

# The Common International Classification of Ecosystem Services (CICES): Development and Challenges

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# Overview

- What is CICES?
- Why was it developed and what's it used for?
- What are its strengths?
- What are its limitations?
- What do we need to do next?

# Some background....

## WHAT IS CICES?

- A hierarchical classification of 'final ecosystem services'

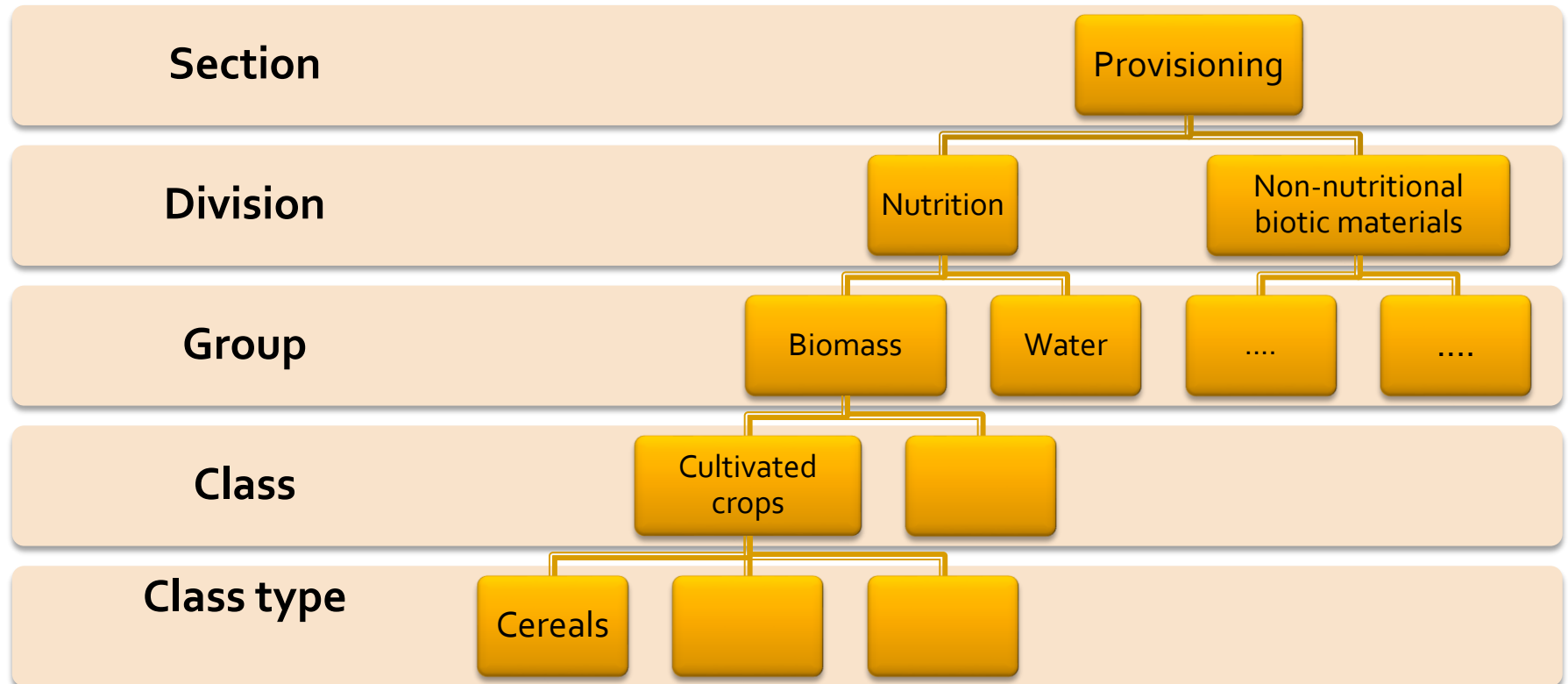
Section	Division	Group
Provisioning	Nutrition	Biomass
		Water
	Materials	Biomass, Fibre
		Water
	Energy	Biomass-based energy sources Mechanical energy
Regulation & Maintenance	Mediation of waste, toxics and other nuisances	Mediation by biota
		Mediation by ecosystems
	Mediation of flows	Mass flows
		Liquid flows
		Gaseous / air flows
	Maintenance of physical, chemical, biological conditions	Lifecycle maintenance, habitat and gene pool protection
		Pest and disease control
		Soil formation and composition
		Water conditions
		Atmospheric composition and climate regulation
Cultural	Physical and intellectual interactions with ecosystems and land-/seascapes [environmental settings]	Physical and experiential interactions
		Intellectual and representational interactions
	Spiritual, symbolic and other interactions with ecosystems and land-/seascapes [environmental settings]	Spiritual and/or emblematic
		Other cultural outputs

