



# Value in EO Workshop

## Round Table III: Measuring socio-regulatory impacts

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# Overview

DPa

	ECONOMIC	ENVIRONMENTAL	REGULATORY	INNOVATION & ENTREPRENEURSHIP	SCIENCE & TECHNOLOGY
Farming in Denmark	☆☆☆	☆☆☆	☆☆☆	☆☆☆☆☆	☆
Flood management in Ireland	☆☆☆	☆	☆	☆	☆
Ice navigation off Greenland	☆☆☆☆	☆☆	☆	☆	☆☆☆
Farming in Poland	☆☆☆	☆☆☆	☆☆☆	☆☆☆☆☆	☆
Winter navigation in the Baltic	☆☆☆☆☆	☆	☆	☆	☆
Forestry management in Sweden	☆☆☆	☆	☆☆☆☆☆	☆☆	☆☆
Infrastructure management in the Netherlands	☆☆☆☆	☆	☆	☆☆☆	☆
Growing potatoes in Belgium	☆☆☆	☆☆☆	☆☆	☆☆☆	☆☆☆

# The Nordic Forestry cycle

## The Nordic forestry cycle

average  
~ 5 ha/object  
190 m<sup>3</sup>/ha  
40 000 cutting  
notifications yearly

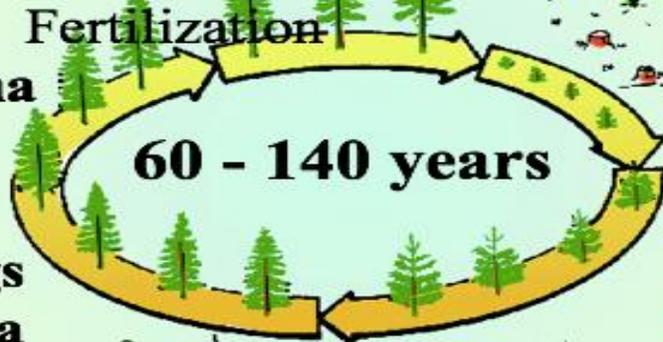
**Final felling**  
1 - 15 ha/object  
300 - 1000 stems/ha  
100 - 600 m<sup>3</sup>/ha

**(0) 1 - 4 thinnings**  
each 30 - 70 m<sup>3</sup>/ha

average 50 m<sup>3</sup>/ha

**Establishment**  
planting, sowing,  
natural regeneration

**Shelter and  
seed  
trees**



**Pre-commercial thinning**  
1.5 - 5 m height

1200 - 3000 stems/ha



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# Value of EO in 'regulatory cases'

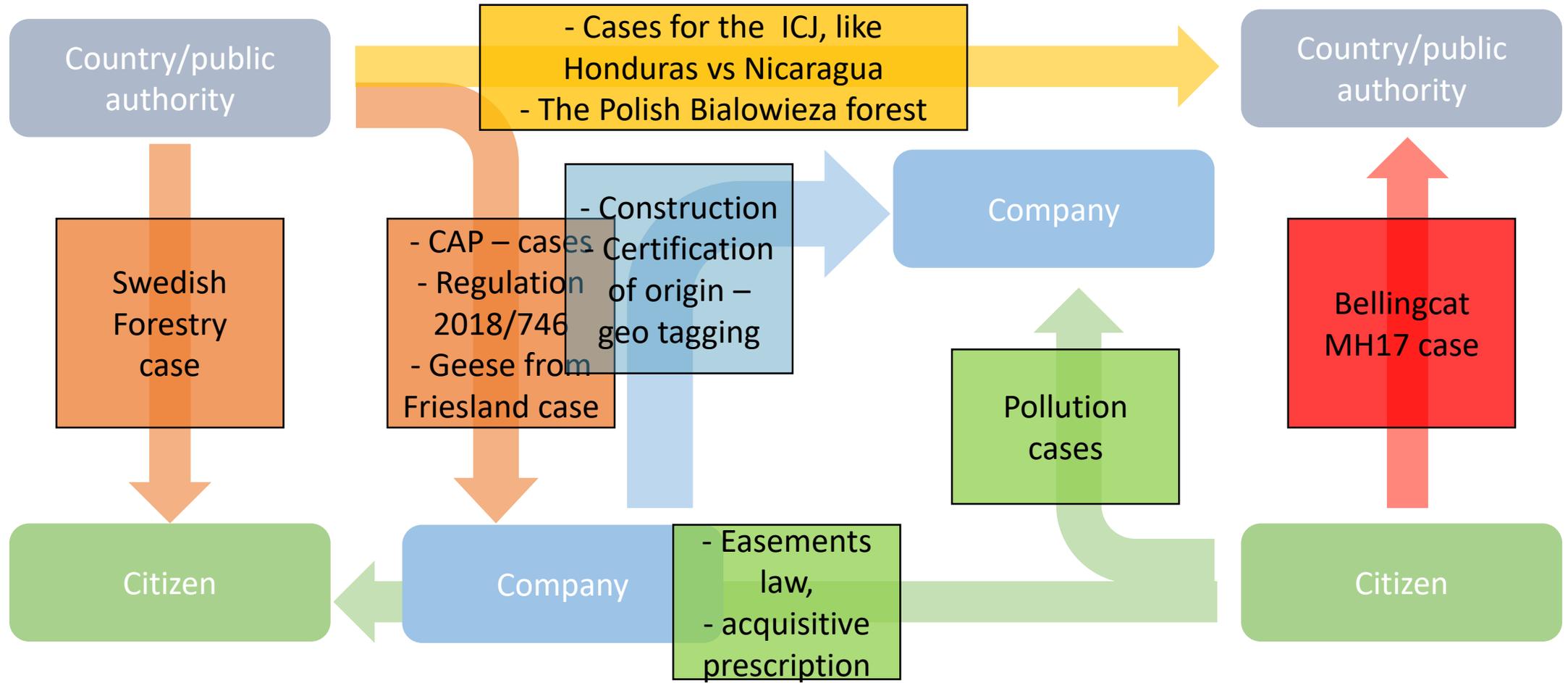
- Combination of the 'principal - agent theory' combined with transaction costs model
- the existence: fact that imagery represents the truth and the fact that everybody agrees that it is the truth
- the amount of value:
  - Transaction cost reduction:
    - the resources saved that needed to get to the same information position
      - Costs of fte's needed
      - Costs of aerial photographs
      - the opportunity costs of those efforts
    - The lower bondage costs of the forest owners
    - The reduction of the dead weight loss: non compliance and not caught is minimal
  - The benefits of the compliance (doing the right thing)
    - Long term higher yields timely planting and pre-commercial thinning
    - Side benefits like environmental gains, better quality of life



# Expanding to 'compliance cases' - features

- Agreement on existence of the **basis of compliance**
  - A situation where there is an agreement between parties that one party has an obligation and the other party has a right of fulfillment of that obligation
  - This can be based on a statutory law, but also on an agreement, or even a principle like a human right
- System and process in place that allows for **enforcement**
  - There needs to be a system that allows for checking of the fulfillment of the obligation and an effective sanction in case of non-compliance

# Compliance and EO data – food for thought



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Thank you!

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