

Directorate Sustainable Resources

JRC info Day in Slovenia
Ljubljana – 20 October 2025

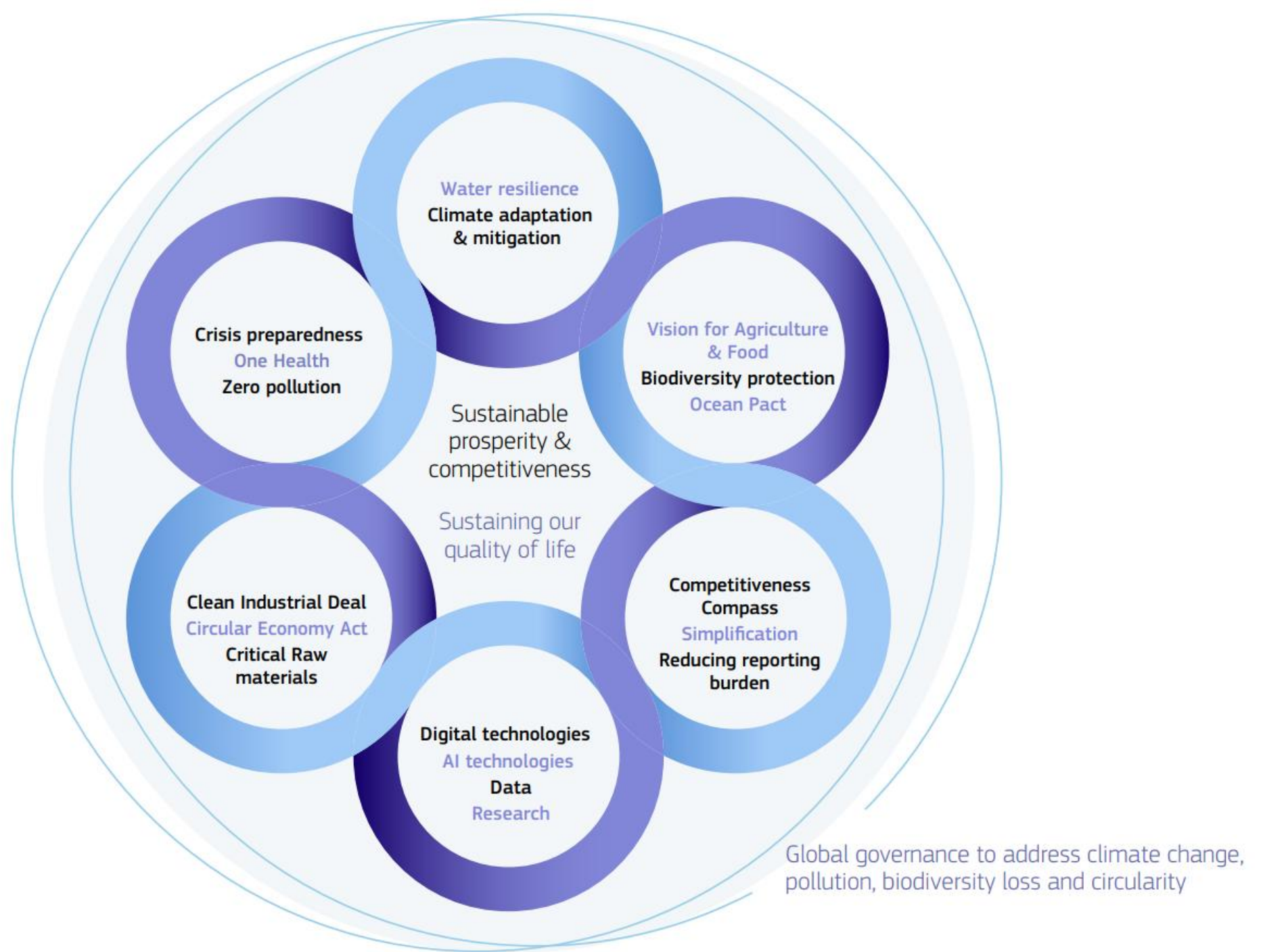
Alessandra Zampieri - Director

Our mission

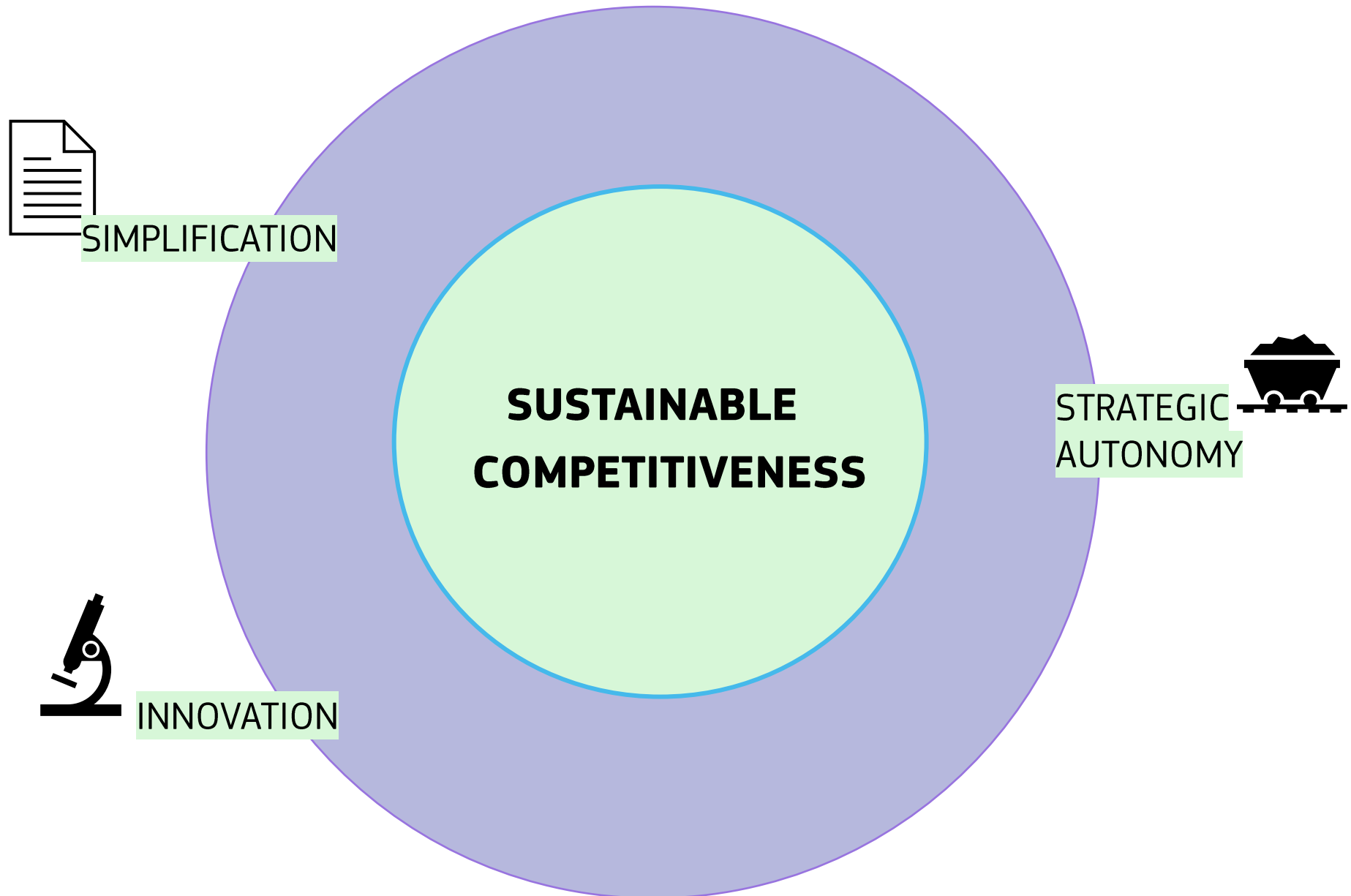
“Our science, situated at the crossroads of the environment, economy and society, coupled with scientific networks across the EU and beyond, informs policies to ensure present and future generations enjoy a sustainable planet.”



EC political
guidelines
2024-2029
and focus
areas of **Dir D**



Clean Transition



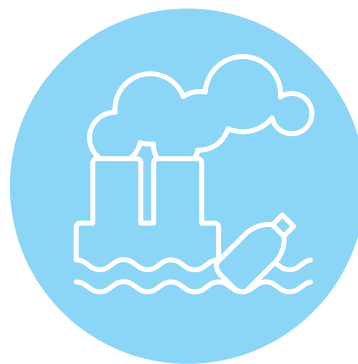
Nature and long-term prosperity



**Nature and
natural resources**



**Production
process**



**Pressures and
externalities**



**Need for
sustainability**



**Long-term
prosperity**

Nature's impact on economic resilience



Biodiversity loss and ecosystem degradation pose substantial risks to the global economy.

