

Castello Sostenibile

CASTELLO SOSTENIBILE

A SMALL-SCALE PROJECT IMPLEMENTED BY THE MUNICIPALITY OF CASTEL SAN PIETRO (TICINO, SWITZERLAND)

REGIONAL FORUM ON SUSTAINABLE DEVELOPMENT - UNECE

30.03.2023

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The starting situation

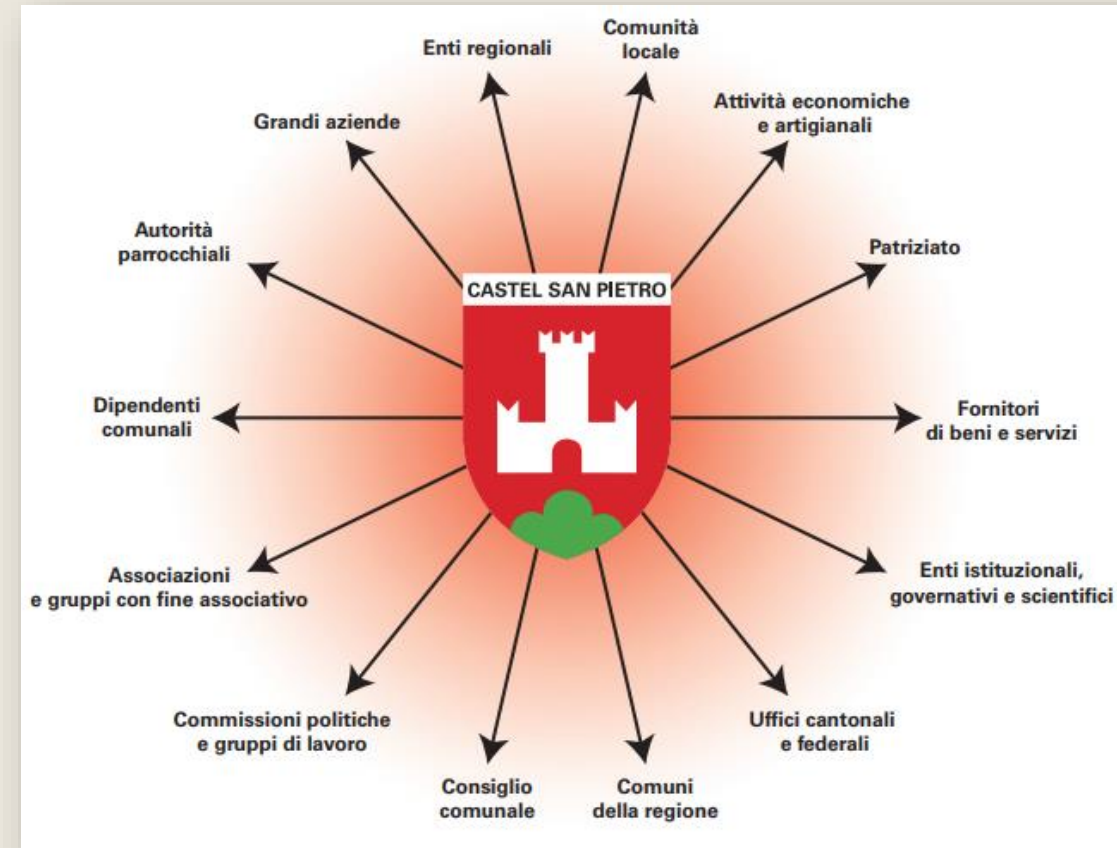


- Fighting invasive neophytes
- Analysis of public buildings with the Petra
- Services for families
- Wood chip heating
- Photovoltaics in municipal buildings
- Work integration programmes
- School Mobility Plan
- Agro-meteorological station
- Project "Monte" recognized as Model project for sustainable spatial development by the confederation
- organisation of clean green day
- Awareness-raising initiatives for local companies
- Municipality Energy Desk
- Light Pollution Ordinance
- Courses for citizens on organic composting
- Childcare services
- Incentives for the exploitation of renewable energy in buildings
- Collection of wet waste for biogas production
- Contribution for purchase of alkylate petrol
- Incentives for sustainable mobility
- Forest protection
- Creation of biodiversity areas
- Community nurse
- Grants for holiday camps and summer camps
- Publi-bike station
- Second-hand market
- Renewable heat evening
- Supporting winegrowers for the practical coordination of organic and biodynamic initiatives
- traffic calming measures (30 km/hr)
- Rare plants - Married grapevine
- Incentives for the implementation of rainwater recovery systems
- Classroom in the forest
- Renovation of municipal buildings to Minergie standard
- Participation in Climathon
- Energy Efficiency Incentives
- Raising awareness of sparing water use
- Contributions to projects of interest to third parties (Fondazione gole della Breggia, albergo diffuso Caviano, etc.).

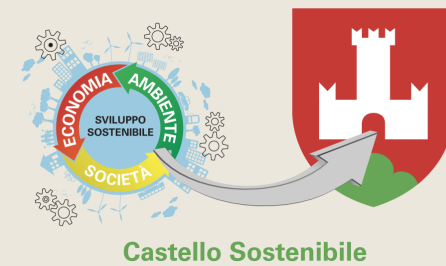
Why Castello Sostenibile?



- To agree on a recognized framework (**Agenda 2030**)
- To bind the municipality with a **strategic document**
- To ensure a **long-term vision**
- To **measure the impacts of policy choices** and the result of efforts made under a single reference framework
- To adapt in time to the current trend in **Canton of Ticino (regional government)** where municipalities will be called to take action by **promoting socially responsible behavior**
- To create **dialogue and communicate** transparently with all stakeholders (**accountability**)



