

# The KIP INCA project



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## Project KIP INCA

- **Knowledge Innovation Project  
on Integrated System for Natural Capital and  
Ecosystem Services Accounting in the EU**
- Partnership of European Commission services (DG ENV, DG CLIMA, DG JRC, DG ESTAT, DG RTD) and the and EEA.
- Environmental Knowledge Community (EKC) launched Knowledge Innovation Projects (KIPs): address gaps in environmental knowledge, using an innovate approach
  - **Feasibility and design phase: 2015- 2016**
  - **EKC meeting July 2016 (DG level)**
  - **Implementation phase: 2016-2020**

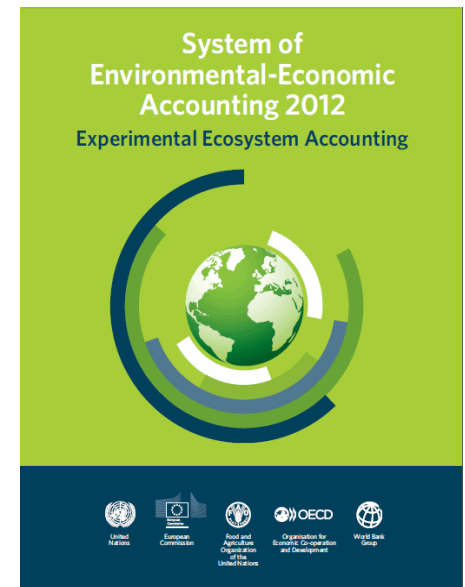
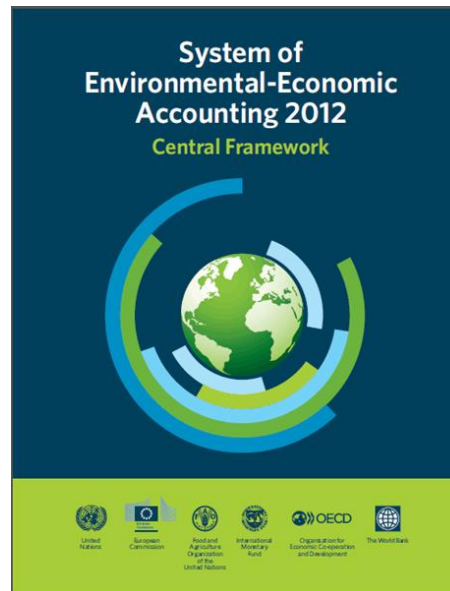
## Objectives and approaches

- ***Design and Implement an integrated accounting system for ecosystems and services at EU level***
- *Develop EU level accounts and support MS is developing accounts*
- *Connect and build on existing projects and data (EU and MS)*
- *Foundation: common data platform of geo-referenced information*

