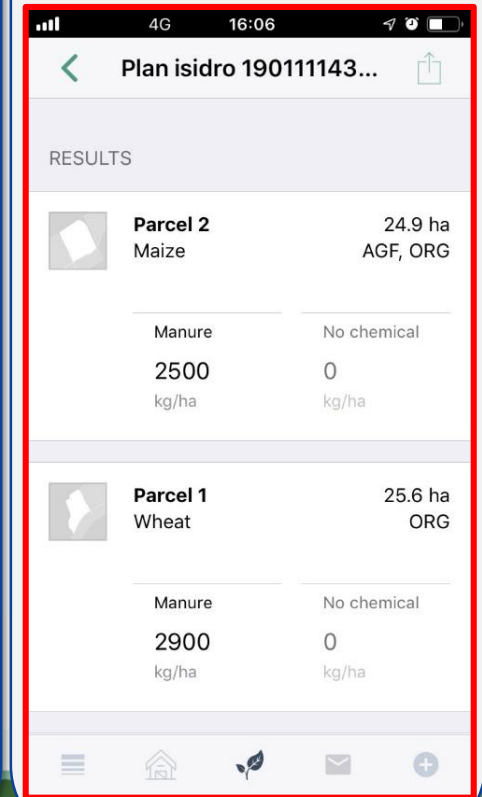
4

Data entry and confirmation
(Crop and expected yield)

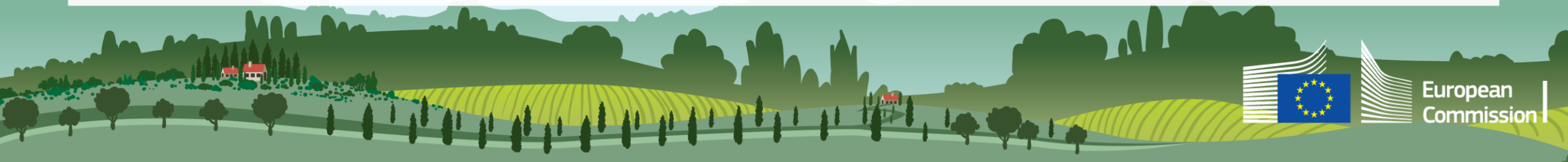


5

Nutrients Management Plan
(Field/Farm scale)



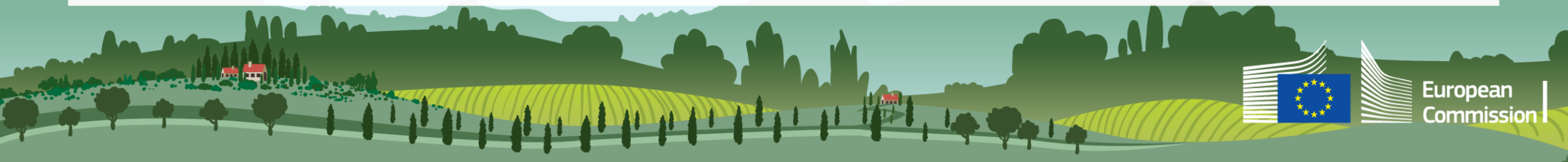
- Agronomic, environmental and climatic benefits
 - Optimization in the use of nutrients
 - Valorisation of sources of nutrients
 - Legal limits & requirements (simplification)
- Digitalization, modernisation & digital skills
 - Electronic tool in the hands of the Farmer
 - Support other initiatives for a more modern CAP
- Level-Playing-Field
 - Data and knowledge based advice
 - Data and information access



Farm Sustainability Tool for Nutrients – FaST

Summary

- To reach the necessary scale for a meaningful impact (GAEC→First Pillar)
- Benefits:
 - agricultural, economic, environmental and climate change mitigation
 - provides a real level-playing field for all farmers across EU
 - accessibility to data & knowledge-based advice
 - digitalization
- Able to integrate further modules/apps/widgets/services (opening and reuse principles).
- Certain level of technical detail will be necessary:
 - facilitates the implementation and roll-out of the FaST
 - ensures a real level-playing field for all farmers across EU
 - the elements proposed are really minimum



A Green Deal for Europe - General

- Europe will strive becoming the world's first climate neutral continent
- More ambitious climate target for 2030
- Sustainable Europe Investment Plan (1 trillion €/10y)
- European Climate Pact (including regions, local communities, civil society, industry and schools)
- Biodiversity Strategy for 2030
- New Circular Economy Action Plan