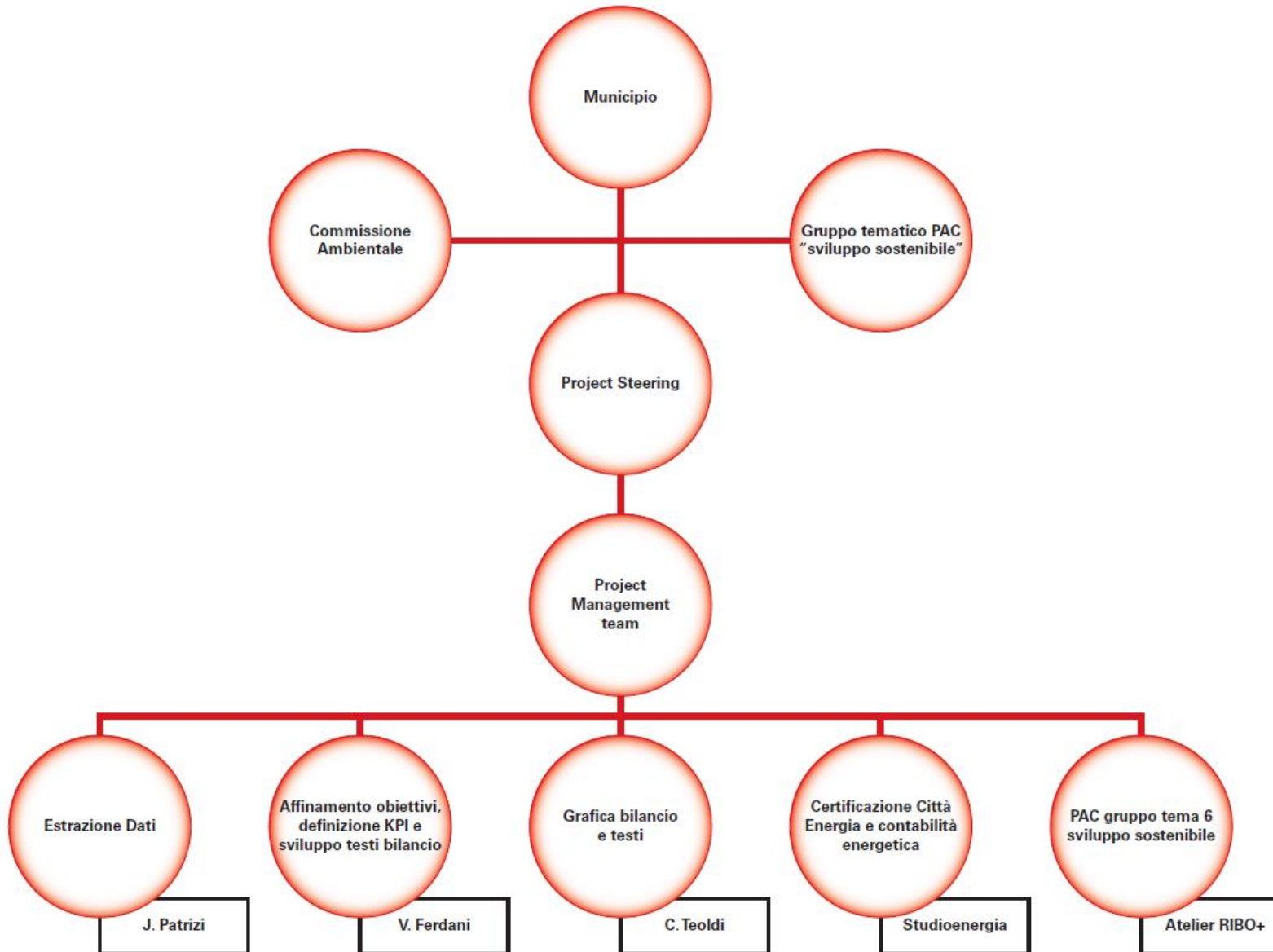
The three pillars of the project



- **Certification Cité de l'énergie**, European Energy Award (obtained for the first time on the 15th November 2022 with a score of 63.8%)
- Definition of indicators and drafting of a sustainability report focused on the **environmental dimension** as a starting point (published on the 6th March 2023)
- Identification of sustainability strategies to **optimize land use and space allocation** (ongoing – municipal master plan (land use))



Castello Sostenibile – a team project



ongoing consultation with the scientific community

- The scientific community validated a new method of assessment but also helped to innovate in terms of coming up with the right indicators

Stakeholder engagement for the setting of the report

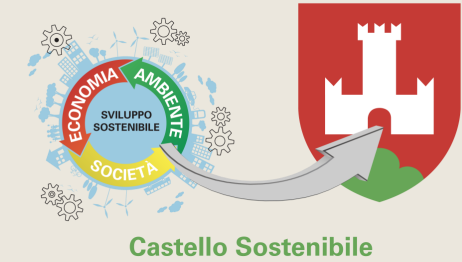


Consolidation of working groups and ensuring their involvement to secure a greater representative overview:

- Town Council
- Castel San Pietro administration
- Working groups (commissions)
- Academia
- Experts of Canton/Confederation departments
- Other municipalities (Stabio, Lugano, Bern)



A custom built methodology



- The report has been structured according to the thematic areas of the **Cercle Indicateurs** (29 participating municipalities at the swiss level)
- Due to the **inapplicability of some indicators**, additional measurement models were taken into consideration (FOEN indicators, Eurostat, European Energy Awards,...)
- **Synergies** with label **Cité de l'énergie**
- Approval by the various working groups
- Input by Canton experts of Ticino
- **Resulting in a set of 27 indicators**

Environmental areas from the Cercle Indicateurs
Biodiversity
Nature and Landscape
Quality of energy
Energy consumption
Clima
Resource consumption
Water balance
Water quality
Soil consumption
Soil quality
Air quality

