



Sustainability and Circular Economy

Manuel BURNAND

DEHLI – 27 Sept, 2014



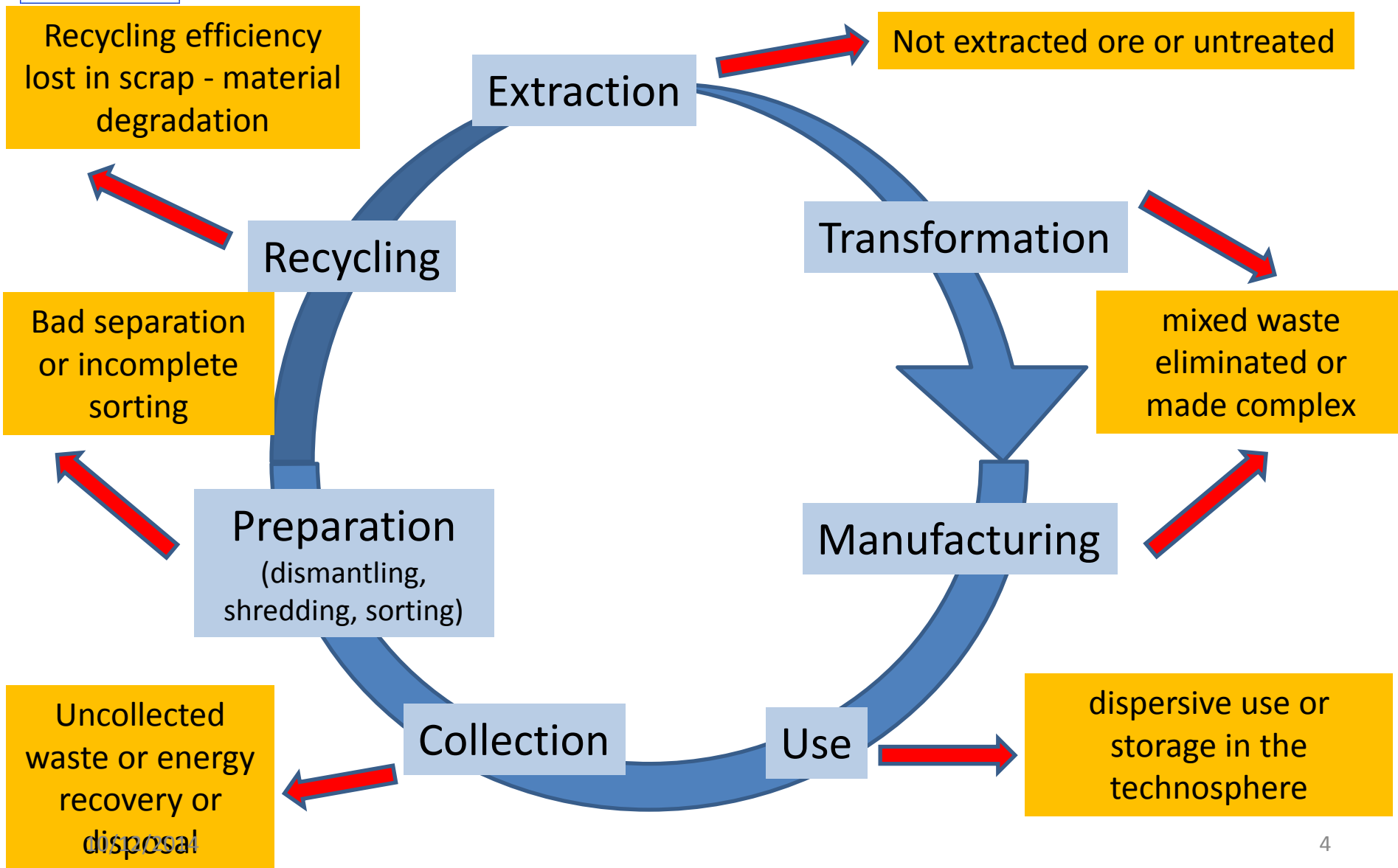
Topics

- French definition for Circular economy
- Current situation analysis
- 3 areas for action / 7 pilars
- Current weaknesses
- Opportunities / threats
- Exemples
- New law on energetic transition
- Spiritual views

French Agency For Environment and Energy Management (ADEME) definition

“circular economy” Economic system of exchange and production, to all stages of the life cycle of products (goods and services), aims to increase the efficiency of the use of resources and reduce the impact on the environment.

