

MODEL OF SUSTAINABLE GROWTH IN THE ALPINE REGIONS

Aleksander Dolenc
RISO d.o.o.



Interreg
Alpine Space
 **HEALPS²**
European Regional Development Fund



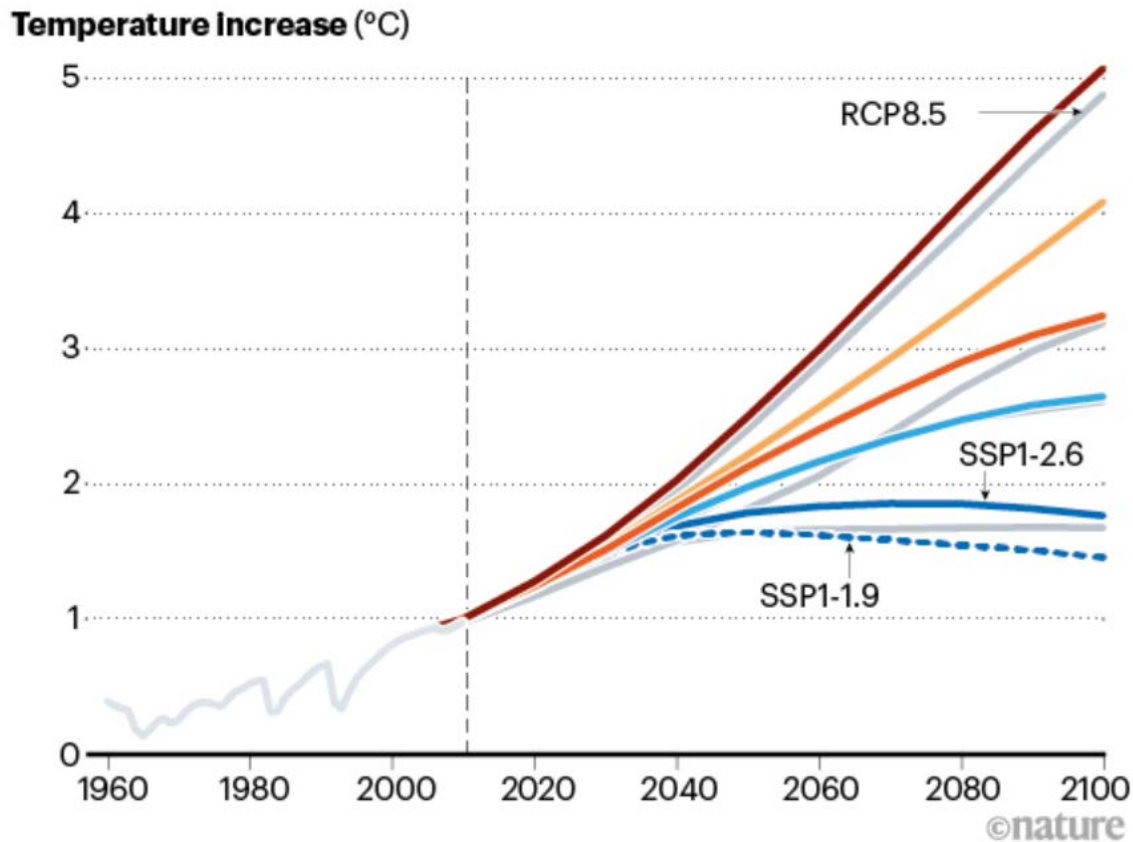
 **ARGEALP**
Die Alpen leben • Le Alpi vivono