AREA TEMATICA	INDICATORI	RISULTATI PRINCIPALI (anno di riferimento 2021)
Biodiversità 15	<ul style="list-style-type: none"> Neofite invasive Uccelli nidificanti Superfici per la promozione della biodiversità Stato naturale dei corsi d'acqua 	<ul style="list-style-type: none"> Area interessata: 6'220 m² (0,05% dell'area totale) 117 specie di uccelli osservate dagli anni '80 31% (=65 ettari) rispetto alla SAU Stato naturale/prossimo al naturale = 87% della rete idrografica
Natura e paesaggio 15	<ul style="list-style-type: none"> Superficie degli spazi naturali di valore Zone verdi e di riposo 	<ul style="list-style-type: none"> 16,7% rispetto all'area totale (198 ettari) 14% (= 6 ettari) rispetto alla superficie insediativa
Qualità dell'energia 7	<ul style="list-style-type: none"> Quota del consumo elettrico da fonti rinnovabili Numero di impianti fotovoltaici e potenza installata Quota di calore da fonti rinnovabili Score label (punteggio) Città dell'energia 	<ul style="list-style-type: none"> ca. 80% 87 impianti = 1'180 kWp di potenza ca. 30% 63,8%
Consumo di energia 7	<ul style="list-style-type: none"> Consumo di energia elettrica per abitante Consumo elettrico dell'illuminazione pubblica 	<ul style="list-style-type: none"> 3'104 kWh/7ab 168'156 kWh (-14% negli ultimi dieci anni)
Clima e mobilità 11	<ul style="list-style-type: none"> Titolari di un abbonamento annuale per il trasporto pubblico Numero di autovetture elettriche e ibride immatricolate Superficie adibita alla mobilità lenta Emissioni di gas a effetto serra dovute al consumo di energia 	<ul style="list-style-type: none"> 21% rispetto alla popolazione totale Auto elettriche: 17% delle nuove immatricolazioni / ibride: 27% 79'426 m² 6,3 tonnellate di CO₂ equivalenti pro capite all'anno
Consumo di risorse 12	<ul style="list-style-type: none"> Rifiuti urbani globali pro capite Rifiuti solidi urbani per abitante Quota di raccolta differenziata Produzione di rifiuti urbani per tipologia di trattamento 	<ul style="list-style-type: none"> 458 kg/ab 177 kg/ab 35% (Cercle Indicateurs) o 57% (se considerati tutti i materiali) 28% compostaggio/biogas, 31% riciclaggio, 43% incenerimento
Bilancio idrico 6	<ul style="list-style-type: none"> Consumo medio idrico giornaliero per uso domestico Consumo d'acqua per settore 	<ul style="list-style-type: none"> 179 litri al giorno Economie domestiche (76,4%), industrie e commerci (20,7%), settore agricolo (1,8%), scopi pubblici (1,1%)
Qualità dell'acqua 6	<ul style="list-style-type: none"> Qualità microbiologica dell'acqua potabile 	<ul style="list-style-type: none"> "Eccellente" (secondo i criteri dell'OMS)
Utilizzo e qualità del suolo 15	<ul style="list-style-type: none"> Superficie edificata per abitante Metalli pesanti nel suolo 	<ul style="list-style-type: none"> 155 m²/ab Qualità chimica del suolo valutata come buona
Qualità dell'aria 11	<ul style="list-style-type: none"> Immissioni di diossido d'azoto Indice di inquinamento a lungo termine (Mendrisiotto) 	<ul style="list-style-type: none"> 15,04 NO₂/anno (-50% negli ultimi 10 anni) 4 (marcato)

Sustainability report available on

www.castelsanpietro.ch

Next Steps



- ✓ The Municipality is evaluating the various measures to be introduced for the environmental dimension and is planning the times and methods for their introduction.
- ✓ Monitoring of the indicators identified in the upcoming period and integration of the sustainability reporting in the annual Municipality's reporting.
- ✓ Matching internal experts within the municipality with assessment needs to support securing environmental, social and economic indicators towards a complete sustainability report according to recognized standards (GRI).
- ✓ Giving visibility and communicate on good practices while being by those of other locations.



 **COMUNE DI CASTEL SAN PIETRO**  Castel San Pietro

**GIORNATA DEL CLIMA
&
DELLA SOSTENIBILITÀ**

Domenica 5 marzo 2023
Centro scolastico



 **AGENDA
2030**

Toolbox Agenda 2030
per i Cantoni e i Comuni





**THANK YOU
FOR YOUR
ATTENTION!**