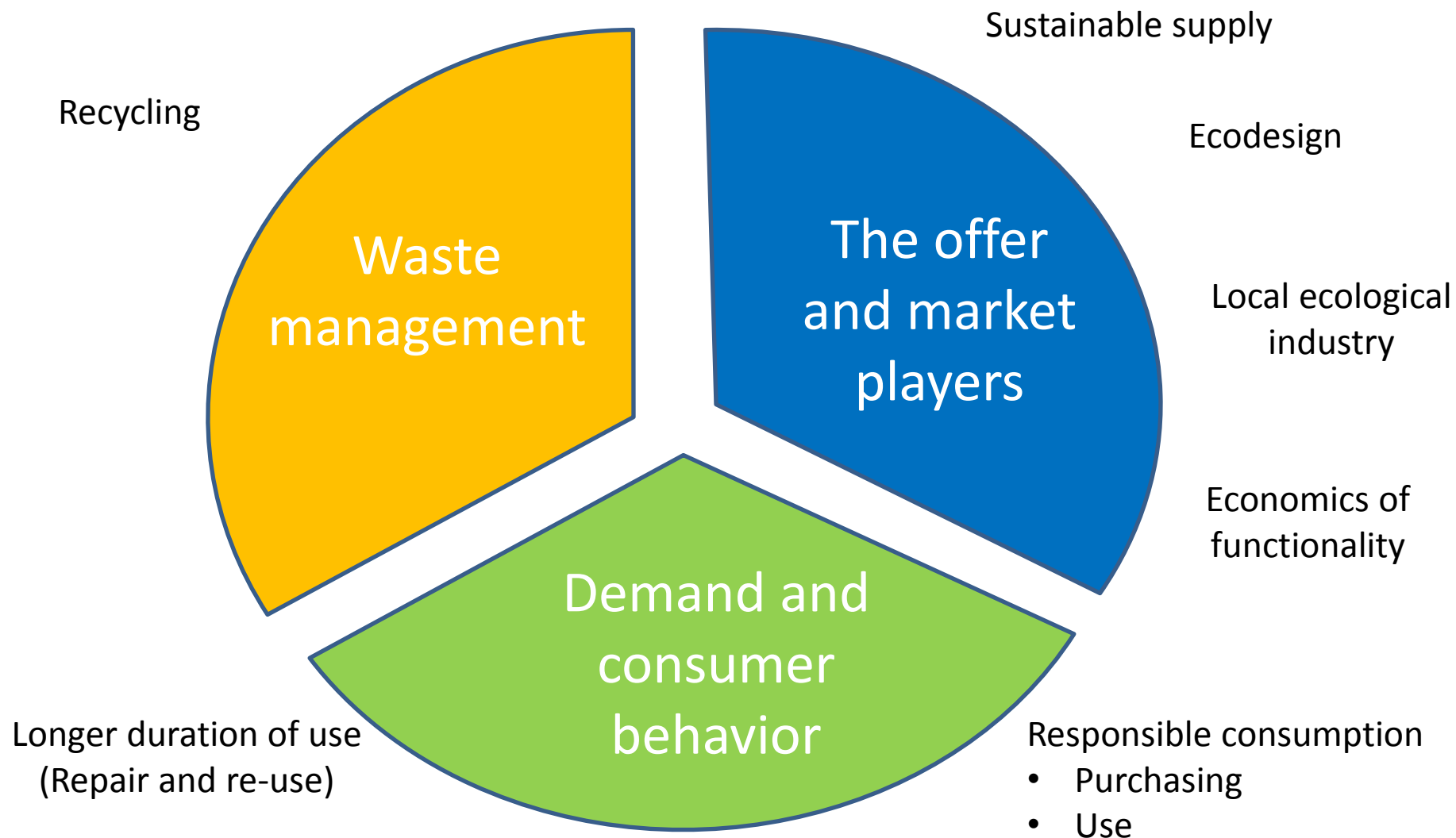
Loss of material and recycling limits





Three areas for action

Seven pillars



Some weaknesses identified (France)

