Classification(s) of ecosystem services

a) Brief overview of current work with US-EPA and planned next steps

b) Key issues arising from CICES review process and for implementing SEEA EEA ecosystem service accounts

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a) Key steps in comparative exercise (Europe & US)

- Informal cooperation between EEA, US-EPA and Univ. of Nottingham (Roy Haines-Young)
- Follow-up to UNSD expert meeting in June 2016
- Involves CICES, FEGS and NESCS

<u>Next milestones:</u>

- ➢ Expert meeting in Wageningen on 17-18 Nov.
- ➢ Input to ACES ES research conference, Dec. 2016
- ➢ 2nd UNSD hosted expert meeting in NY, Q1 2017
- ➢ Feedback to UNCEEA or next London group 2017

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Key outcomes of UNSD expert meeting in June 2016

- Helpful for advancing mutual understanding
- Further work needed for shared interpretation of technical terms (service, good, benefit etc.)
- Agreement on further steps & some issues:

➢ Classification(s) to include also *potentially final* ESS as real-life use is context dependent

➢ Classification(s) to build on a modular approach (modules for ESS, ecosystem units, beneficiaries)

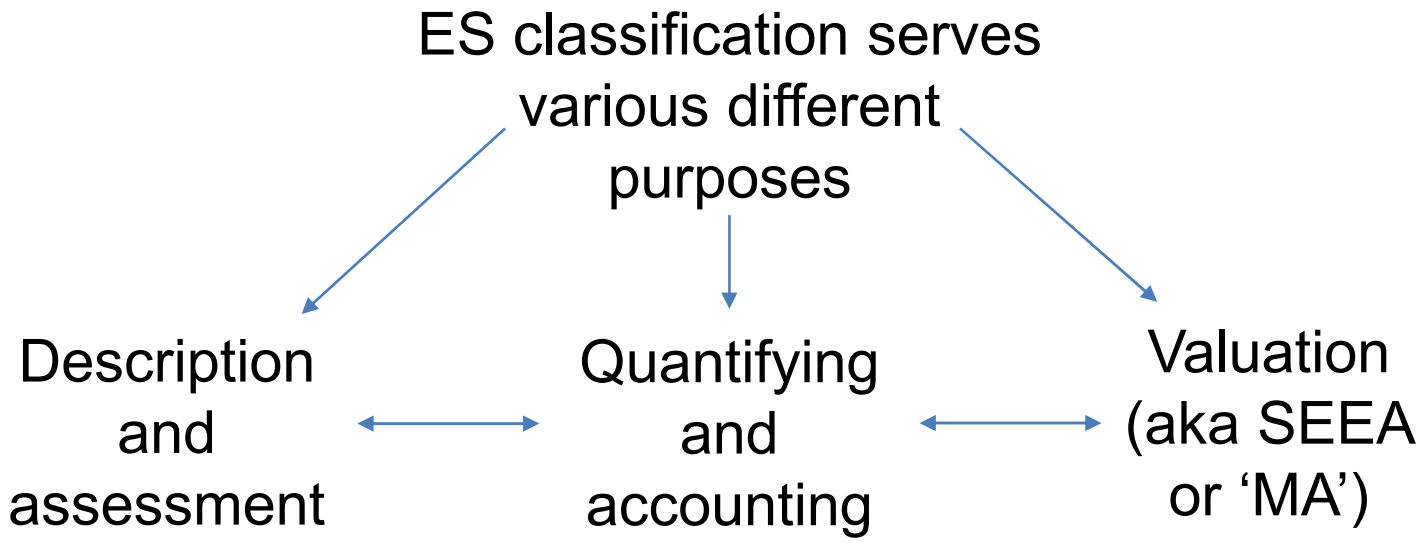
➢ Separate classification for abiotic 'service flows'

➢ CICES to be revised and tested together with FEGS & NESCS on specific case studies