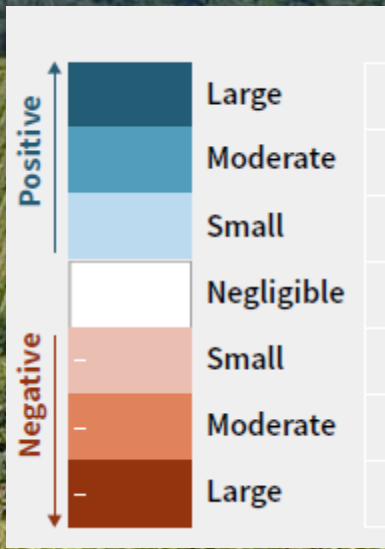
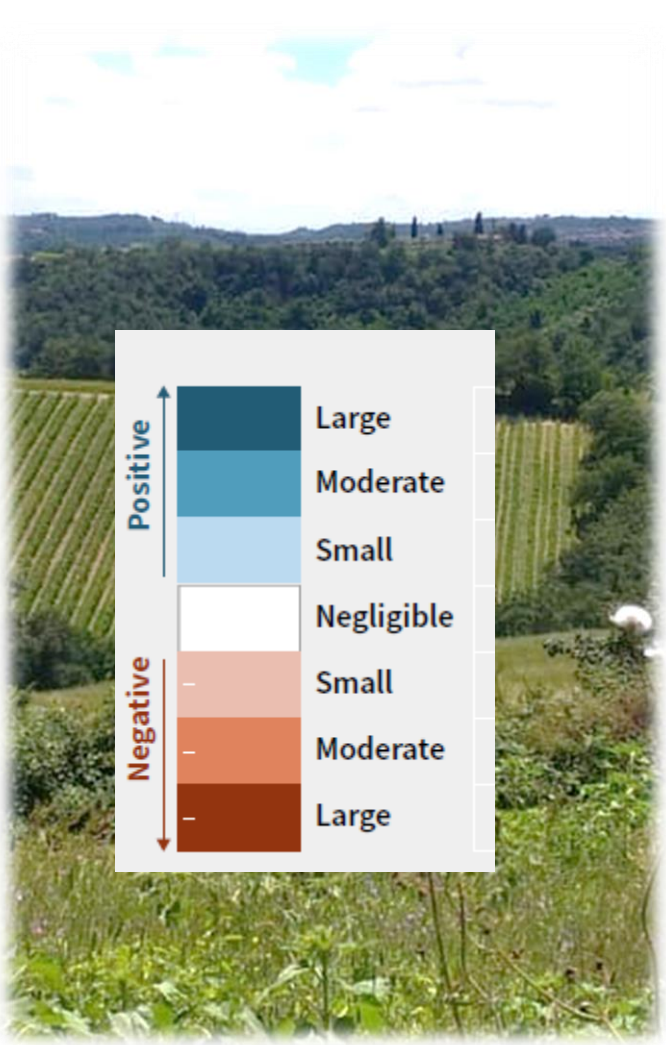
A Green Deal for Europe - Agriculture

The Farm to Fork Strategy:

- Covering the whole value chain
- Ensuring a decent living for farmers
- Providing Europeans with nutritious, affordable and safe food
- Preserving rural areas and investing in their future
- Action plan under development



Assessment



Response options based on land management

	Mitigation	Adaptation	Desertification	Land Degradation	Food Security	Cost
Agriculture	Increased food productivity	L	M	L	M	H
	Agro-forestry	M	M	M	M	L
	Improved cropland management	M	L	L	L	L
	Improved livestock management	M	L	L	L	L
	Agricultural diversification	L	L	L	M	L
	Improved grazing land management	M	L	L	L	L
	Integrated water management	L	L	L	L	L
	Reduced grassland conversion to cropland	L	---	L	L	L
Forests	Forest management	M	L	L	L	L
	Reduced deforestation and forest degradation	H	L	L	L	L
Soils	Increased soil organic carbon content	H	L	M	M	L
	Reduced soil erosion	↔ L	L	M	M	L
	Reduced soil salinization	---	L	L	L	L
Other ecosystems	Reduced soil compaction	---	L	---	L	L
	Fire management	M	M	M	M	L
	Reduced landslides and natural hazards	L	L	L	L	L
	Reduced pollution including acidification	↔ M	M	L	L	L
	Restoration & reduced conversion of coastal wetlands	M	L	M	M	↔ L
Restoration & reduced conversion of peatlands	M	---	na	M	L	

Response options based on value chain management

Demand	Reduced post-harvest losses	H	M	L	L	H
	Dietary change	H	---	L	H	H
	Reduced food waste (consumer or retailer)	H	---	L	M	M
Supply	Sustainable sourcing	---	L	---	L	L
	Improved food processing and retailing	L	L	---	---	L
	Improved energy use in food systems	L	L	---	---	L

Response options based on risk management

Risk	Livelihood diversification	---	L	---	L	L
	Management of urban sprawl	---	L	L	M	L
	Risk sharing instruments	↔ L	L	---	↔ L	L

AGRICULTURE MANAGEMENT

Context 11% of global emissions: CH₄ (enteric fermentation); N₂O (fertilizer)
CO₂ emissions from soil disturbances

Response options based on land management		Mitigation	Adaptation	Desertification	Land Degradation	Food Security	Cost	Potential GtCO ₂ yr ⁻¹
Agriculture	Increased food productivity	L	M	L	M	H	—	>13
	Agro-forestry	M	M	M	M	L	●	0.1 - 5.7
	Improved cropland management	M	L	L	L	L	●●	1.4 - 2.3
	Improved livestock management	M	L	L	L	L	●●●	
	Agricultural diversification	L	L	L	M	L	●	
	Improved grazing land management	M	L	L	L	L	—	
	Integrated water management	L	L	L	L	L	●●	
	Reduced grassland conversion to cropland	L	—	L	L	L	●	



- Improved cropland management (1.4-2.3 GtCO₂e year)**
- a) *management of the crop* (crop rotation, use of cover crops, perennial cropping systems)
 - b) *nutrient management*: including optimized fertiliser application rate, fertiliser type
 - c) *reduced tillage intensity and residue retention*
 - d) *improved water management*
 - e) *improved rice management*: including water management such as mid-season drainage
 - f) *biochar application.*

Thank you for your attention!

Further information will be available at:
https://ec.europa.eu/agriculture/future-cap_en
<https://tinyurl.com/EUsubmission>
<https://tinyurl.com/EU-agriculture-brochure>