19 out of 23 economic sectors in the EU have substantial nature dependencies for at least 40% of gross value added.

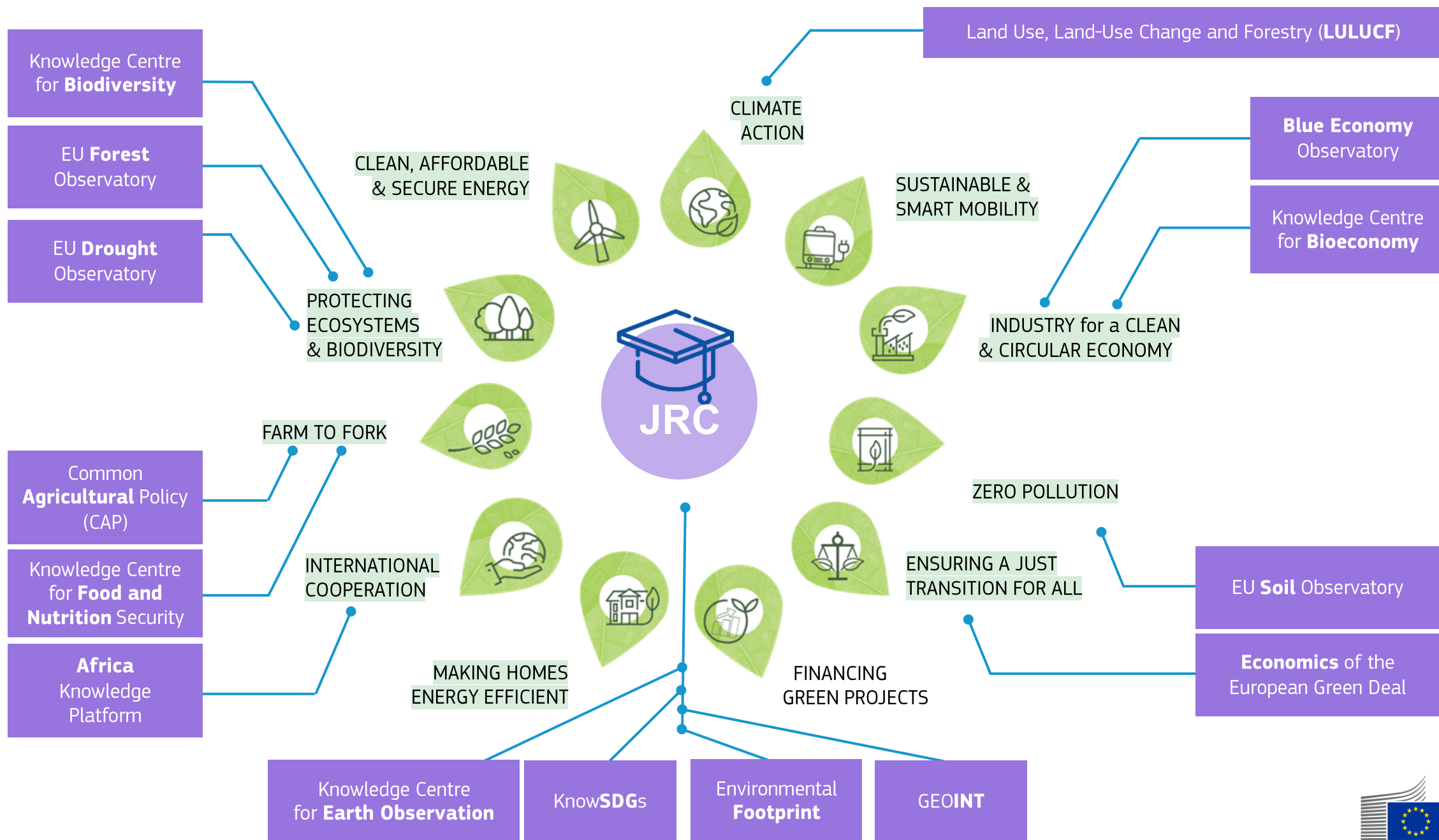


75% of EU corporate loans are granted to companies that heavily rely on nature, which is a risk to the financial sector.