## WHY WAS IT DEVELOPED?

- To help standardise terminology for the development of environmental accounts as part of the revision of SEEA

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# CICES: Hierarchical Structure



Version 4.3 – see [www.cices.eu](http://www.cices.eu)

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# Some background....



Mapping and Assessment of  
Ecosystems and their Services

**EU Biodiversity  
Strategy to 2020,  
Action 5**

## WHY WAS IT DEVELOPED?

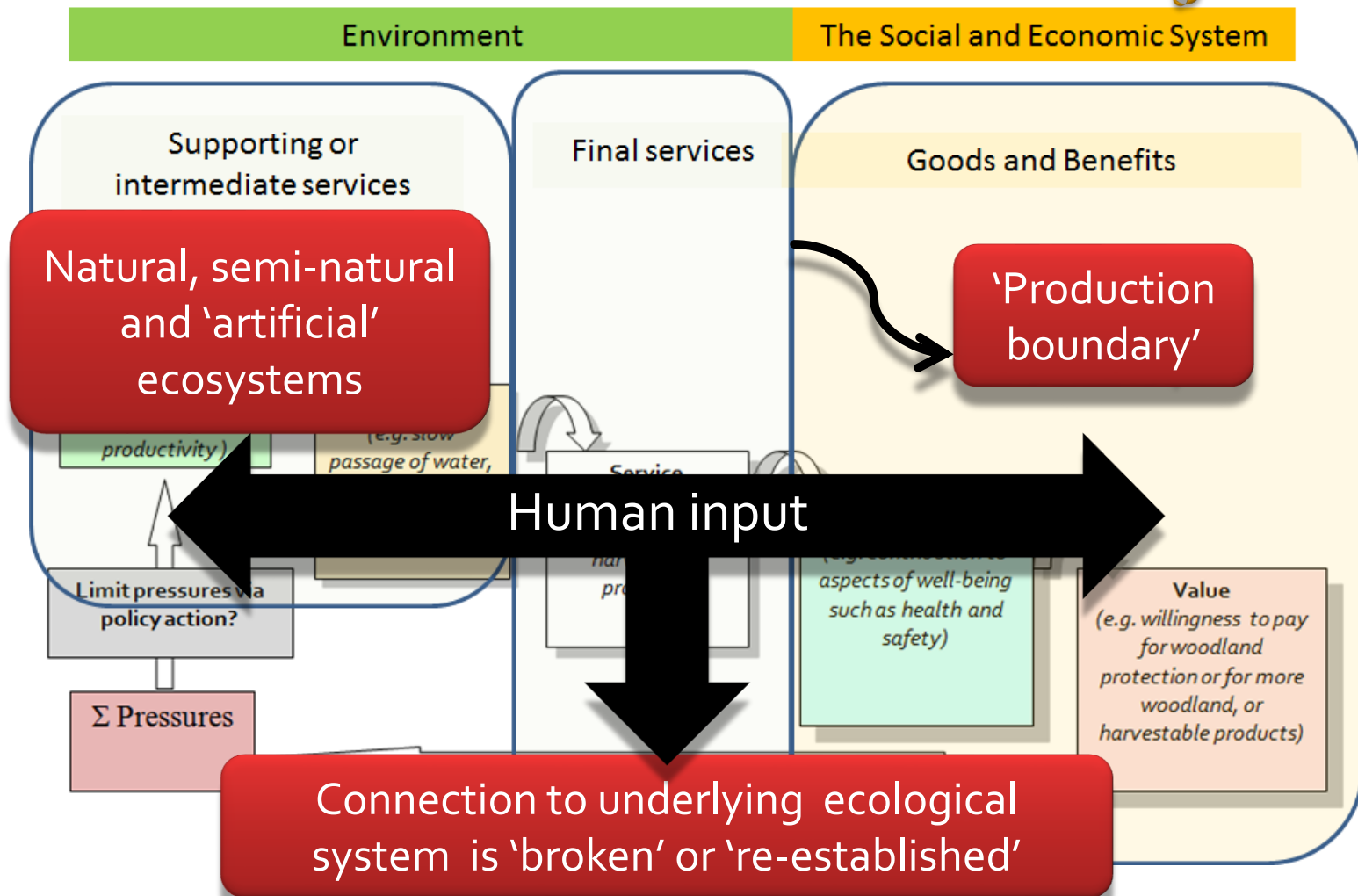
- To help standardise terminology for the development of environmental accounts as part of the revision of SEEA