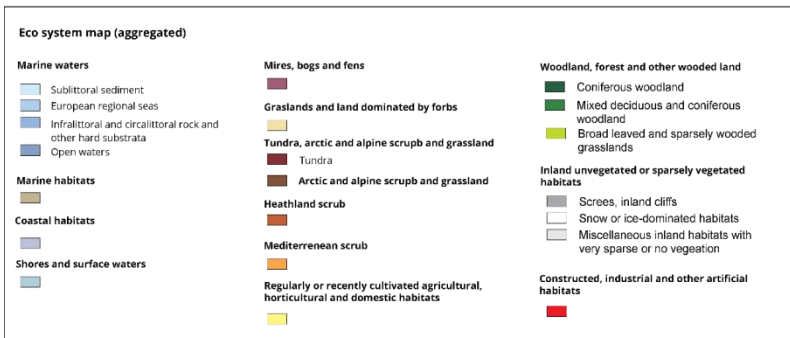
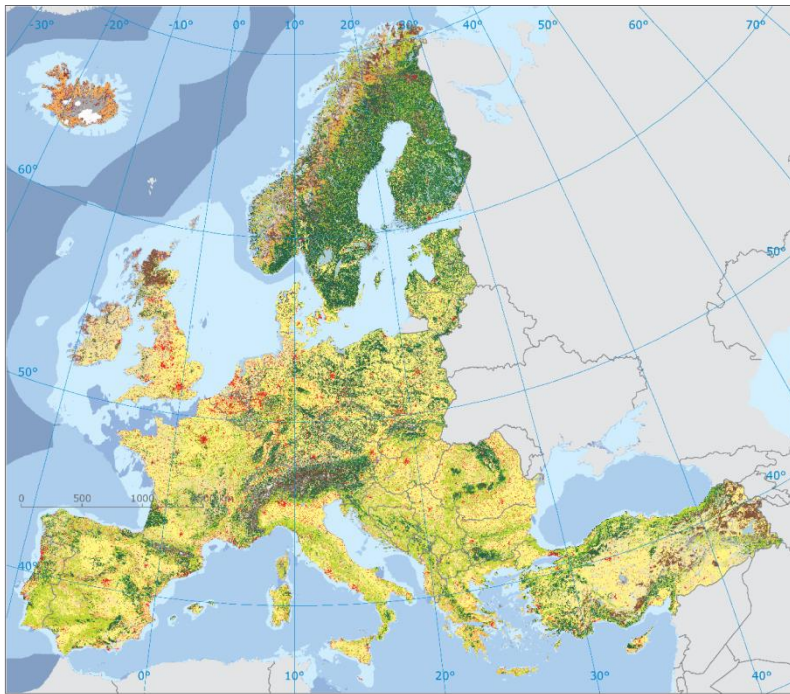
## Objectives and approaches

- *MS data (national regional) to link-in to EU layer*
- *Consistent with UN SEEA EEA framework and provide EU contribution to further development international guidelines*
- *Support the full integration of ecosystem accounts into economic decision making at national and EU level.*

# *EU and UN Accounting frameworks*



# Existing potential input: MAES (ecosystem extent)



Ecosystem type	EUNIS Level 1	EUNIS Level 2	Total ecosystem coverage	
			Area (km <sup>2</sup> )	% area EUNIS level 2 per level 1
Urban	J Constructed, industrial and other artificial habitats	J1 Buildings of cities, towns and villages	102151	46.08
		J2 Low density buildings	94150	42.47
		J3 Extractive industrial sites	6453	2.91
		J4 Transport networks and other constructed hard-surface areas	16100	7.26
		J5 Highly artificial man-made waters and associated structures	1828	0.82
		J6 Waste deposits	998	0.45
Cropland	I Regularly or recently cultivated agricultural, horticultural and domestic habitats	I1 Arable land and market gardens	1243168	99.18
		I2 Cultivated areas of gardens and parks	10292	0.82
Grassland	E Grasslands and land dominated by forbs, mosses or lichens	E1 Dry grasslands	9330	1.35
		E2 Mesic grasslands	571931	82.48
		E3 Seasonally wet and wet grasslands	55771	8.04
		E4 alpine and subalpine grasslands	21128	3.05
		E5 Woodland fringes, clearings and tall forbs stands	0	0.00
		E6 Inland salt steppes	3043	0.44
		E7 sparsely wooded grasslands	32195	4.64
Woodland and forest	G Woodland, forest and other wooded land	G1 Broadleaved deciduous woodland	487970	28.29
		G2 Broadleaved evergreen woodland	49248	2.86
		G3 Coniferous woodland	695907	40.35
		G4 Mixed woodland	291687	16.91
		G5 Lines of trees, small woodlands, recently felled woodlands, early stage woodland, coppice	199784	11.58
Heathland and shrub	F Heathland, scrub and tundra	F1 Tundra	0	0.00
		F2 Arctic, alpine and subalpine scrub	34524	14.88
		F3 Temperate and mediterraneo-montane scrub	52824	22.76
		F4 Temperate shrub heathland	691	0.30