b) Key issues for ecosystem service accounting

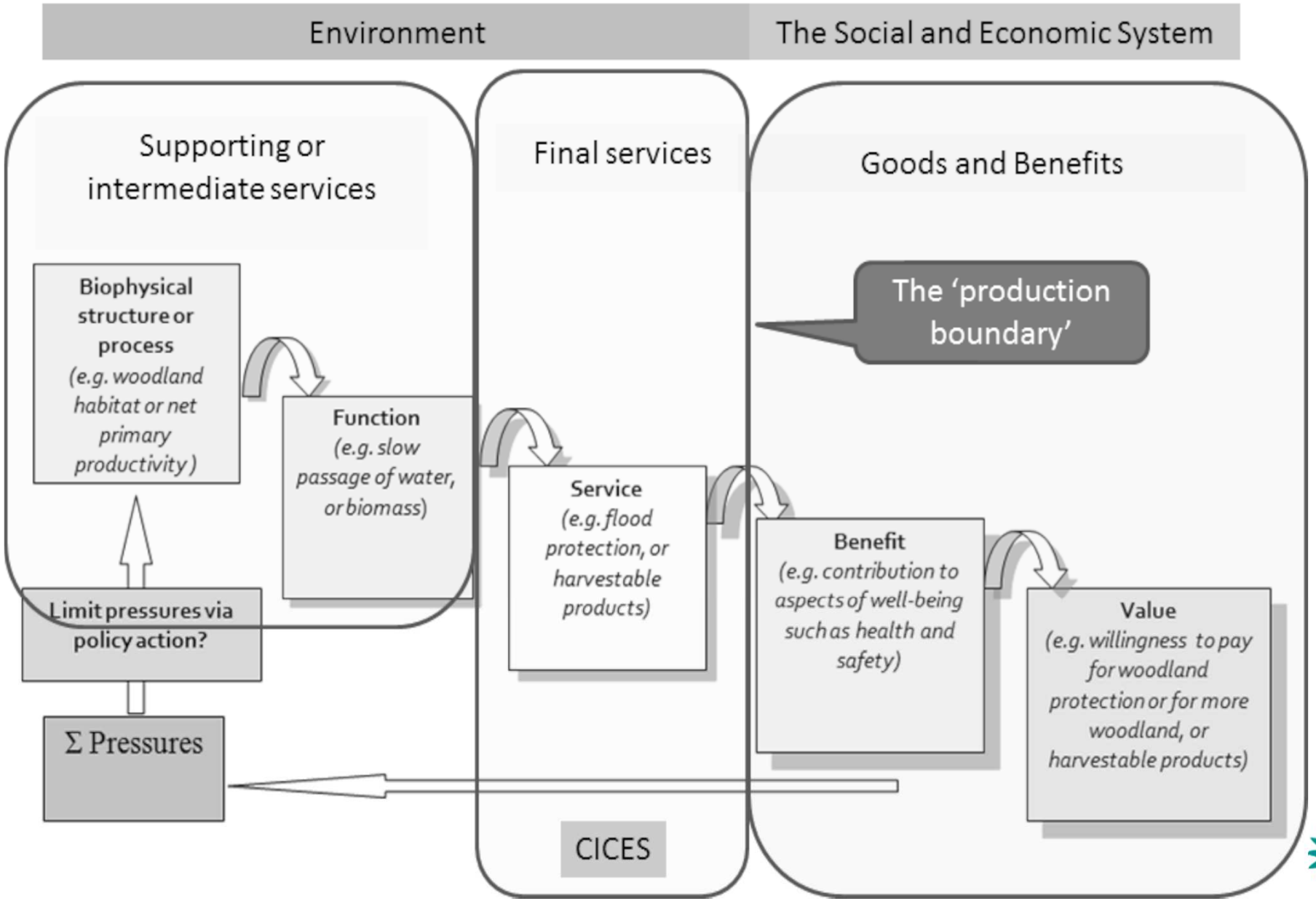
- CICES has developed in an iterative process a sequence of expert proposals & user surveys
- V 4.3 was published in January 2013 – timely now to harvest user feedback for a final (?) improvement
- Also: adjustments required in SEEA EEA context
- Note: CICES aims to be a multi-purpose classification

ESS: understanding – measuring – valuing



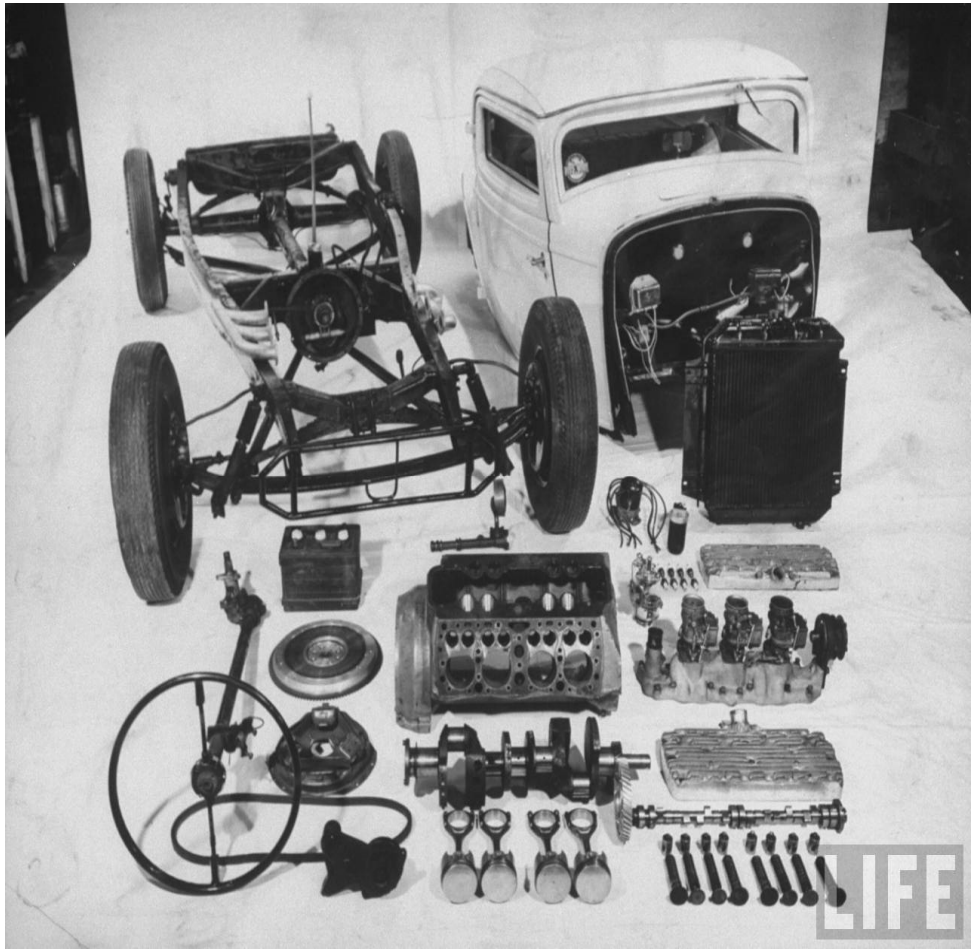
The definition of the 'production boundary' or what are 'final services' differs between these different analytical approaches.