## WHAT IS IT USED FOR?

- Accounting and Mapping
- Valuation
- Ecosystem assessments

# Some background.....

The 'realm'  
where things  
can be valued

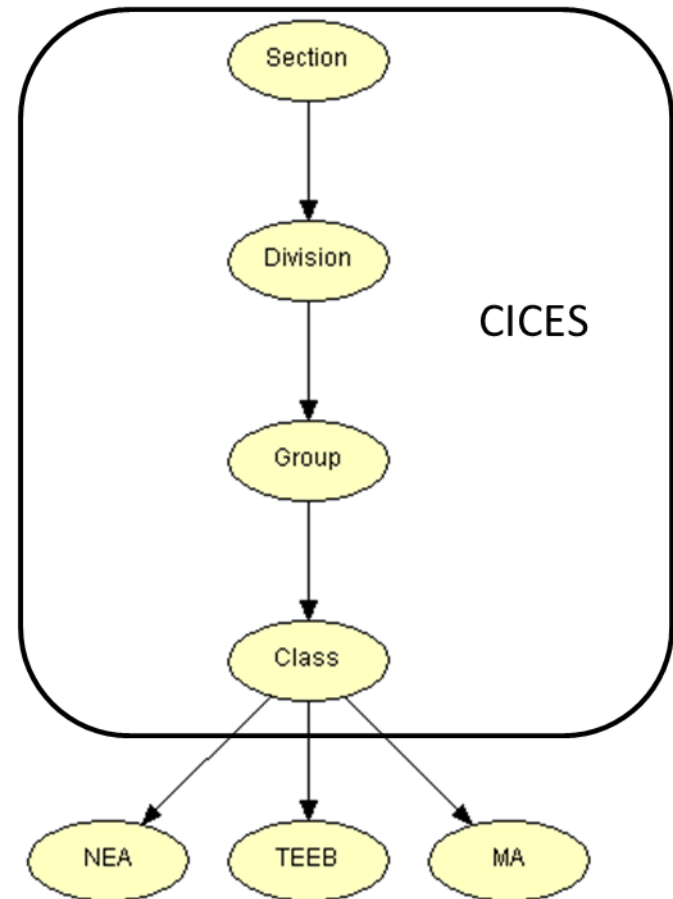




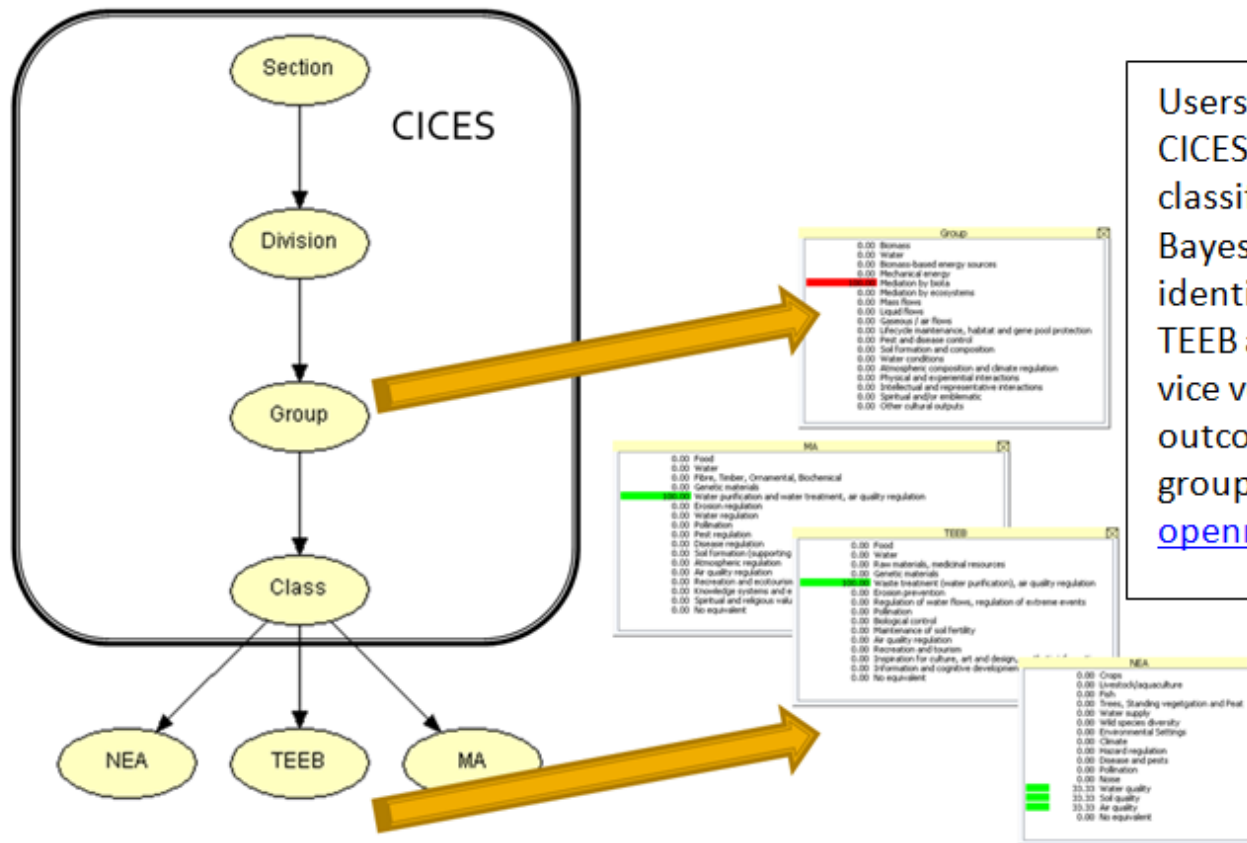
# Some strengths.....

Some strengths

- Built through a 'consultative process'
- Attempts to be 'comprehensive'