## Main Features KIP INCA

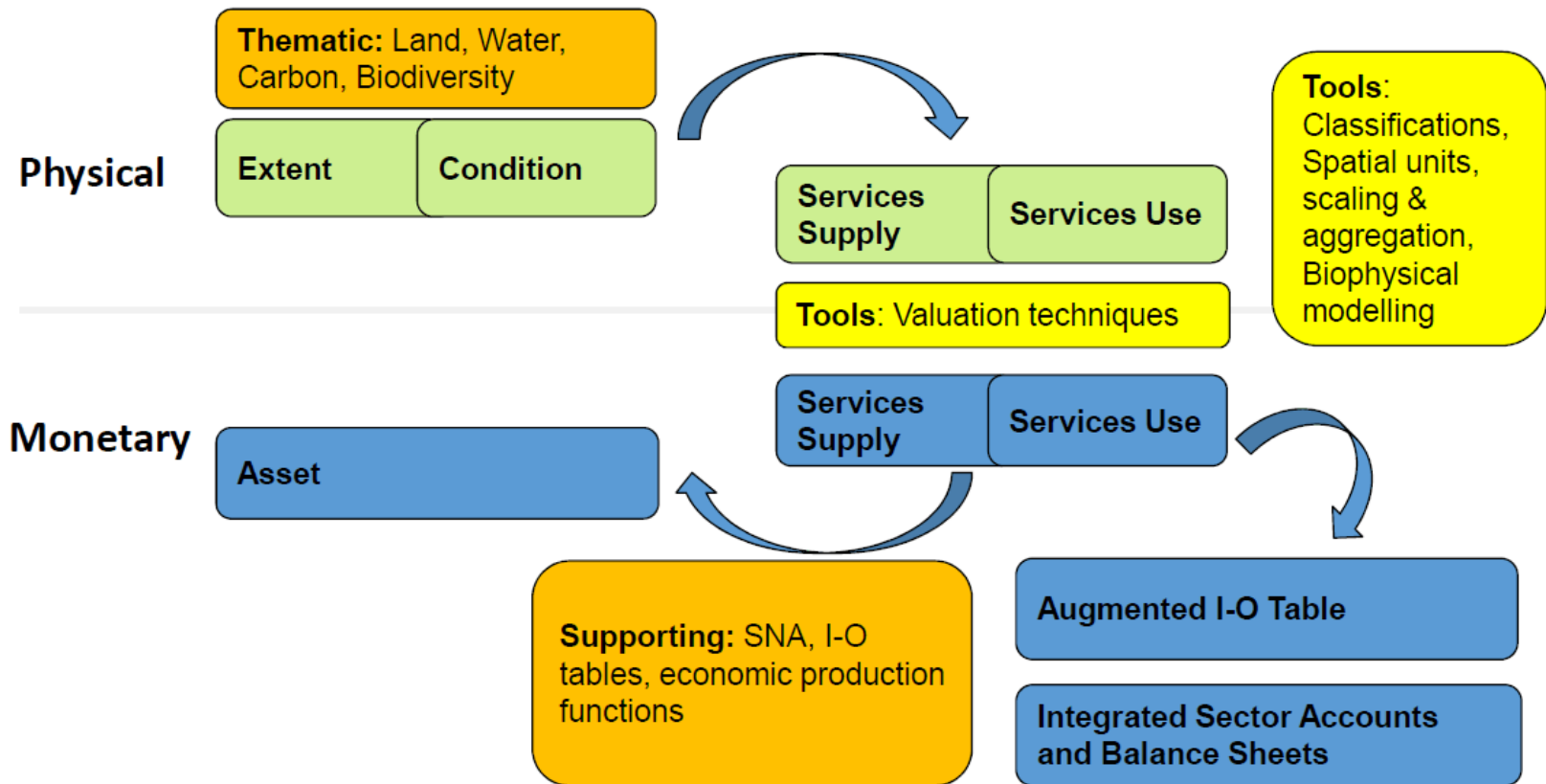
- Data quality and architecture: Integrated geo-spatial data platform - efficient data sharing, production data sets and accounts. Include CORINE/Copernicus data at a Minimum Mapping Unit of 1ha, and possibility higher resolutions.
- Ecosystems: Broad ecosystem types as defined in the MAES initiative would be included.
- Ecosystem Services: Minimum set of ecosystem services would include balance of provisioning, regulatory and cultural services: crops, timber, fish, pollination, water purification, air filtration, carbon sequestration, flood and erosion control, recreation/tourism.

