



PACKALL

PackAlliance:
European alliance for innovation training
& collaboration towards future packaging

Linking **Academy** to **Industry**.

Training program module no.2: New materials and biomaterials

Topic: Economic assessment and the value of bioplastic materials

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Value

- can be perceived as a **benefit** that a person derives from a good or service.

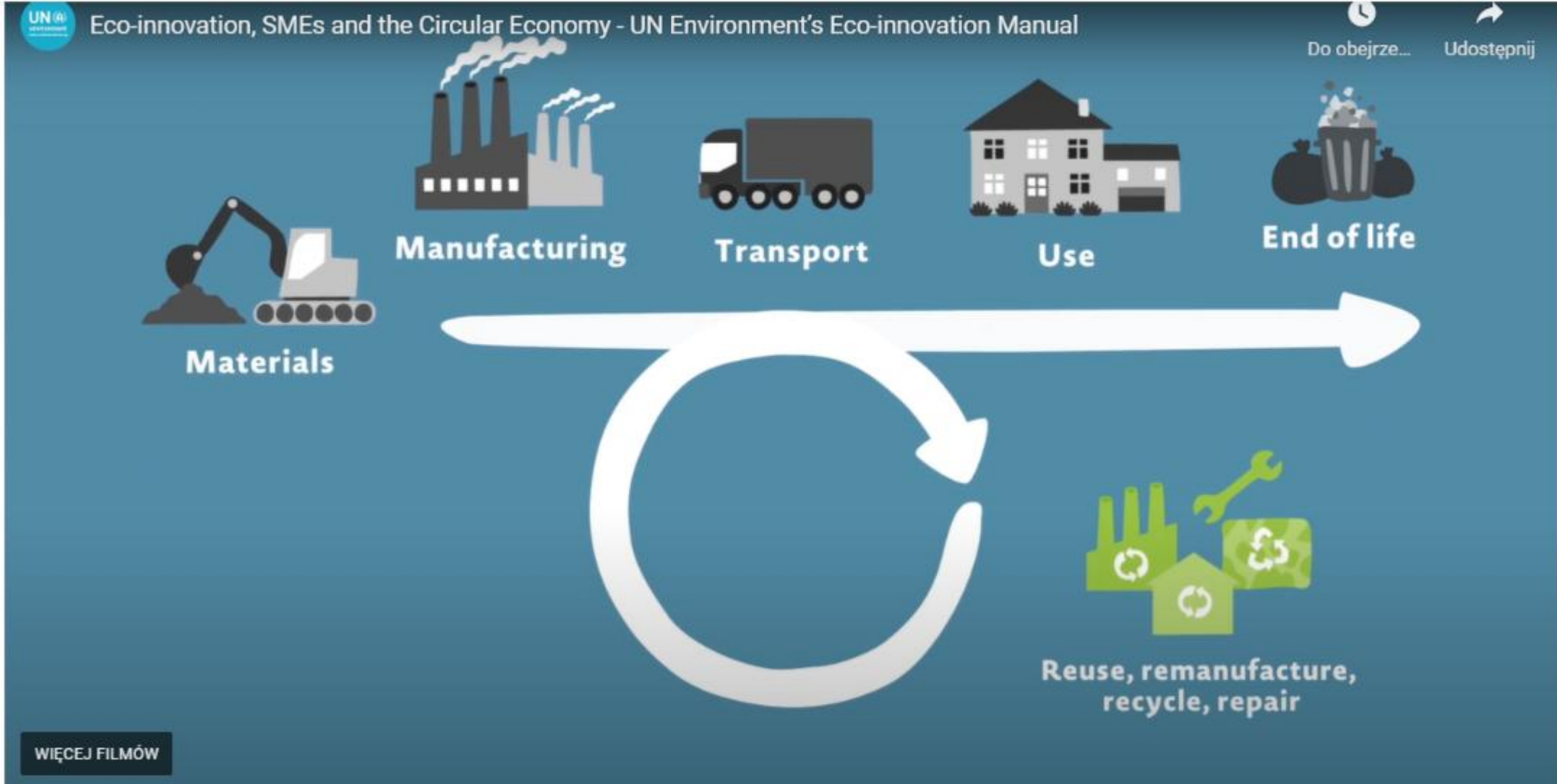
Economic Value

- is the **value that a person places on an economic good or service**, based on the **benefit** they get from it.
- It is often estimated based on the person's **willingness to pay** for the good. [1]
- It is measured in the **units of currency**.
- Economic value is subjective and difficult or impossible to measure. -> WHY? -> we all have different preferences
- there are approaches to estimating economic value.

