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Sustainable biomass availability

Ben Allen

17 October 2015

Introduction (1)

- Using biomass for energy and other aspects of the bio-economy continues to be a major opportunity for growth, jobs and the environment.
- Moving into a new phase:
  - New technology – new resource base
  - Overlapping sectoral interests and competing demands (energy, materials, services)
- Learning more about critical inter linkages around food, energy, wastes and the wider bio-based sectors.

Introduction (2)

- Future planning requires investment certainty to take emerging technologies to commercial scale and sustain them.
- Changing political landscape
  - ILUC directive; Waste to Energy com; Circular Economy package; new biomass policy; 2030 C&E package etc.
- Key questions
  - **What is the scale of the resource?**
  - **How can we use it sustainably?**

Why is sustainability important?

Sustainability:

- stable supply chain
- Safeguards from future policy change
- Establishes bioenergy's role in the bio-economy

This in turn ensures

- Commercial viability
- A healthy environment and improved resource efficiency

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Current assessments of scale

- Numerous attempts to quantify availability

- Huge variation in figures and units (mostly explainable)

1.5mha **20mha** **224mt**

314mt **16%** **6,700PJ**

16.7mODT **22,700PJ**

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Why are assessments so varied?

- Objectives and parameters of study
- Differing views on sustainability
- Type and version of data used in the analysis
- Different understanding and interpretation of data
- Modeling assumptions, e.g. yield increases, waste vol.

New assessments

Understanding is key to moving forwards

- Common view of sustainability
- Data and how to use it
- Ask the right questions
- Understand the context

What do we mean by resource?

Primary biomass
Production drives resource use

Residual biomass
Resulting from biomass production + management but is not the primary output

Waste biomass
Results from previous consumption or discards. does not drive production or resource use


Dedicated energy crops


Dedicated forest biomass


Conventional food and feed


Algae and micro organisms


Landscape management


Industrial residues


Agricultural and forestry residues


Industrial waste


Municipal waste including UCO and food waste

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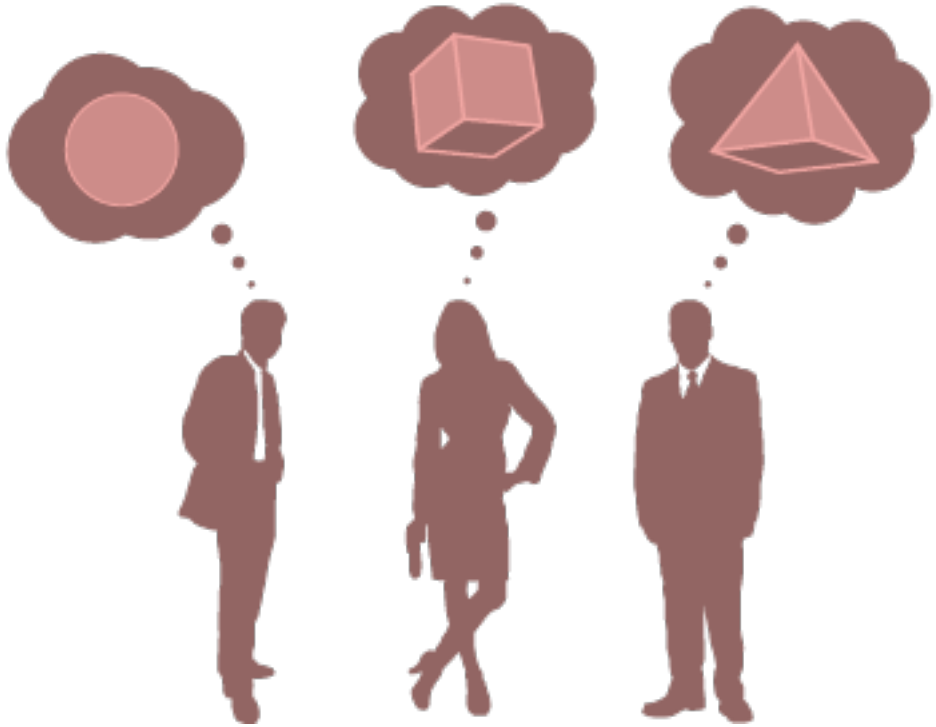
A common view of sustainability

- Agreement between industry and civil society
  - Improves understanding and trust
  - Helps set future trajectory for the sector
  - Establishes boundaries



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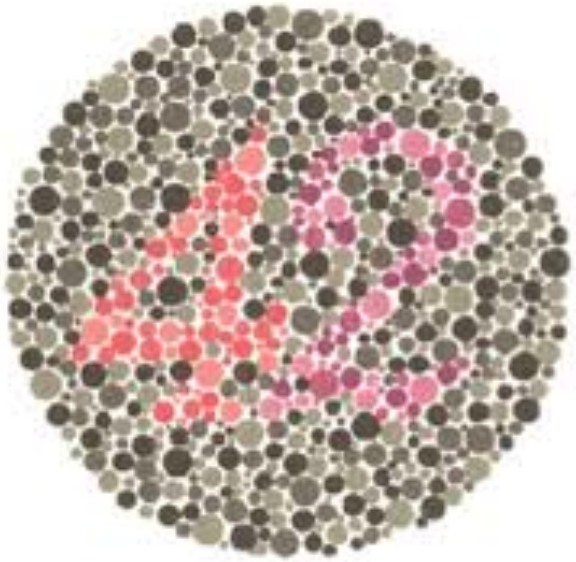
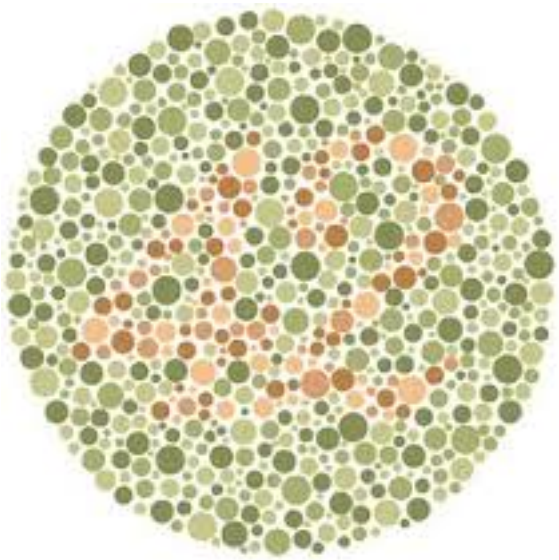
Data use and interpretation