# Some strengths.....

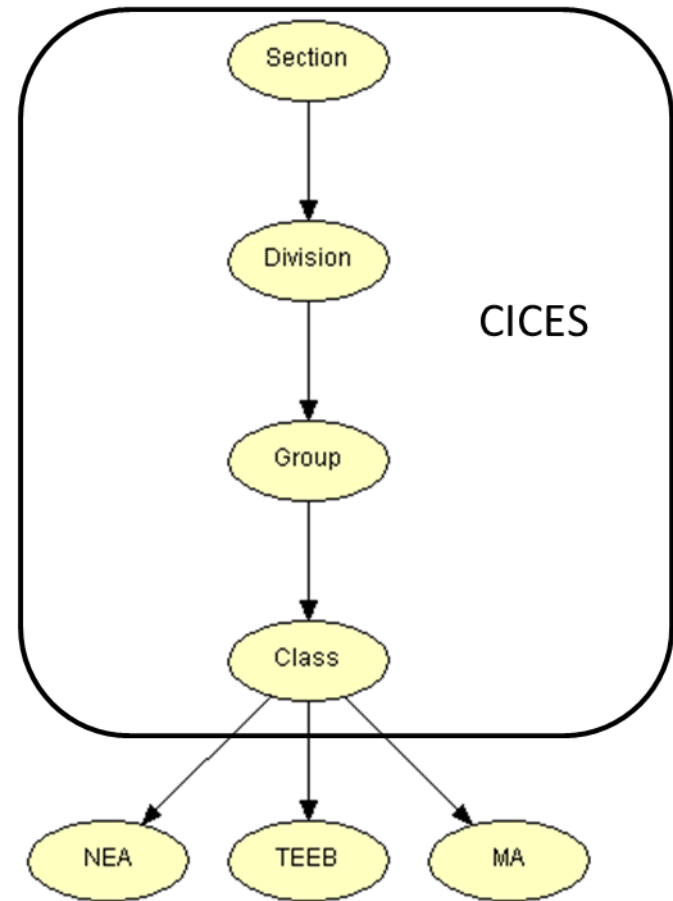


Users select a service category in CICES at any of the levels in the classification and the web-based Bayesian Belief Network tool identifies the equivalents in the MA, TEEB and the UK NEA systems, and vice versa. The example illustrates the outcome for one service type at the group level in CICES. See: [openness.hugin.com/example/cices](http://openness.hugin.com/example/cices)

# Some strengths.....

## Some strengths

- Built through a 'consultative process'
- Attempts to be 'comprehensive'
- Hierarchical structure allows flexibility of application
- Can be 'customised'

