

Smart Villages & Green Deal



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Supported by the



SMART VILLAGES

EU Definition

Smart Villages are **communities in rural areas** that develop **smart solutions** to deal with challenges in their local context. They build on existing local strengths and opportunities to engage in a process of sustainable development of their territories. They rely on a **participatory approach** to develop and implement their **strategies** to improve their economic, social and environmental conditions, *in particular* by promoting innovation and mobilising solutions offered by **digital technologies**.

(Pilot Project on Smart Eco-Social Villages)

Key features translated into practice

- Smart village “strategy” (some evidence for a strategic thinking/vision) reflecting an integrated approach...
 - ...at the local rural community level that is developed & implemented on the basis of participatory approach (as much as local societal conditions allow)...
 - Using modern knowledge and technologies as much as possible (but necessarily all digital)...
 - Aims to make a (considerable) change in response to pressing global challenges in the local society and area.
- ...BUT not all features might be present (with the same weight)

Smartness in the process...

- Future-looking **vision** ...
- **Strategic approach**... addressing contemporary challenges (climate, food & energy safety, depopulation, lack of services...)
- Making the **most of knowledge & innovation** to achieve this (inc. modern technologies, digital) ... but not only.
- Engaging the local people in planning & implementation (as much as possible) – **social innovation**
- **Ultimately achieve a change at local community level** in response to pressing challenges – **social impact**

Ostana (Italy)

- They have had a **vision**: to reverse depopulation in a sustainable way (strategic thinking)
- They work on several themes in an **integrated way**: including smart mobility also to reduce negative environmental impact of tourism; biodiversity
- They actively work with the local community
- They **reversed a negative trend** (kids born, school reopened) & starting **sustainable residency programme**
- ...BUT digital is not the main focus.



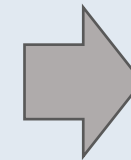
Stanz (Austria)

- They have had a **vision**: to create a sustainable living for the local community
- They work on several themes in an **integrated way** : several renewable energy sources, local energy community (token system), sustainable tourism in harmony with nature
- They managed to maintain services and are **becoming energy self-sustainable** through community engagement
- ... **BUT not** all smart actions are digital / **not** all the society (1800+ people) are involved.



Common to all...

- ACTION AT THE LOCAL COMMUNITY (VILLAGE) LEVEL
- VISION (STRATEGIC APPROACH) – RESPONDING TO PRESSING CHALLENGES (DEPOPULATION, CLIMATE CHANGE...)
- SOMEONE(S) TO LEAD
- OPEN-MINDED TO NEW EXPERIMENT/ CREATIVE
- COMMITTED
- SUSTAINABLE IN THE LONG TERM
- MAKES (HAS POTENTIAL FOR) CONSIDERABLE SOCIAL IMPACT AT THE LOCAL (AND GLOBAL!) LEVEL
- ... OFTEN FEEL NEGLECTED & BEING ALONE



