

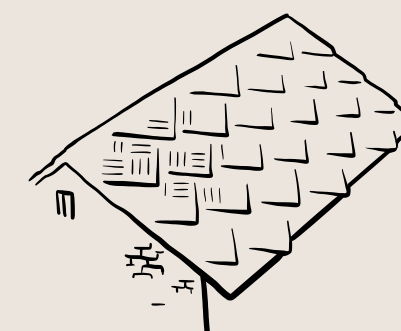
## Community

Cooperatives lead to:



Monte Viso - 3841m

# Many voices, one valley



## Energy

Local, sustainable energy production meets the villages energy demand. Increased self-sustainment leads to more resilience in future. The benefits lie not only in sustainability but also in finances.

Crissolo		Oncino		Ostana	
Hours	kWh/m <sup>2</sup>	Hours	kWh/m <sup>2</sup>	Hours	kWh/m <sup>2</sup>
5	70	4	70	3.5	60
9	200	8	210	8	240
4	50	5	60	6	95
7	120	11	120	12	150

Roof		Radiation kWh/m <sup>2</sup>
Sunlight hours	January July	
	January July	
South facade		



Reduction in global CO<sub>2</sub> emissions can reduce hazardous weather events in future.

**Family house annual consumption:** 2000 kWh  
**Installed solar panel:** 10 m<sup>2</sup>  
**Panel efficiency:** 16 %  
**Earth warming potential of grid energy:** 350 g CO<sub>2</sub>eq/kWh  
**Energy price:** 0.23 €/kWh  
**Consumed from grid**  
**10 m<sup>2</sup> solar panel**

700 kg CO<sub>2</sub> eq.  
460 €

122 kg CO<sub>2</sub> eq.  
80 €

- Proposed bus route
- Proposed e-bike valley loop
- Roads
- Lifts
- Proposed gondola
- Refugio
- Proposed 4G transceivers



## Mobility

Buses reduce traffic and therefore road maintenance, pollution, noise & commute times. Lifts provide potential for only one, central bus service line and two stops. Tolls for tourist cars on summer weekends subsidises the expense of buses / lifts.



### Bus Frequency Analysis

**Number of buses:** 3  
**Bus model:** Karsan Jest Electric  
**Max. bus Capacity:** 22 ppl/bus  
**Average Frequency:** 3,79 bus/hr  
**Average headway:** 15,83 min  
**Root Capacity:** 83,37 ppl/hr

### Toll on tourist car traffic

**Toll period:** only summer weekends  
**% leaving cars behind:** 20% of total  
**Toll on road for cars:** €10/car  
**Estimated payback:** 15 years

### Gondola

Gondolas are an effective way of moving tourists and residents into the core of alpine villages. The goal of using a Gondola is the reduce the travel time of the bus system along the arterial road. By including a gondola, we limit bus travel times, increasing frequency into the region

**Length: 930 m**

### E Bike loop



The E Bike loop aims to connect all towns in the region using as little road and hiking infrastructure as possible. This allows fast tourists access to all the unique activities and culture within each town.

**Length: 30 km**



## Business

Circular economy for sustainable development at local and regional scale. Quantitative data on implemented pilot projects foster scalability.

Example 1

### Wood and supply chain collaboration for high quality products

**Goal:** Create a local supply net with 100% Piedmont wood and reduced processing waste

**Focus:** Better integration of local primary producers in the wood supply chain through quality regimes, local markets, and short supply chains

**Period:** 2018-2020 (24 months)

**EU contribution:** € 159.891,52

**Total costs:** € 199.864,40

**Starting plot:** 4 ha of forest

**Final product:** Few hundreds m<sup>2</sup> of parquet

**Who is involved:** 18 local enterprises: local entities, forestry companies, first and second wood processing enterprises, wood products dealers, private clients



COBOLA

Example 2

### Regenerative design, smart thinking



**Example:** Borgata Ambornetti

**Goal:** A smallest as possible environmental impact touristic area of 3400 m<sup>2</sup> with hotel, restaurant, wellness center, touristic residences, co-working places, and farm.

**Focus:** Experimenting new technologies in collaboration with the Politecnico di Torino, recovery and valorization of historic and landscape heritage, local supply chain enhancement.

**Total costs:** Estimated € 5 000 000

**Who is involved:** Young Piedmont entrepreneurs, Politecnico di Torino, local artisans

**Other example:**

MonViso Institute (Ostana, CN)