Over half the world's total GDP depends moderately or highly on nature.



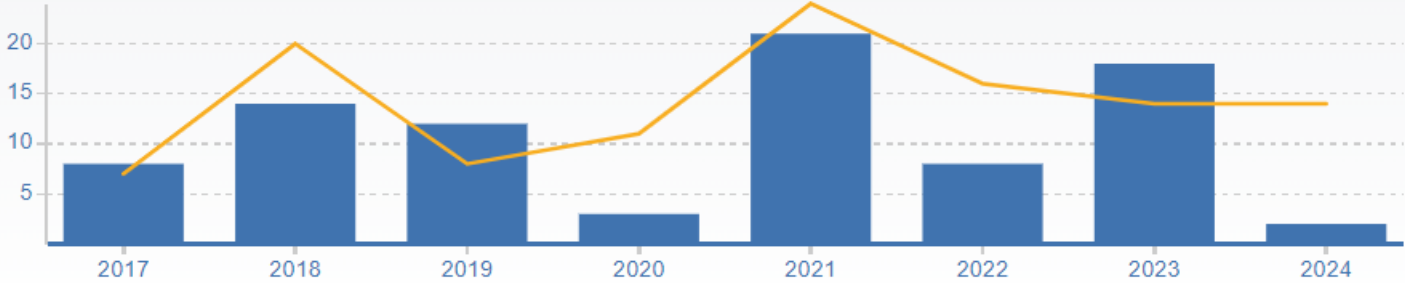
Every €1 invested in nature generates €4-38 in socio-economic benefits, such as carbon sequestration and pollination.



GETM	General Estuarine Transport Model	MAGNET	Modular Applied GeNeral Equilibrium Tool	CAPRI	CAPRI
ERGOM	The Ecological Regional Ocean Model	AGMEMOD	AGricultural MEMber states MOdelling	BioMA	BioMA
EwE	Ecopath with Ecosim	ESSTM-DEV	Eco System Simulator for Developing Countries	WOFOST	WOFOST
GOTM				Common Agricultural	
FEMRAD-OC				modity Simulation	
NAUSICAA				Regional Impact	
a4a				GFTM	Global Footprint Tool
GREEN				CBM-CFS3	Carbon Footprint Sectoral
SWAT				EFDM	Environmental Footprint Data Model
EPIC	Environmental Policy Impact Calculator	CENTURY	CENTURY agroecosystem dynamic model	Dinamica EGO	Dinamica EGO
MEPHOLI	MEPHOLI model (primary production)				
FishHab	Essential habitats of key marine species	RUSLE2015	Revised Universal Soil Loss Equation		
COBECOS	Costs and Benefits of Control Strategies	G2	G2 soil erosion model		
LISFLOOD	LISFLOOD hydrological model	CONSUMPTION FOOTPRINT	Environmental impacts of the consumption of EU and EU countries		
BSEM	Black Sea Ecosystem Model	DOMESTIC FOOTPRINT	Environmental impacts of the domestic production and consumption of EU and EU countries		
SimpleTreat	SimpleTreat				

EUROPEAN COMMISSION

Model Use In Impact Assessments Since July 2017



Impact Assessments (86)



Models (62)