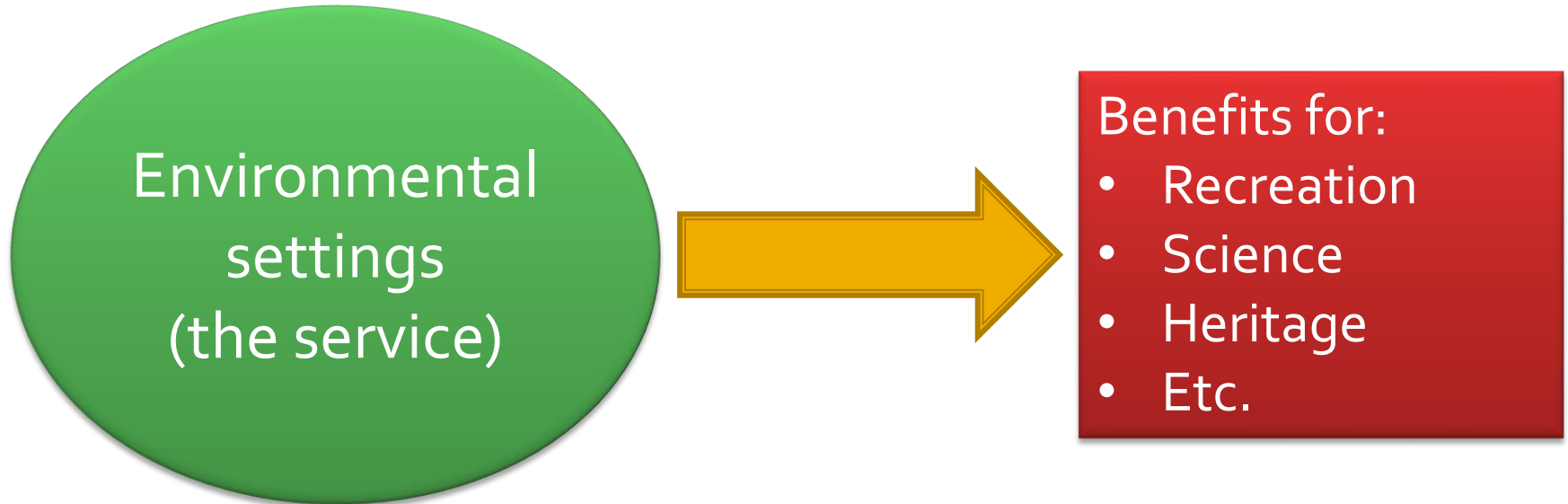


# Some weaknesses....

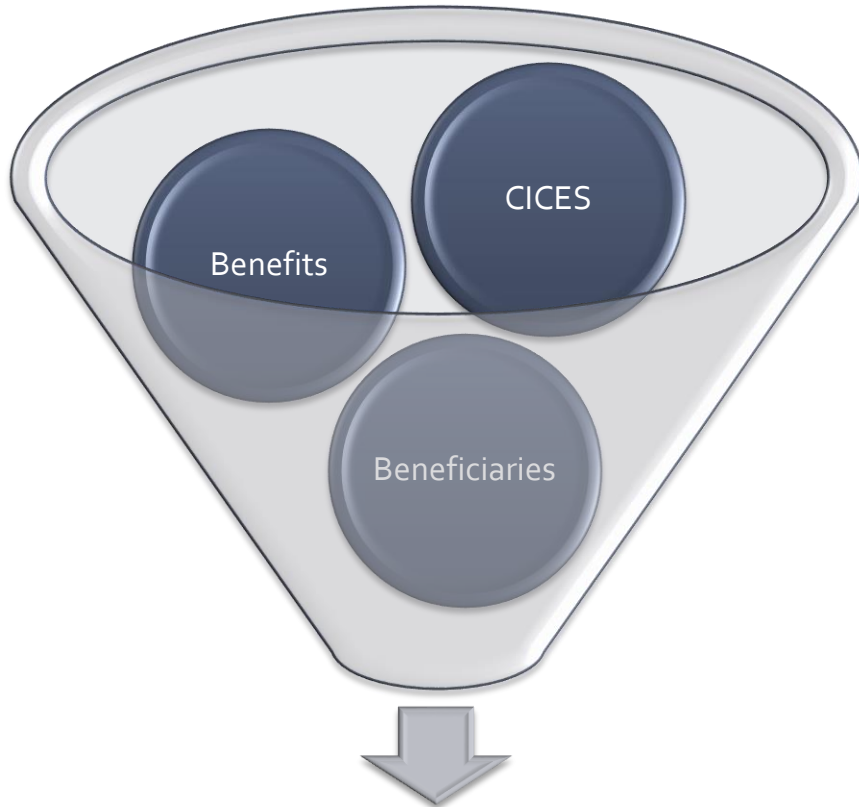
- Built through a 'consultative process'
  - Consultation vs design
- Classification [almost] limited to those dependent on biotic processes
  - What about abiotic outputs from ecosystems?
  - But if we include them where do we stop?

# Some weaknesses....

- Confusion between 'services' and 'benefits', especially within the cultural division



# What do we need to do next?



Integrated system?

- Providing a typology for describing 'benefits' and 'beneficiaries'
  - Classification of products and activities
- Capturing the indicators and metrics people have used to characterise the different services
- Tools and 'apps' to help the user

# What do we need to do next?

For CICES, we are in an operational and testing phase and need to capture that experience

- EU ~ EEA propose a round of consultation early in 2015
- MAES mapping and accounting initiatives
  - ESMERALDA
  - BISE
- National assessments
- EU-funded projects
  - OpenNESS
  - OPERAS
  - ...

# Acknowledgement

- [www.cices.eu](http://www.cices.eu)
- [www.openness-project.eu](http://www.openness-project.eu)
- [www.nottingham.ac.uk/CEM](http://www.nottingham.ac.uk/CEM)