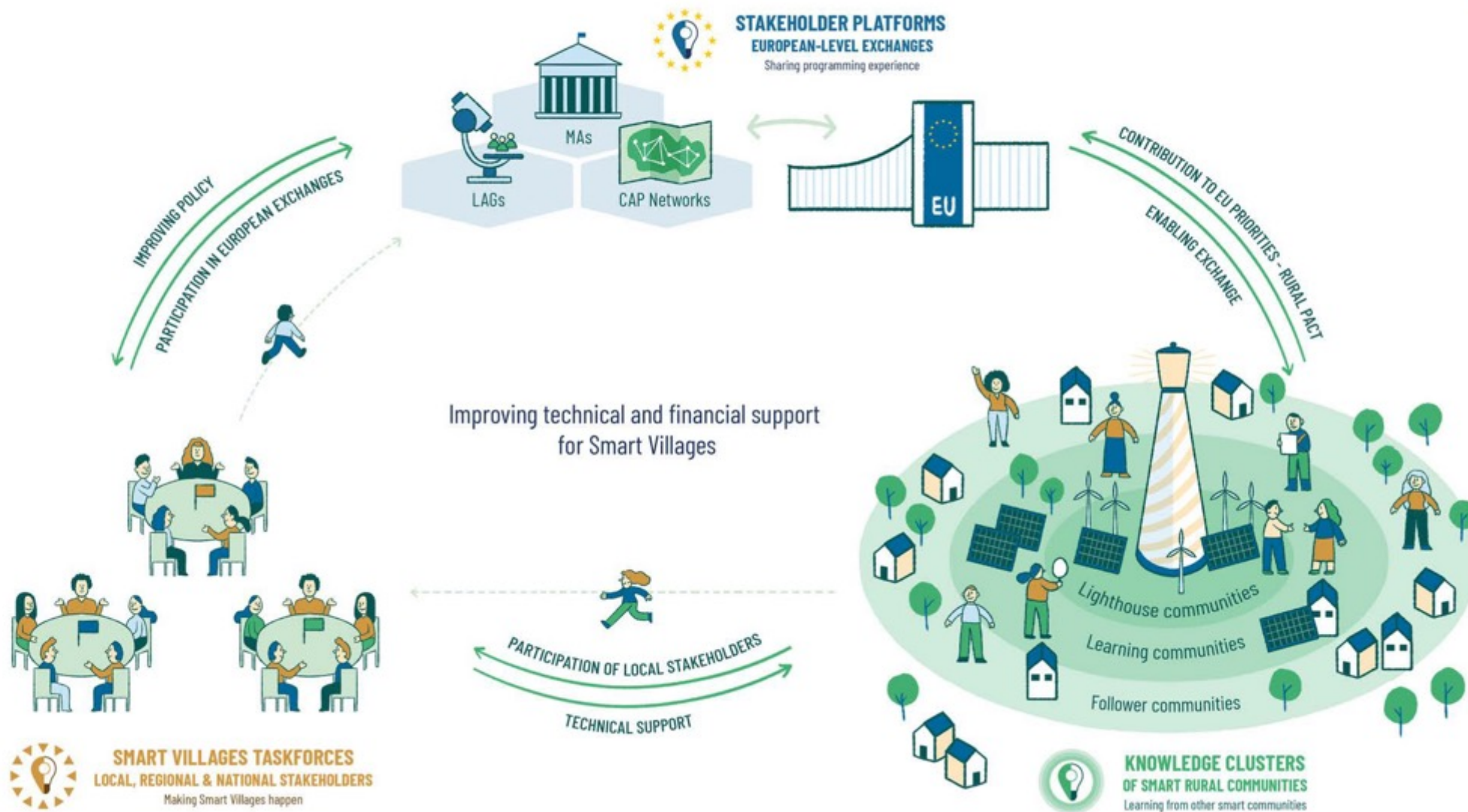
IMPORTANT TO
DEFINE BETTER ...
BUT CAN'T BE EASILY
CAPTURED THROUGH
DEFINITION OR
INDICATORS.

THE SMART RURAL 27 PROJECT

Overall objective of SR27

To prepare Member States and rural communities for the implementation of the CAP post-2020 as well as other policies and initiatives which could potentially support the emergence of Smart Villages across the EU.

The European Smart Villages Observatory



Knowledge cluster on Renewable Energy Communities

- Focus on supporting rural communities in exchanging smart ideas/ experience in the theme – with some sessions open to others
- Possible thematic exchange also in other themes such as smart entrepreneurship / farming


What is happening in the cluster?

25 Apr 2023
2nd online meeting

11-12 May 2023
Field visit to Stanz

Jul 2023
Smart Village Café


Presentation of Søren Hermansen on energy actions initiated with the local community in Samsø.



Søren Hermansen
Samsø (Denmark)


The 2nd online meeting of the energy cluster was opened up to a wider interested audience and invitations were sent out to more than 250 rural communities. During the session [Søren Hermansen \(Samsø Energy Academy in Denmark\)](#) shared his experience in initiating various innovative and sustainable energy actions with the local community in Samsø.

1st Pilot Observatory Meeting and field visit to Stanz (Austria)



The [1st Pilot European Smart Villages Observatory meeting](#) – with a focus on renewable energy – was held face-to-face in Graz (Austria) with a field visit to Stanz. Participants included European, national and regional level stakeholders and rural communities. 13 energy cluster members participated in the 2-day event. You can read the report of the 1st Pilot Observatory meeting [here](#).

Smart Village Café session on REC Legal Frameworks in Europe



Smart Café session planned on the legal framework of setting up local Renewable Energy Communities in various countries (to be confirmed).