## Main Features KIP INCA

- Types of accounts: ecosystem extent; ecosystem condition; ecosystem service supply and use, experimental asset accounts in monetary terms. Possibly thematic accounts (e.g. land, biodiversity, water, fish). Illustration of integrated accounts.
- Implementation and Pilot projects: Develop EU methodology and data architecture and common data platform. Test and implement pilot accounts with Member States. Piloting will produce "first of its kind" results, demonstrate progress in the EU and contribute to developments at international level.



# Components of ecosystem accounting (SEEA EEA)



## Main Lines of work KIP INCA

- 1. Data foundation and architecture:** lead EEA, JRC, Eurostat
  - 2. Ecosystem extent account:** lead EEA
  - 3. Ecosystem condition account:** lead EEA, ENV
  - 4. Ecosystem services account:** lead JRC, ENV
  - 5. Monetary valuation:** lead JRC, ENV, Eurostat
  - 6. Use and applications:** lead ENV, JRC, Eurostat, RTD, EEA
  - 7. Interaction with Member States** all
- **Coordination:** Eurostat

## Indicative roadmap

KIP-INCA components	2017	2018	2019	2020 (and beyond)
Data foundation and architecture	CORINE & Copernicus Data architecture & pilot tools developed	Copernicus High Resolution Layers (HRL) (part) Integration of LUCAS and sector statistics in geospatial platform	Copernicus HRLs (all) Integration of reporting data (Nature directives, WFD) etc. in geospatial platform	Copernicus HRLs (all) Integrated EU data sets Integration of Member States data in geospatial platform
Ecosystem extent account	Tier 1 completed (MAES x CORINE) → pilot account	Tier 2 under testing Tier 3 under development	Tier 2 completed (MAES x CORINE x Copernicus) Tier 3 under testing	Tier 3 completed (EUNIS x CORINE + Copernicus HRLs) → full accounts
Ecosystem condition account	Methodological approach consolidated building on MAES work streams	Application of approach on basis of available data → pilot account	Refinement of approach and improvement of data foundation on basis of experience in pilot accounts	Roll-out of refined methodology and update of data foundation → full accounts
Ecosystem services accounts	Development of first batch of accounts → pilot account	Improvement of related models and data foundation Update of 1st accounts	Updating and development of remaining batch of accounts → updated pilot accounts	Roll-out of refined methodology and update of data foundation → full accounts

## Indicative roadmap

KIP-INCA components	2017	2018	2019	2020 (and beyond)
(Monetary) Valuation	Development of methodological approach	Application to first set of ecosystem service flows → first pilot account	Review and refinement Application to second set of ecosystem service flows	Roll-out of refined methodology → full pilot accounts
Use and applications	First pilot EU accounts and methodologies Use of ecosystem service accounts as input to CAP review as far as possible	Review of pilot EU accounts and methodologies as input to policy & Green Economy discussions, and first experiments in EU MS.	Use of accounts in analysing trends in green infrastructure and marine policies	Use of refined accounts for better management of natural capital, e.g. in Natura 2000 areas Regular production of key indicators
Interaction with Member States	Horizon 2020 action and statistical grants: call for proposals to champion and pilot work with EU MS. Reporting to MAES WG & Eurostat Directors group & WG Workshops on selected technical issues	Horizon 2020 action and statistical grants: launched to champion and pilot work with EU MS. Reporting to MAES WG & Eurostat Directors group & WG 1 <sup>st</sup> EU conference on natural capital accounting	Horizon 2020 action work and statistical grants: initial results published Combined statistical & MAES working group formed Further technical workshops	Horizon 2020 action and statistical grants: publication of outcomes Statistical & MAES working group regular meetings 2 <sup>nd</sup> EU NCA conference

# Report

- Public version of report available on CIRCA
- Aim to develop this into a MAES report
- Welcome input from interested parties
- Deadline?

Thank you for your attention!