Market Value

- market price for a good or service which can be higher or lower than the economic value that any particular person puts on a good. [1]

[1] „Economic Value Definition (investopedia.com)” by CAROLINE BANTON, reviewed by ERIC ESTEVEZ.





The diagram illustrates the product life cycle of bioplastics, centered around a circular arrow with a bioplastic jar icon. The cycle is divided into five stages: Manufacturing (represented by a factory icon), Transport (represented by a truck icon), Use (represented by a house icon), Reuse, remanufacture, recycle, repair (represented by a recycling symbol and a wrench icon), and Materials (represented by an excavator icon). The background is orange, and the text is white and green.

Eco-innovation, SMEs and the Circular Economy - UN Environment's Eco-innovation Manual

Do obejrze... Udostępnij

Transport

Use

Manufacturing

Reuse, remanufacture, recycle, repair

Materials

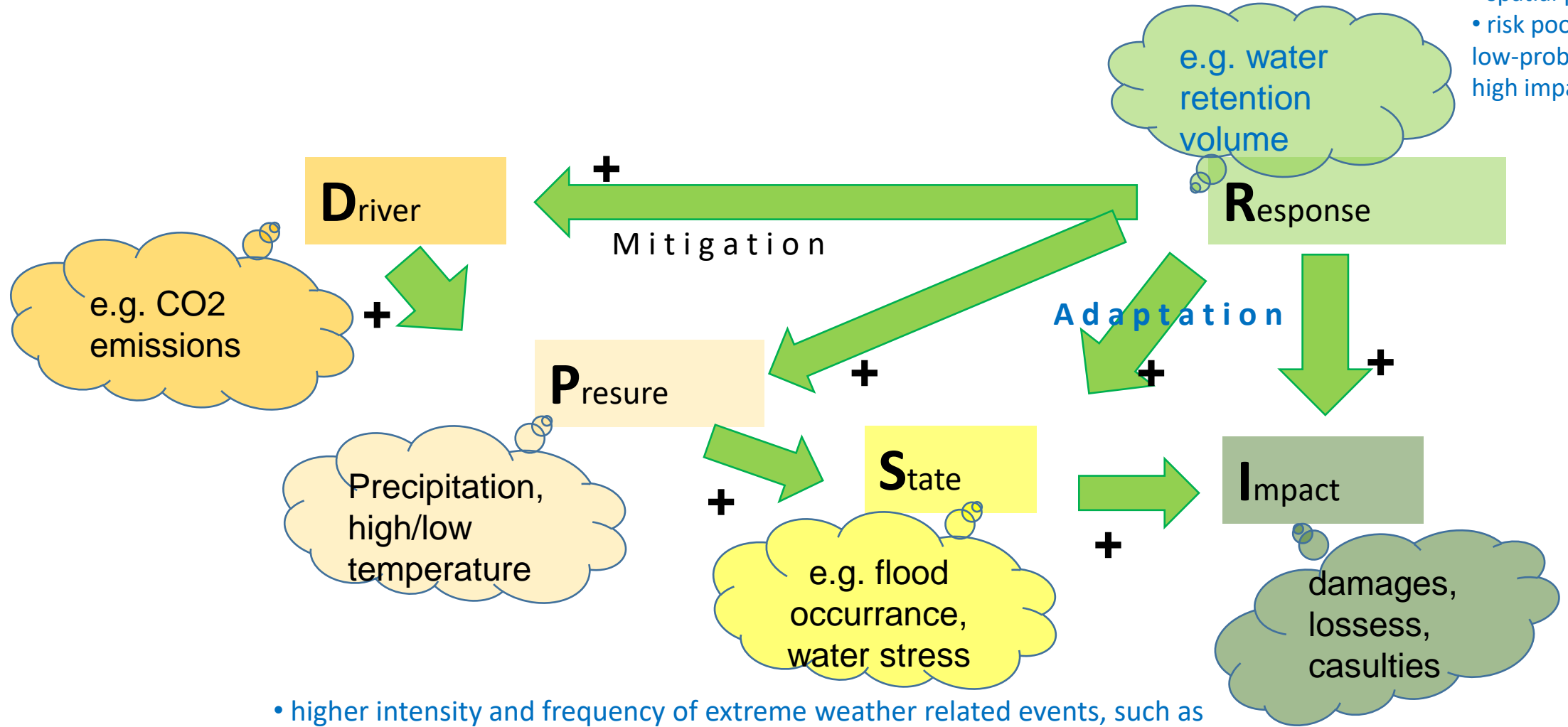
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Features of bioplastics

- can be biodegradable / not biodegradable
- can be compostable / not compostable