Sharing village experiences

- Lighthouse examples (videos / podcast series)
- Database of Smart Villages: <https://www.smartrural27.eu/smart-communities/>



CAP ANALYSIS

Smart Villages & EU Green Deal in CAP Strategic Plans (I)

Example of Poland - Smart Villages concept

“The concept shall include in particular:

- a) a description of the process of developing the concept, including carrying out consultations with the community of the area results of the work of the partnership,*
- b) a simplified SWOT analysis of the area covered by the concept,*
- c) a plan for involving the community in the subsequent implementation of the concept, including the role of the village head or village council in the process,*
- d) a list of projects that will make up the implementation of this concept, taking into account the digital or environmental or climate component.” (PL CAP SP, p. 1016)*

Smart Villages & EU Green Deal in CAP Strategic Plans (II)

Example of Italy - Smart Village actions

Intervention “Cooperation for rural, local and smart villages (SRG07)

Smart Villages intervention envisages four different actions:

- i) food systems, supply chains and local markets;*
- ii) rural tourism;*
- iii) social and economic inclusion;*
- iv) environmental sustainability.*

Smart Villages & EU Green Deal in CAP Strategic Plans (III)

Example of Croatia - Smart Village projects

Smart Villages supported through LEDAER intervention, Local Development Strategies (LDS)

Projects will contribute to the implementation of the Smart Villages concept where they contribute to the following activities/are related to:

- innovative and smart solutions in villages*
- digitalisation in agriculture and other social activities in villages*
- contribution to **environmental objectives and climate change mitigation in villages.***

OUTCOMES OF THE REGISTRATION SURVEY

Motivations

- Interested in the topic because of the **Green Deal** – many of you work in the field
- Interested in **Smart Villages**: understanding the implementation of Smart Villages
- **Implementation of Smart Villages in relation to Green Deal** – Potential of Smart Villages to contribute to sustainable food production, enhance biodiversity, reduce carbon footprint, and improve resource efficiency – Exploring examples
- Better support **Smart Villages through LEADER**
- **Knowledge exchange and learning**: (wide range of professional backgrounds) Committee of the Regions, Rural Pact, Rural Networks, Tourism Association, Consultants

“I believe in the Pilot European Smart Villages Observatory and the knowledge clusters so maybe another cluster can come up.”

On a scale of 1 to 5, what is the potential of Smart Villages to achieve the objectives of the EU Green Deal?