 **RISO** consulting

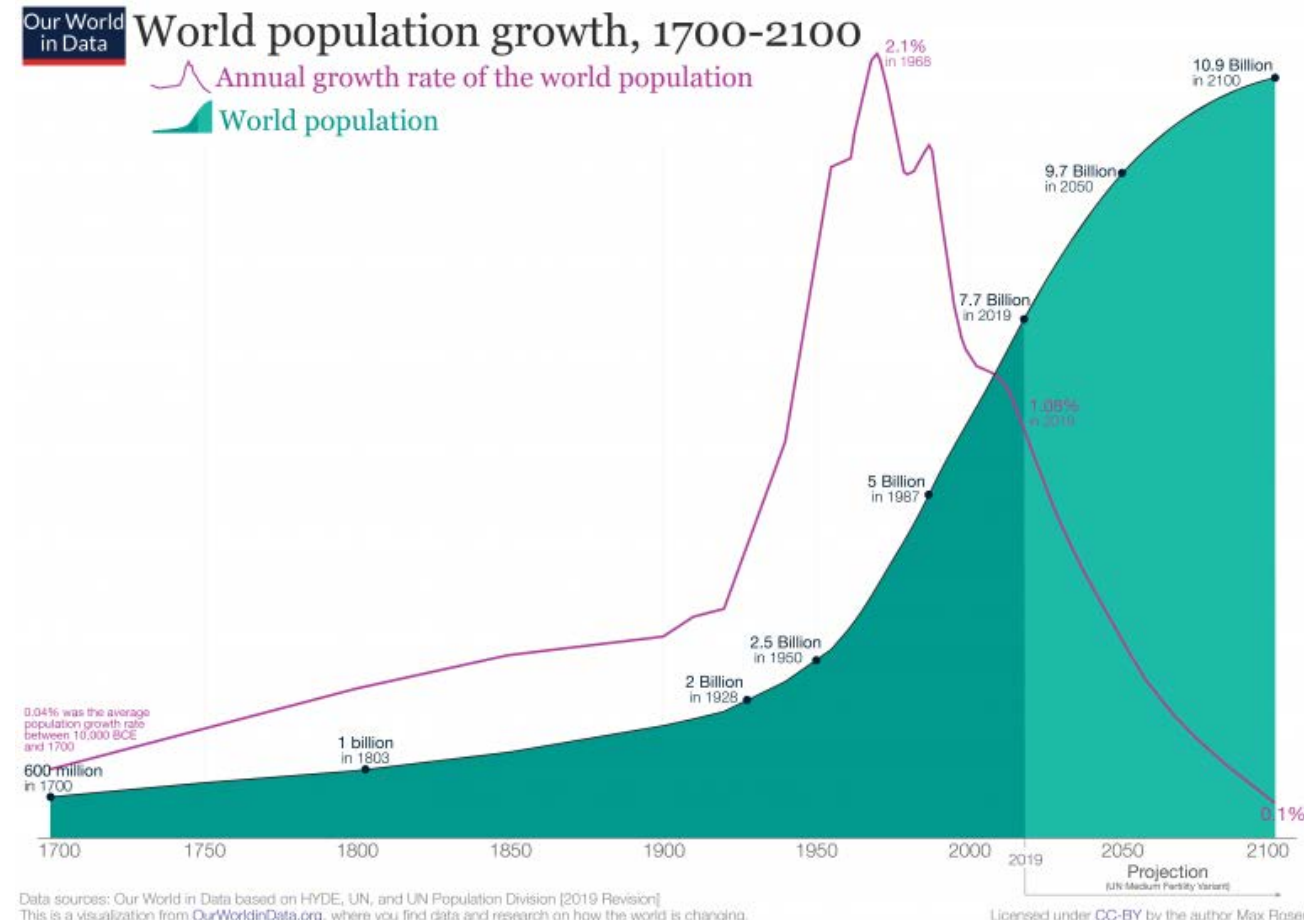


WHAT ROLE DOES A TEMPERATURE RISE PLAY IN THIS?

Extreme and controversial version is that a temperature increase of around 5 °C above pre-industrial levels by 2100 ...