Impacts analysis and assessment

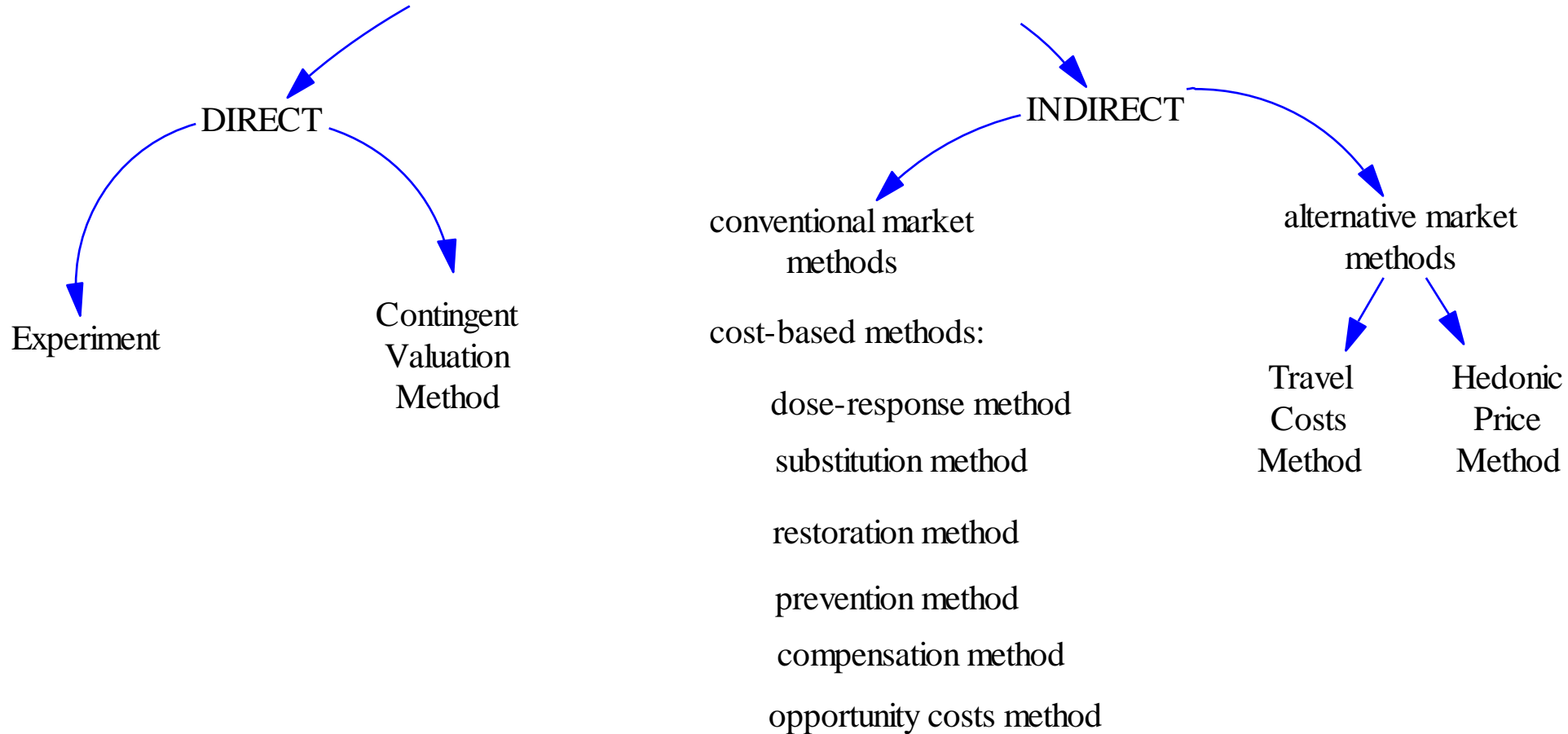
- blue-green infrastructure
- spatial planning
- risk pooling for low-probability high impact events



- higher intensity and frequency of extreme weather related events, such as floods, droughts, heat-waves, storms, etc.
- increased water demand, lower water supply

Methods for economic value estimation

VALUE OF ENVIRONMENT ENVIRONMENT VALUATION METHODS



- Is it worth to invest in a new bio-based materials? **COSTS < BENEFITS**

Benefits

- Reduction of Costs
- Improved Brand or Reputation
- Satisfaction of Consumers or Clients Social Responsibility
- Reduction of Risk
- Reduction of Resources Use/Consumption
- Attracting Green investments (easy to get or lower costs)

Drivers of change

- Environmental Concerns
- Reputation
- Image / Brand
- Consumers Demand
- Top Management Involvement
- Cost Reductions (fees, fines, taxes, recycling)
- Regulatory requirements
- Reduction of Resources Use/Consumption
- Green investments and cheap borrowing of green money (green bonds)