Models are an essential component of evidence-informed policymaking



Nature credits,
depollution,
metrics beyond
GDP

ZEBRA



Vision for Food
and Agriculture
Sustainability
benchmarking

TSFS



Clean industrial
deal & valorisation
of natural
resources

SUMAPRO



Integrated land
use models,
carbon farming

**CLIMATE
NEUTRALITY**



Balancing the
green agenda and
competitiveness &
fairness

GREEN TRANS



AI & data
interoperability in
environmental and
food policies

AIDA



Solutions for
climate adaption
and water
resilience

BLUECARE



Reporting burden
and EO uptake in
policies

**EARTH
INTELLIGENCE**



**Bathing
Water**
Directive

**Integrated
Nutrient
Management
Nitrates**
Directive

**Urban
Wastewater
Treat.**
Directive

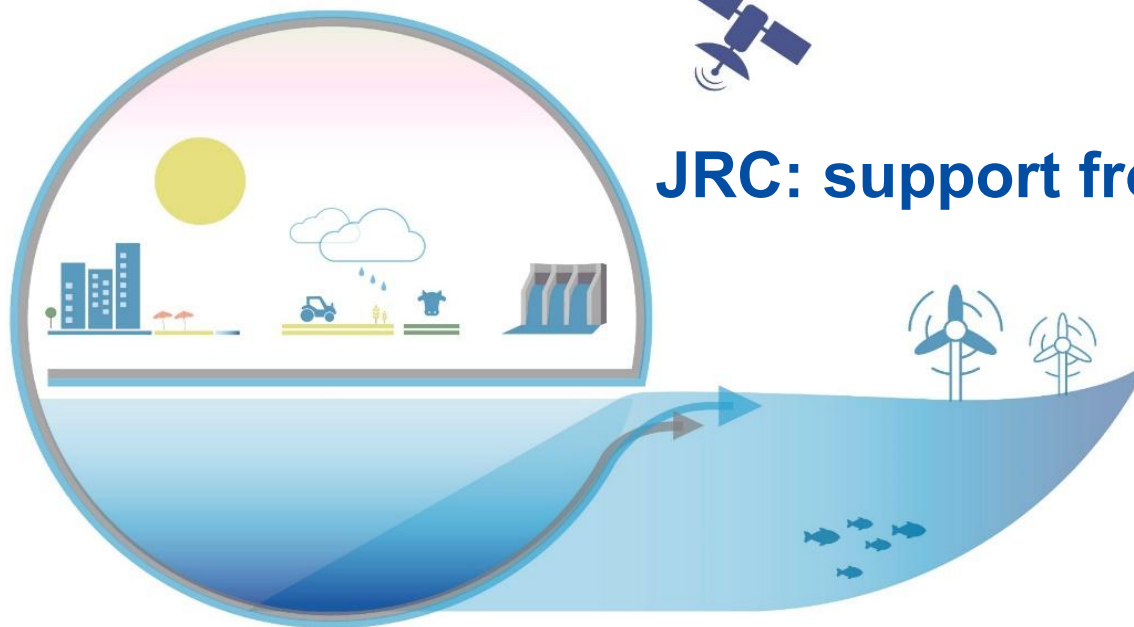
**Drinking
Water**
Directive

Water Reuse
Regulation

Copernicus



JRC: support from source to sea



Floods
Directive

**Water
Framework**
Directive

**Marine
Strategy
Framework**
Directive

**Common
Fisheries**
Policy

**Sustainable
Blue**
Economy

The EU Water Academy

Enhancing Water Resilience: public-private partnerships, capacity building, innovation.

Key Areas of Focus: wastewater treatment, water reuse, applying innovative approaches like "Lab to Fab" transitions and living labs.