- Does it exist and are there gaps?
- Is it subjective and what was it designed for?
- Definitions and terminology vary considerably, meaning different things to different sectors.
- Understanding what the numbers mean is critical.





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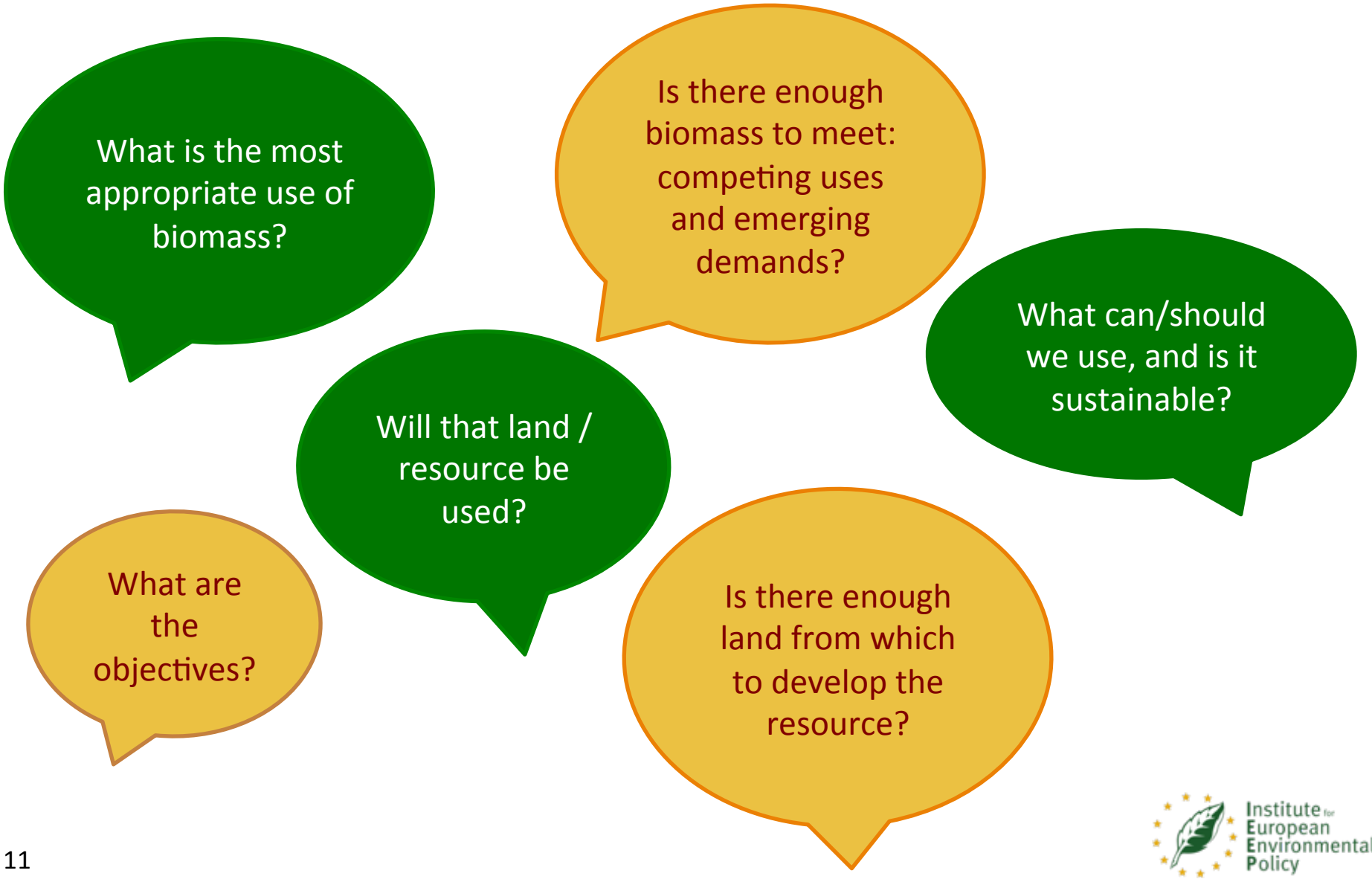
Ask the right questions



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Understand the answer - context is everything

- Agreeing on sustainability and understanding data only provides the theory.
- Decision to use and mobilise resources rests with thousands of individuals.

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Summary

- Significant potential….
- but important to understand the **scale**
- Understand what we mean by resource
  - Agree on **sustainability**
  - Understand the **data**
  - Ask the right **questions**
  - Understand the **context** of decisions

It is possible and has been done!

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Thank you for your attention

ballen@ieep.eu

+44 (0) 20 7340 2682