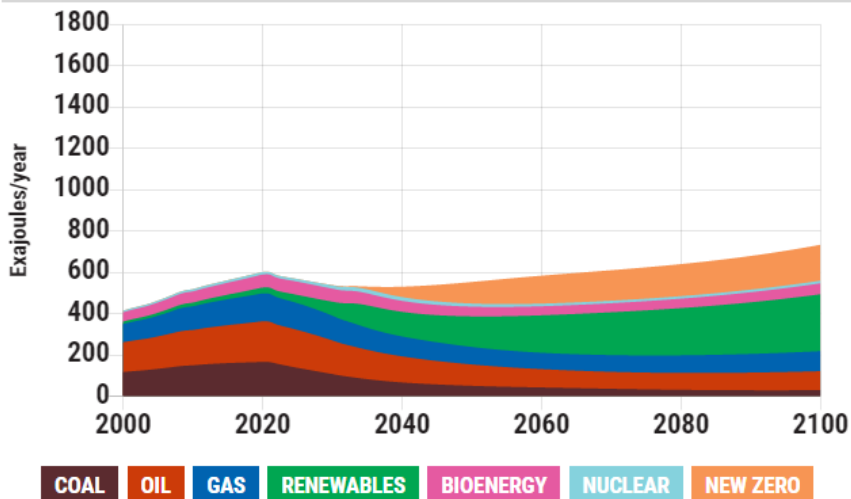


Source: Adapted from Fig. 3, B. C. O'Neill *et al.* *Geosci.*

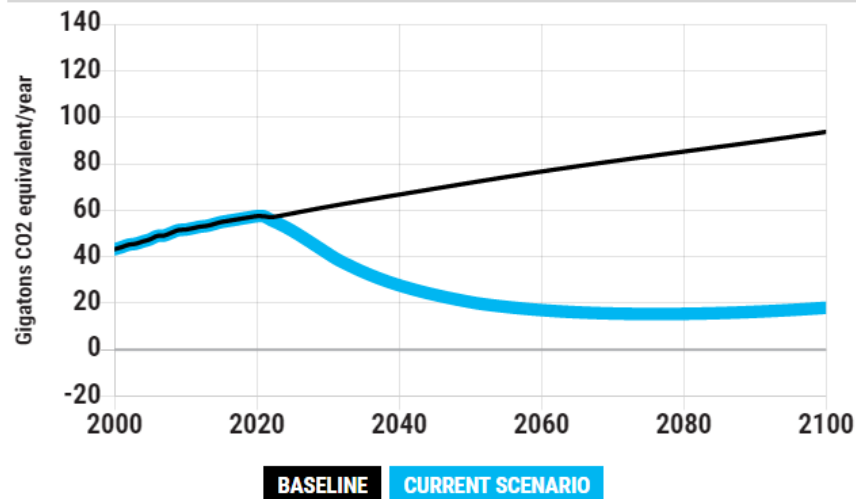


WHAT IF SCENARIO ...