- Lack of cooperation between the links
- Low cost of setting storage facilities
- Cost of labor
- The image of some recycled materials
- Deficiencies in sorting
- Mastery of the technology in sectors
- The illegal channels
- A lack of domestic suppliers equipment

Opportunities (France)

- Increasing obligations of recycling regulations
- Areas or niches where recycling is not mature
- Areas with links under capacity

Threats (France)

- Foreign competition, for the downstream industry
- Status of waste status for the downstream industry

Some elements of perspectives

THE MATERIAL FLOW

- The issue of raw materials is going to grow stronger in the short / medium term
- Increasing deposits for recycling in certain areas (ex : **Plastics**), declining in others (ex : **Glass from Screen**)
- A commodity demand stronger for recycled materials by manufacturers but subject to standardization (ex : “**green products**”)
- Increased environmental requirements for products

EFFECTIENCY OF RECYCLING OPERATIONS

- Strengthening the quality of materials recycling output
- Need to improve sorting from upstream to downstream
- The development of larger capacity facilities

Some elements of Perspective

BREAKS IN TECHNOLOGIES

- Emergence of new products in the recycling areas : glass fibers, complex alloys,

CHANGES IN STRUCTURES

- The strengthening of cooperative R & D
- The development of local industries / loops

Exemple : Coffee Machine « Ek'Oh »



- Duration expected : 10 years
- Price : 150 euros

- Injection molds manufactured in France
- Start and stop
- Subscription / sales system : Ek'oh is available for 6.50 euros per month on a duration of 24 months - From the 12th month, the consumer may at any time terminate his contract and return the machine
- Using parts that are clipped, machine is scheduled to be dismantled
- Simple design allow it to be always in fashion, outside parts can be replaced
- End of Life program : Disassembly through aid labor centers and recycling items separately

Example : Fuel from waste

- Increasing use of wastes in Cement Industry
- Connection of Household incineration plants to heating networks
- Several energy-intensive industries are exploring the possibility of using waste instead of primary resources (gazeification)
 - Steel industry
 - Glass industry

July, 2014 : New law on energetic transition (Ségolène Royal)

- Reduction by 7% of household waste and similar income per capita (2020 vs 2010)
- Run experiments on a voluntary basis to develop devices set for certain products and packaging
- Recover 70% of waste in the construction sector and public works in 2020
- Reduce by 30% the amount of non-inert non-hazardous waste storage facility admitted in 2020 compared to 2010 and 50% in 2025
- Increase energy recovery from non-recyclable waste in the form of material and development of SRF channel
- Adding the proximity principle in the environmental code
- Definition of the principle of self-sufficiency (each territory ensures as much as possible the elimination of non-recyclable waste they produce)
- Eco-organisms will use financial incentives to promote local waste management

Spiritual views : our relation with Mother Earth

- As Human soul comes probably from other regions than the Earth (with it own wisdom resulting from many experiences),
- Our human body directly comes from Mother Earth and is fed daily by Her, our principal needs are linked to Her,
- Humanity is probably invited to relearn cooperation with Mother Earth, by a dialogue with Her from « Heart to Heart »,
- **Today** many countries are experiencing the limits of systems built by the lower mind and fear

Our relation with Mother Earth

- **Today** , it is time to elaborate new models of life, sustainable for more than 10 billion people : those models could to be created with the help of meditation and in co-operation with Mother Earth and advanced civilisation that are living inside her
- Those economical and social models are essential for **Tomorrow**