64 Responses- 5 Empty

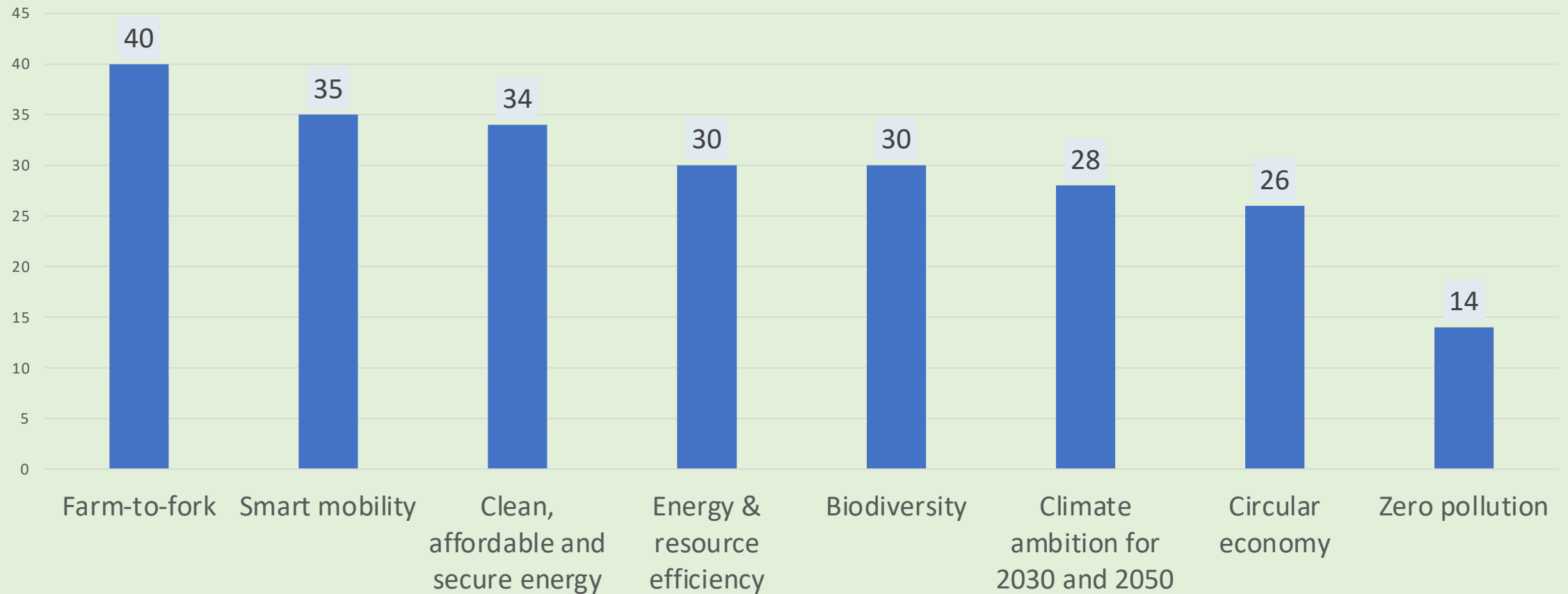


3.78
Avg. Response

64
Responses

Data	Response	%
★★★★★	16	25%
★★★★☆	21	33%
★★★☆☆	24	38%
★★☆☆☆	3	5%
★☆☆☆☆	0	0%

Which of the Green Deal Areas are most relevant for Smart Villages ...



Smart Villages contribution to Green Deal

- **Strategic approach:** Smart Village Strategy to be aligned with Green Deal objectives
- **Local approach:** Developing **local solutions for global challenges**; contribute to shift of behaviour; source of environment, soil, water, food, waste management, energy, biodiversity...
- **Farm-to-fork:** green cultivation, improve agricultural viability and competitiveness, organisation of food chain
- **Self-sufficiency:** renewable energy, smart mobility ...
- **Innovation:** link between local (social) innovation and ecological transition (“transformative innovation”)

Green Deal's contribution to Smart Villages

Funding, Political Support, Partnerships

With a dedicated focus on rural areas overall, which are currently overlooked within the EGD: **rural areas as stewards of the earth/ biodiversity are not in the focus at all.** Biodiversity / natural capital but also climate change impacts/ social progress indicators such as social cohesion should become part of the indicators, which decide about cohesion policy (and funding).

The role of technology and the "**digital transformation**" as the second pillar of EU policies next to the EGD **needs to be systemically connected to the EGD**, as there are big trade-offs between digital and ecological sustainability. The systemic approach of the EGD offers the opportunity to mainstream and prioritise EGD in all policy fields.

Green Deal's contribution to Smart Villages

“The greatest impact could be achieved through **funding opportunities and political support** for the roll-out of viable projects that follow the guidelines of EU Green Deal specifically adjusted for Smart Villages. I can confirm from "the inside" of real estate market that people are interested in such project development, but very often stumble to move forward, because the development costs are higher than the "old way" and political force is not providing the needed support mechanisms to motivate the doers to step into the unknown...”

AGENDA

Introduction: Smart Rural 27 & The Green Deal Research (10.00 - 10.30)

- Introduction to the Smart Rural 27 meeting, purpose & outcomes of the Green Deal survey with participants, *Edina Ocsko (E40, Project Coordinator)*
- Introduction to the Green Deal Study and initial findings, *Jane Feeney (Ecolise, Smart Rural 27 partner)*
- Q&A

Presentations on Smart Villages' contribution to the Green Deal (10.30 - 11.00)

- Piotr Ostaszewski (Tomaszyn): Smart Villages' contribution to Farm-to-Fork
- Cécile Mestrez (GAL Meuse Campagnes, Belgium - Wallonia): Smart Villages' contribution to biodiversity - the BioMap initiative

Discussion groups (11.00 - 11.40)

- Smart Villages & Farm to Fork
- Smart Villages & Biodiversity
- Smart Villages & Climate Action (energy, mobility & beyond)

Wrapping up & next steps in the preparation of the study (11.40 - 12.00)

WORKSHOP

Workshop discussion questions

- Questions & Answers on the intervention at the plenary
- **Consider the Smart Villages features** (strategic approach based on addressing the pressing challenge of climate change, innovation, community engagement & social impact): **Do you know any local communities** that have a strong approach in [*biodiversity/ farm-to-fork/ other EGD themes*] and **could be considered as a Smart Village?** Why?
- Which are the **EGD funding sources** (or other support) that are suitable for local communities (“villages”)?
- **What can be done more** (e.g. through SR27) to make sure that funding/ political support reaches rural communities?

Stanz im Mürztal

Country: Austria

Inhabitants: 1855

Type of area: Mountainous

Governance: Local elected mayor

Administrative level: LAU2



About Stanz



Stanz im Mürztal is located in a rural area **in the province of Styria** in Austria, in a side valley of the Mürztal. **The province is industrial** and has been affected by economic structural change in recent decades. As in many European regions, people tend to move into metropolitan areas, which is one reason for depopulation.

The economy is small-scale, which is reflected in the high percentage of people who commute from the municipality. In the **2015 municipal elections**, a citizens' list independent of any party became the strongest body in the municipal council and has provided the mayor since then, as well as the deputy mayor since 2020. People and their engagement can be seen as one major asset.