► Global Sources of Primary Energy



► Greenhouse Gas Net Emissions

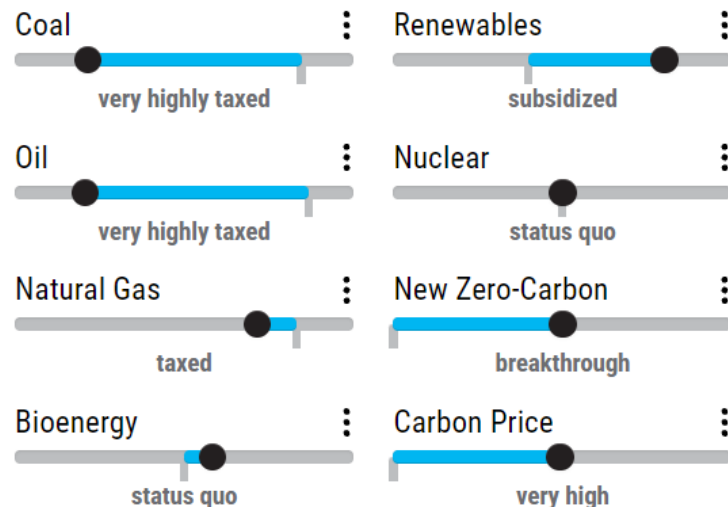


+1.9°C

+3.5°F

Temperature
Increase by
2100

Energy Supply



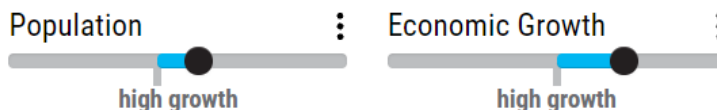
Transport



Buildings and Industry



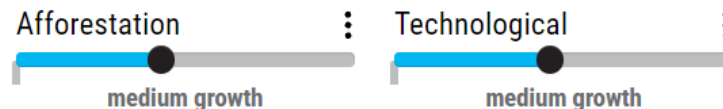
Growth



Land and Industry Emissions



Carbon Removal



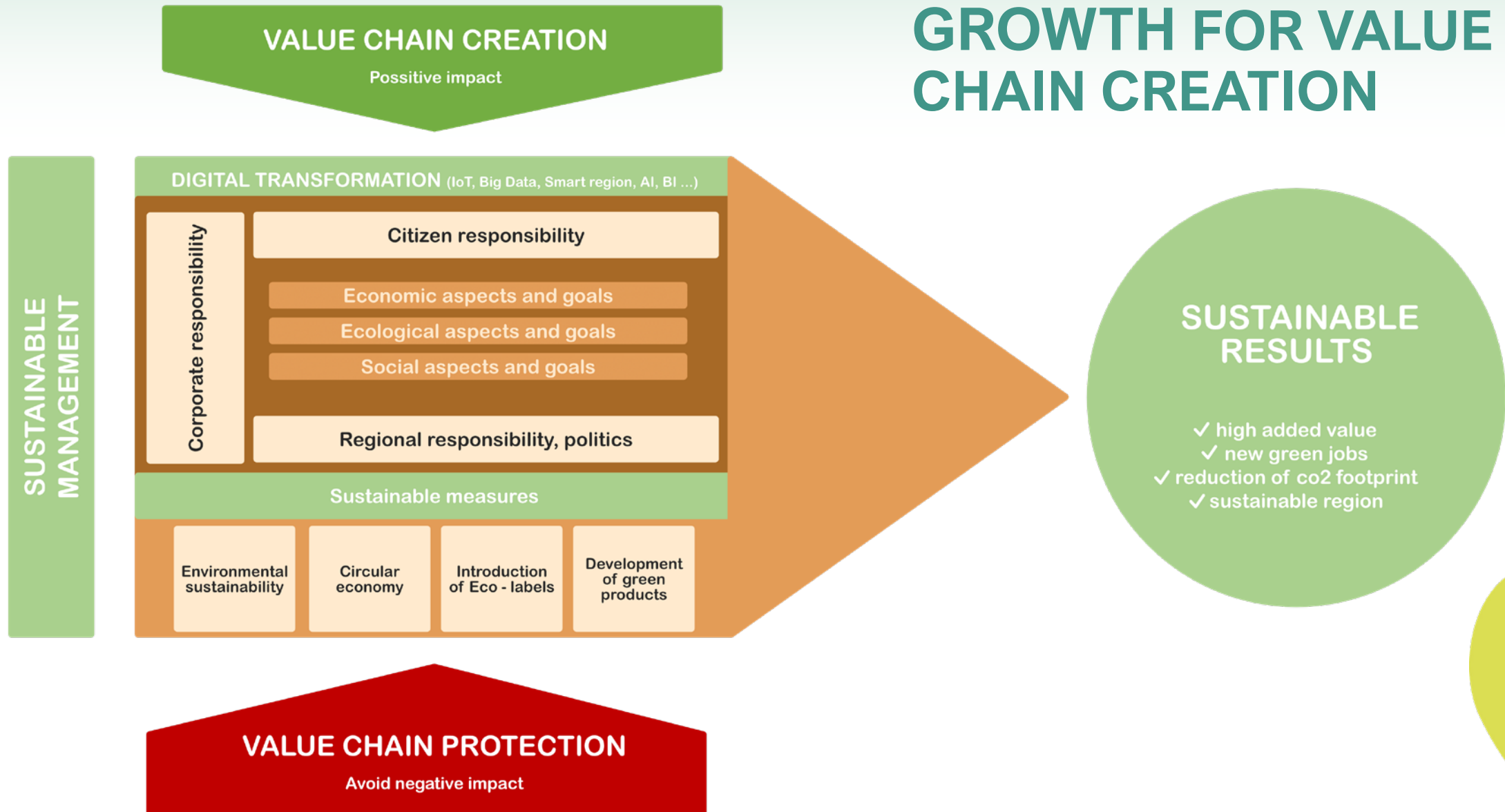
CLIMATE
INTERACTIVE

MIT
MANAGEMENT
Sustainability Initiative

Register Your En-ROADS Event

EN-ROADS

MODEL OF SUSTAINABLE GROWTH FOR VALUE CHAIN CREATION



ENVIRONMENTAL SUSTAINABILITY

Not just symbolic, severe shifts to decarbonization are required.

- use of local green energy sources,
- achieving high standards of energy efficiency in buildings,
- improving the quality of living in buildings (noise, humidity, heat and emissions)
- reduction of drinking water consumption,
- reduction of waste.

Example of a value chain

Hotel heating and cooling: Cogeneration on wood chips "biomass" in connection with HPP earth - water.

- Energy source: local biomass.
- Supply chain: a regional forestry company.
- Own use of RES electricity.
- Charcoal is added to hummus (fertilizer) composting → improving the organic matter content of the soil = higher crop yield.



CIRCULAR ECONOMY

Tourism is a significant waste generator.

According to the EU, food waste in Europe is expected to account for 7% of all GHG emissions.

The following types of waste are generated in the hospitality sector:

Waste flow	%
Waste food	41
Paper	13
Cardboard	9
Plastic	10
Glass	14
Other	13

An example of a value chain

- Biogas plant for heat production (district heating) and RES electricity from food waste.