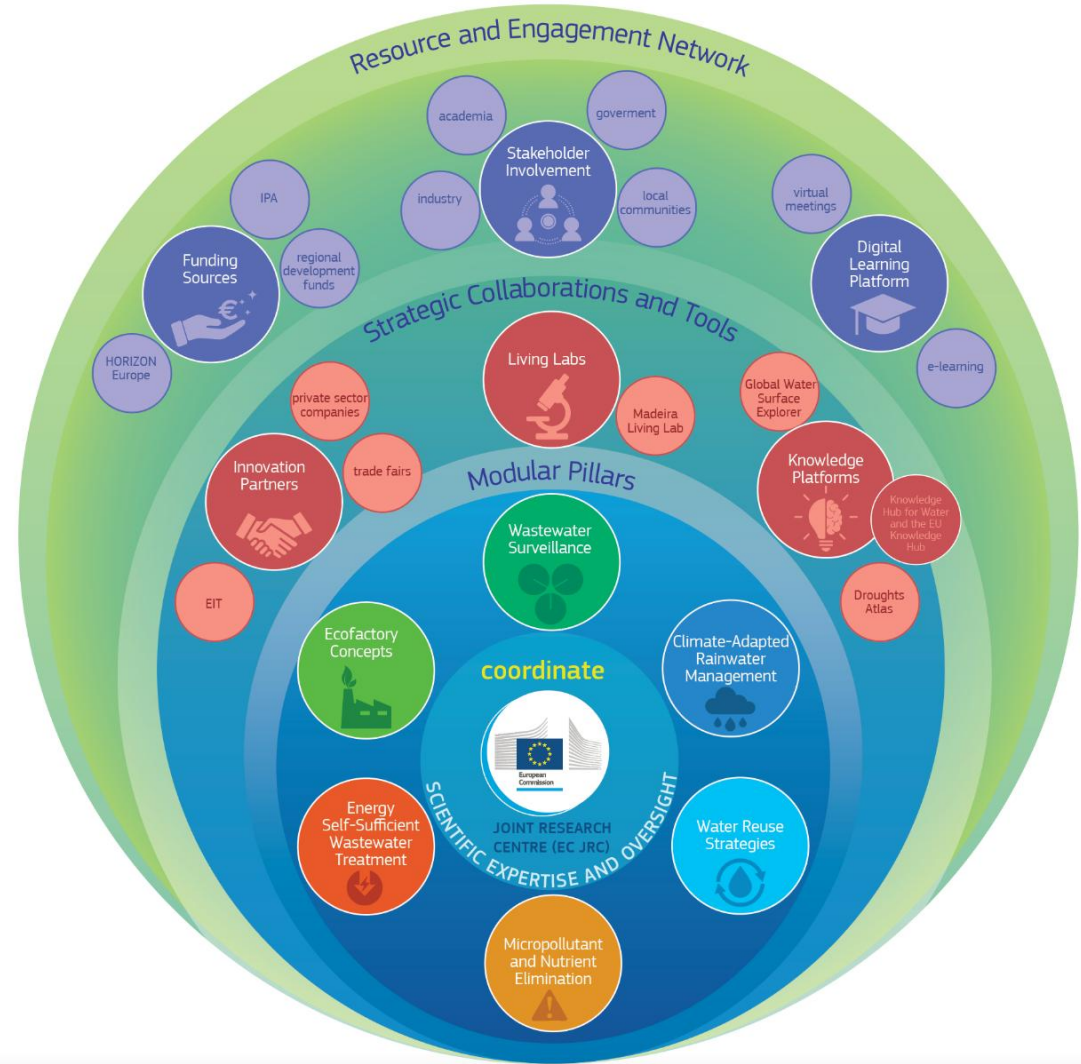
Partnership and Collaboration: a collaborative effort, coordinated by the JRC, in partnership with Commission DGs, member state authorities, and the European water sector.

Innovative Initiatives: Wastewater Surveillance Academy for Health and the Water Reuse Risk Management Community of Practice.

Next events: Water Resilience Forum, Brussels, 8 December 2025 – Formal high-level launch in 2026 under Cyprus Presidency.

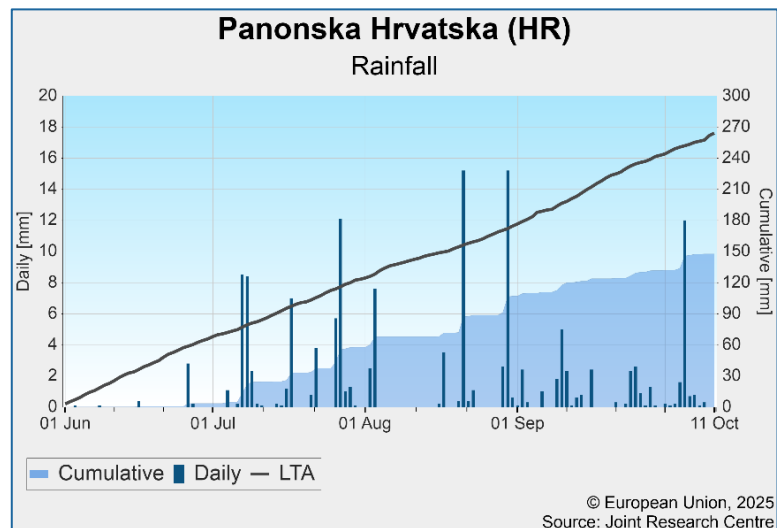
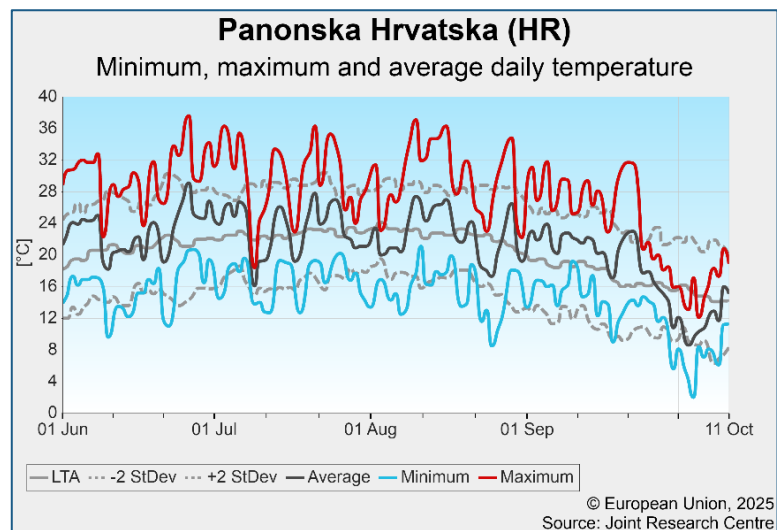
Survey:

[EUSurvey - Survey](#)

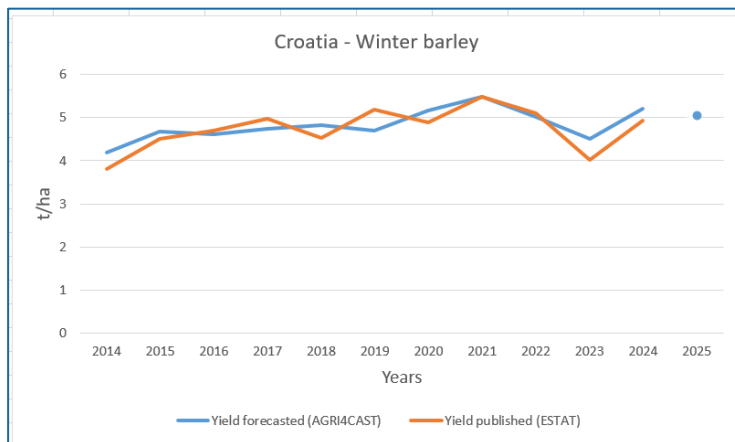


JRC MARS Bulletin, Croatia, September 2025

HR



Crop	Area (x 1000 ha)					Yield (t/ha)					Production (x 1000 t)				
	Avg 5yrs	2024	2025	%25/5yrs	%25/24	Avg 5yrs	2024	MARS 2025 forecasts	%25/5yrs	%25/24	Avg 5yrs	2024	2025	%25/5yrs	%25/24
Total wheat	153	137	147	-4	+7	5.77	5.85	5.99	+4	+2	881	800	879	-0	+10
Soft wheat	153	137	147	-4	+7	5.77	5.85	5.99	+4	+2	881	800	879	-0	+10
Durum wheat	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total barley	56	52	57	+2	+9	4.85	4.93	5.02	+4	+2	272	257	286	+5	+11
Winter barley	56	52	57	+2	+9	4.85	4.93	5.02	+4	+2	272	257	286	+5	+11
Spring barley	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Grain maize	277	272	274	-1	+1	7.51	7.69	7.10	-5	-8	2080	2093	1946	-6	-7
Rye	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Triticale	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Rape and turnip rape	25	18	18	-29	+1	2.79	2.96	2.90	+4	-2	71	53	52	-27	-1
Potatoes	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sugar beet	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sunflower	50	61	67	+33	+10	2.92	2.97	2.77	-5	-7	147	180	185	+26	+3
Soybeans	88	103	96	+8	-6	2.61	2.48	2.49	-5	+0	231	254	239	+3	-6
Field peas	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Field beans	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Rice	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Green maize	27	25	25	-9	-1	34.8	35.6	33.1	-5	-7	952	902	828	-13	-8



CleanTransition and strategic autonomy - Critical Raw Materials Act



Sustainable Development Goals, Principles, Partnerships, Sustainable Management, Policies, Knowledge Systems



Environmental Performance Environmental Assessments and Footprints, Life Cycle Assessments



Circular Economy and Value Chains Supply risk analyses, Recycling and Ecodesign



Social dimension Life cycle social assessments, Responsible Sourcing, Due Diligence, Conflicts

JRC Support to CRM Act implementation so far:



Metals / Minerals
Intelligence / Knowledge

→ **Supply:**

Analyses / modelling / foresight

Extraction,
processed
materials,
etc.

Environmental,
Social,
Economic

Circularity

→ **Demand:**

Value Chain Modelling / Analysis / Foresight on e.g. material needs

5 Sectors & 15 Technologies value chain analyses: Renewable Energy, E-mobility, Batteries, Electronics/Electrical, Semi-Conductors, ...

Thank you



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