Barriers

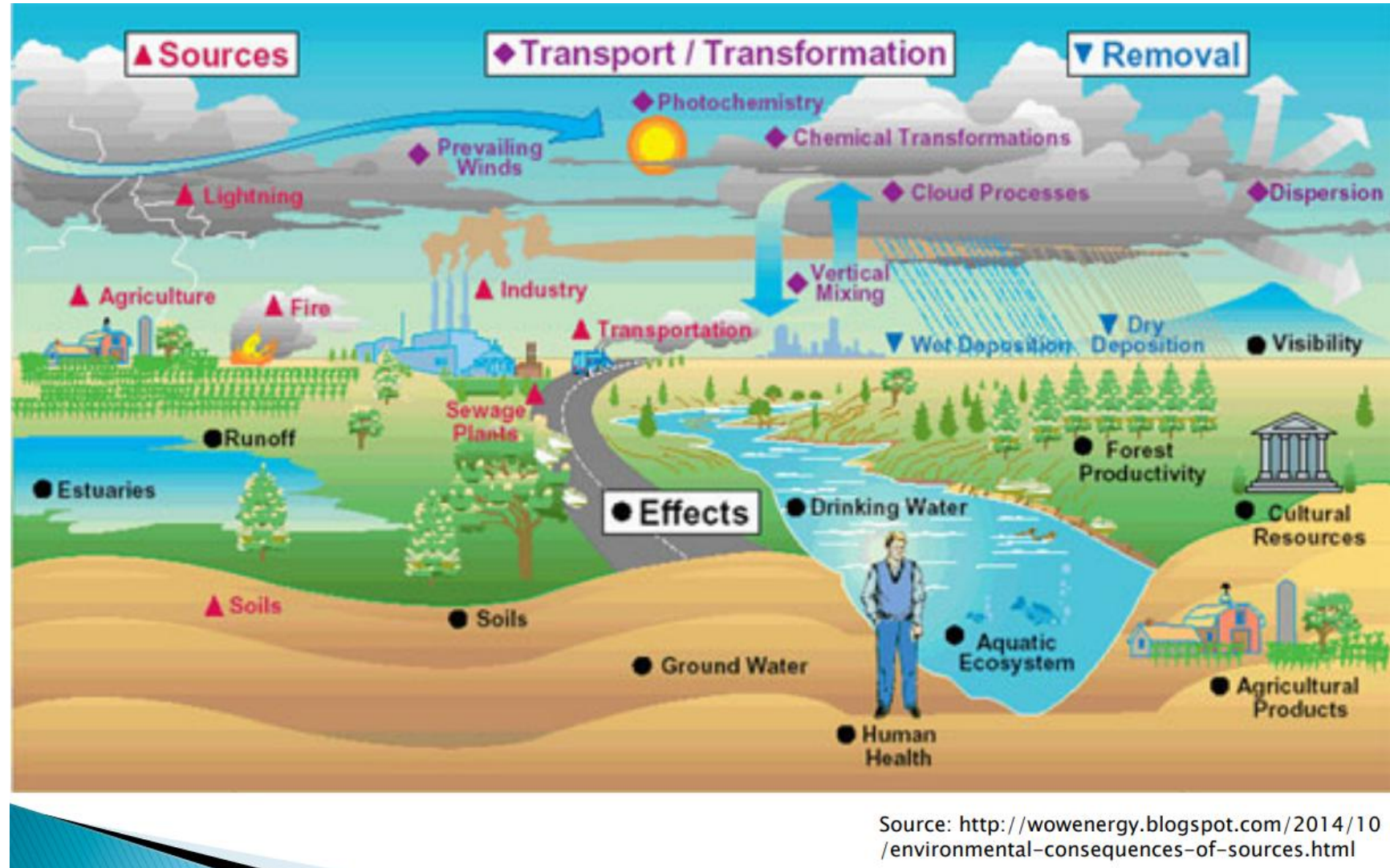
- Perceived Costs
- Lack of Awareness (sustainability importance)
- Lack of Knowledge or Technology
- Lack of Internal Communication
- Financial Constrains
- Lack of Senior Management Commitment
- Not many Options of Suppliers
- Bad Quality of 'Green' Materials

External effects

1. Water (surface-, groundwater)
2. Landscape
3. Soil
4. Air
5. Energy

Examples of environmental issues:

- Air pollution
- Water pollution
- Biodiversity loss
- Climate change



Source: <http://wowenergy.blogspot.com/2014/10/environmental-consequences-of-sources.html>



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