The ecosystem services cascade model

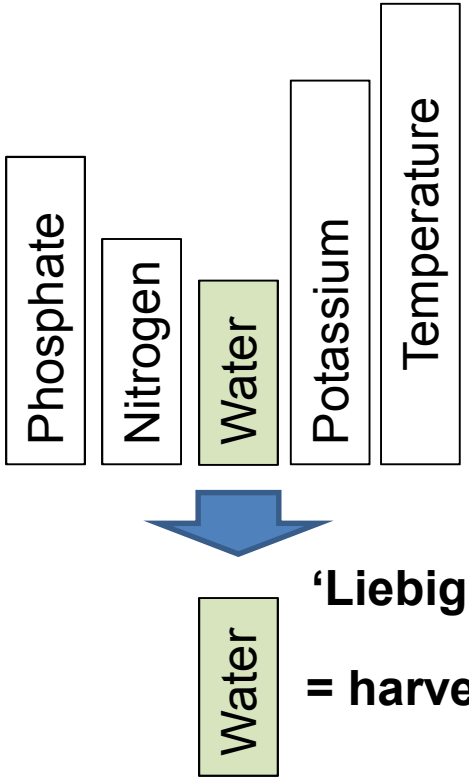


Can we really disentangle different production factors?

What is the % share of different car parts in making it run?



Agronomy / ecosystems :



‘Liebig’s law’

= harvest

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Aggregation: how and what for ?

SEEA EEA: **Table 3.2 Physical flows of ecosystem services for an EAU**

	Type of LCEU				
	Forest tree cover	Agricultural land*	Urban and associated developed areas	Open Wetlands	…
Type of ecosystem services (by CICES)					
Provisioning services	e.g. tonnes of timber	e.g. tonnes of wheat			
Regulating services	e.g. tonnes of CO_2 stored/released	e.g. tonnes of CO_2 stored/released	e.g. tonnes of CO_2 stored/released	e.g. tonnes of P absorbed	
Cultural services	e.g. number of visitors/hikers		e.g. hectares of parkland	e.g. hectares of duck habitat	

* Medium to large fields rainfed herbaceous cropland

General structure of CICES (4.3)

Aggregation is feasible from right to left, but not foreseen per column

Section	Division	Group	Class	Class type
Provisioning	Nutrition	…	…	…
	Materials	…	…	…
	Energy	…	…	…
Regulation and maintenance	Mediation of waste, toxics etc	…	…	…
	Mediation of flows	…		…
	Maintenance of phys., chemical and biolog. conditions	1) Lifecycle maintenance etc 2) Pest and disease control 3) Soil formation 4) Atmosph. & climate regulation	Ad 1) - Pollination and seed dispersal - Maintaining nursery populations and habitats	'By amount and source'
Cultural	Phys. & intellectual interactions	…	…	…
	Spiritual, symbolic and other interactions	…	…	…
		…	…	…

Some final reflections

- Quite a bit of work ahead but we have a clear roadmap
- In the ‘US-Europe comparison’ we are now in a space that focuses on mutual learning rather than competition
- Important to keep any system simple for practical use
- Data availability is important when further reviewing ES classifications in an application perspective
- Personal view: learning from each other and developing better implementation guidance is more productive than arriving at a final harmonised SEEA classification of ESS

Thank you very much for your attention!

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