- Production of bio compost from food waste or digestate from biogas plant + chicken excrement + grape seed + biomass = bio-organic fertilizer (for horticulture).

Awareness-raising is especially important to reduce food waste!



ECO LABELS

Encouraging companies to certify and obtain eco-labels.

1. In Slovenia, **accommodations** can receive the Slovenia Green Accommodation label on the basis of Bio Hotels, Ecocamping, EMAS, EU Ecolabel, Green Globe, Green Key, Travelife, or World of Glamping Green.
2. **Travel agencies** can receive the Slovenia Green Travel Agency label based on: Travelife or Green Globe.
3. **Attractions** can receive the Slovenia Green Attraction sign based on: Green Globe or Green Key.
4. **Beaches/bathing areas** can receive the Slovenia Green Beach logo based on: Blue flag.

An example of a value chain



DEVELOPMENT OF GREEN PRODUCTS

The development of green products must be tackled innovatively, creatively, and commercially, endorsing the concept of sustainability.

1. Involve professional staff from marketing, development, and production.
2. Take into account local facts, tales, historical figures, natural and cultural heritage.
3. Find a model of financing and management from public or private sources or. a PPP model.
4. Develop an innovative digital business model and use new technologies.

An example of a value chain

The path between the canopies (trees)

An innovative example of an experience offered in Slovenia, it endorses the concept of sustainability:

- wooden construction from local Slovenian wood,
- environmentally friendly content,
- connection with nature,
- encourages active exploration,
- the aspect of education,
- close cooperation of the investor with the surroundings and local residents.

