The circular economy in the context of mountain regions with a tourism economy
The Circular Economy
From linear to circular systems

T. Luthe
A circular economy is one that is restorative by design

A circular economy seeks to rebuild capital, whether this is financial, manufactured, human, social or natural.

This ensures enhanced flows of goods and services.

It builds new synergies and new economic opportunities.
Economic potential of a Circular Economy

Scoping study to identify potential circular economy actions, priority sectors, material flows and value chains

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Economic potential of a Circular Economy

Just in terms of materials costs, the model has been estimated to **enable savings of USD 630 billion for medium-lived complex goods in the EU** and USD 706 billion for fast-moving consumer goods globally.

Additionally, more circular models allow businesses to mitigate risks from material price volatility and material supply.

Figure 1.
The circular economy model
Adapted from Ellen MacArthur Foundation website
Systems thinking: waste does not exist

T. Luthe
Guidelines

The output (waste) of a system becomes the input (resource) for another one, creating:
- an increase in cash flow;
- new job opportunities.

The relationships generate the system:
- each one contributes to the system;
- the relationships can be within the system or outside of it.

Self-producing systems sustain themselves by reproducing automatically, thus allowing them to define their own paths of action and jointly coevolve.

The local context is fundamental because
- it values local resources: humans, culture and materials;
- it helps resolve local problems by creating new opportunities.

Man connected to own environmental, social, cultural and ethic context.
"Designers have remarkable opportunities to drive the transition to circular economy. The old way of focusing design on the product itself, its packaging and marketing, is simply not enough anymore."

- Maija Aho
Building Blocks of a Circular Economy

Circular design

New business models

Reverse cycles

Enablers and favourable system conditions

  Collaboration
  Rethinking incentives
  Providing a suitable set of international environmental rules
  Leading by example and driving up scale fast
  Access to financing
Design ideas of a Circular (Blue) Economy

The Blue Economy
by GUNTER PAULI author of the Report to the Club of Rome

01: Vortax Updated
02: Maggots Nature Nurses Updated
03: Coffee Waste to Protein Updated
04: Electricity without Batteries Updated
05: Glass as Building Material Updated
06: Fuel from the Forest Updated
07: Smooth as Silk Updated
08: Color without Pigment Updated
09: Metals without Mining Updated
10: Fresh Air without Filters Updated
11: Wind Energy without ... Updated
12: Wind Energy without turbines Updated
13: Control Bacteria without Bactericides Updated
14: Black to Stay Cool Updated
15: Mean Water for 25 Years Updated

51: Biogas Times Five.pdf
52: Branding Waste.pdf
53: Solar without Subsidies.pdf
54: Packaging with Fungi.pdf
55: Nuclear Exit with consensus and cash
56: Clean Air without Filters.pdf
57: Health as a System.pdf
58: Floating Electricity.pdf
59: Direct Current as a Standard.pdf
60: Batteries Made of Water.pdf
61: Jewelry Made of Rice.pdf
62: Worms Cutting Costs.pdf
63: Shoes from Nettles and Cocoonspdf
64: Water and Electricity from Wind and Air.pdf
65: Zero Pollution Updated.pdf

T. Luthe
Developing circular systems in a mountain region
Developing circular systems in a mountain region
The tourism supply chain in mountain tourism

Supply chain “Mountain Experience” and integrated stakeholders (Luthe 2009, adopted from Michel 2001)
Tourism is a network of co-producing actors
Tourism is a network of co-producing actors.

Networks have structure.

Source: Luthe et al. (2012).
Each actor is relevant for the success of the system
A gas station is more important than expected
The economic network of a mountain destination
The success of the individual depends on the success of all
Illustrating a tourism based circular economy
Workshop

“Tourism beyond its disciplinary boundaries: the potential of a circular economy for resilient mountain regions” with a specific focus on Italy

Design thinking workshop in groups

- Develop a circular economic system finding synergies between the present organizations
- What feeds into what – who benefits from whom – where is additional potential?
- Find synergies – be concrete – start local and move regional
- Draw a network and present it afterwards