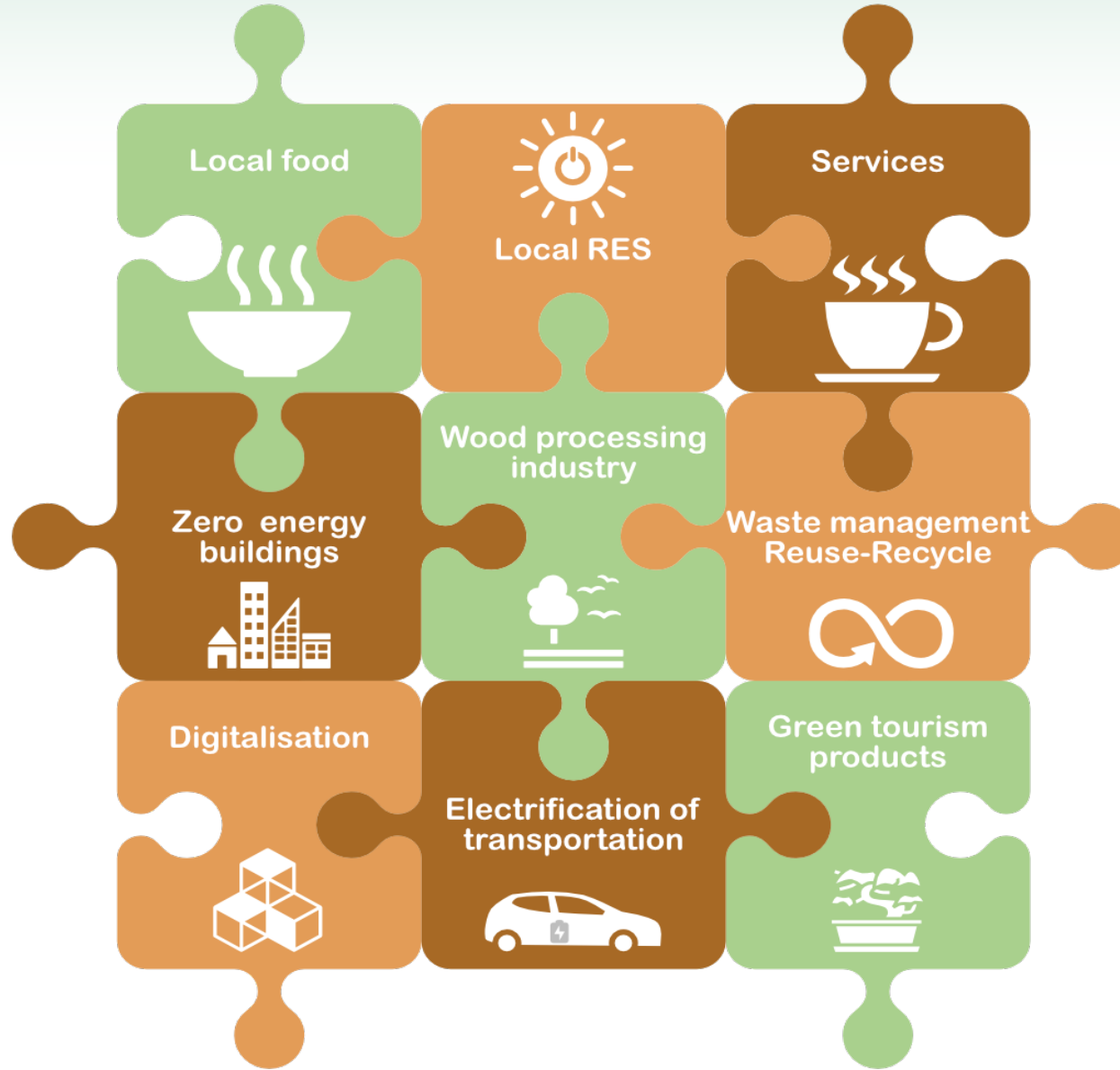


CASE: INTEGRAL GREEN TOURISM PRODUCT

The path between the canopies (trees) + The Lovrenc Lakes + Pohorje plate + Wellness center Natura Rogla.



POSSIBLE REGIONAL VALUE CHAINS IN ALPINE REGIONS



GUIDELINES AND SUMMARY

1. The Alpine region should strive towards zero emissions & waste, a circular economy by introducing modern green technologies and digitalization.
2. The main attributes for creating a positive value chain are: wood industry, services and RES production.
3. Advantages of the region: nature, fresh air, drinking water, homemade local food, which is the basis for a green USP.
4. Focus on achieving sustainable goals in the tourism industry:
 - i. High added value and boutique green products.
 - ii. Development of new green jobs in tourism and synergy industries.
 - iii. Reducing the CO2 footprint, the amount of waste, and drinking water consumption.
 - iv. Cooperation between regions.
 - v. Raising digital maturity to a prospective or excellent level.





Have a look at the project website
www.alpine-space.eu/healps2

and follow us



HEALPS2