80% of the municipal area of Stanz is forest, which provides opportunities for sustainable energy production. Stanz is also embedded in a mountainous landscape, far away from mass tourism – this offers possibilities to create an alternative path to sustainable tourism.



The Smart Journey of Stanz



Renewable energy



Investment in wind turbines
OVERALL BUDGET: Approx. € 92.000.000 (private)
Duration: 2012-2042

2012

Future in renewable energy at the local level:

In 2012, the first wind turbines were constructed in the Stanz Valley. There are now 23 wind turbines, which together have a peak capacity of 66 MW and make an important contribution to supplying the region with renewable energy sources. In contrast to other regions, there is no resistance from the people and the energy turnaround has broad acceptance.



Local Renewable Energy Community

Feasibility study energy-based local currency based on blockchain technology: As one of the selected villages of the Smart Rural 21 project, Stanz supported a token engineering study that considered the legal, technical, economic and ethical aspects of an energy token system linked to the operation of the renewable energy community. Several community engagement events took place. 65 local members signed up for the energy community established in 2022.

Feasibility study on energy-based currency
OVERALL BUDGET: € 60,000
• EU fund: € 60,000 (Smart Rural 21 project)
Duration: 2021 - 2022



2022

Plus-energy district in the village centre: Stanz has a rich potential of biomass from wood, hydropower and potential areas for the generation of energy from solar power. In 2020, the village centre began to be supplied with heat from local biomass.

Establishing a plus energy district in the village centre
OVERALL BUDGET: € 750.000
Duration: 2020-2022



Realising the energy community: One of the greatest challenges of the energy transition is the coupling of different energy production sectors and grids (electricity, heat) and the storage of unused energy. The construction of a new biomass heat and power grid in the centre of Stanz and energy autonomous village centre is being realised using **digitalisation, blockchain technology and local (e-token) currency**.

By 2030, the aim is for the municipality to be autonomous in the area of renewable energy production.

Realising the energy community
OVERALL BUDGET: € 65.000
Duration: 2022 - ongoing

Stanz SR21 page:

https://www.smartrural21.eu/villages/stanz_at/

Community engagement

Feb– March 2022

Token System Design:
Economic, technical and
Ethical engineering

Feb– May 2022

Workshop and Plenary

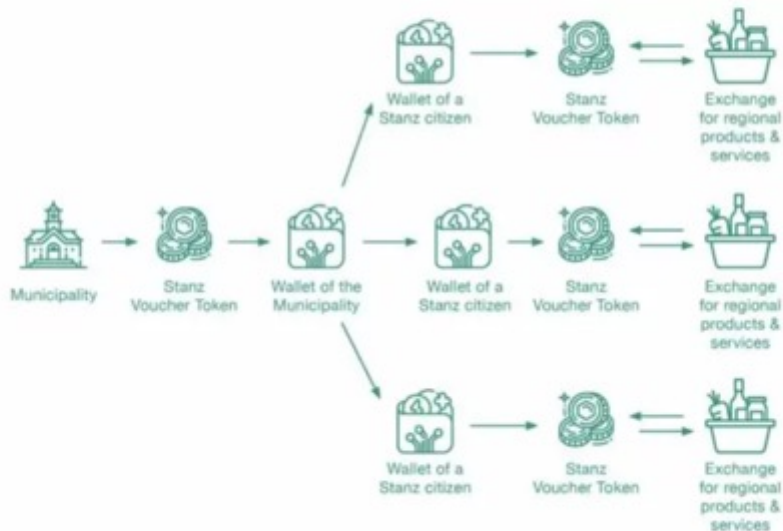
May 2022

Legal Engineering

Sept 2022

Final report

Jun 2022



Step 5/8 :Token System Design Stanz Coin

Out of different token economy standards and infrastructures the most relevant cases were identified. The **Token System Design** was carried out, including Economic, Technical and Ethical Engineering and the design of legal compliant smart contracts.



The Smart Journey of Stanz

Shared mobility

Smart mobility solutions: In 2018, a municipal e-taxi started, which is operated at affordable rates by 18 volunteer drivers for the public. Other mobility solutions include the "Yellow benches" that are set up along the road on 45 kilometres, linking three villages. People can indicate by opening the yellow umbrella if they need a lift.

Shared mobility solutions
OVERALL BUDGET: € 47.000
Duration: 2018

2018



Sustainable tourism



Exploiting tourism potential without overusing natural resources: Until the 1980s Stanz was part of the Styrian "summer retreat destinations" and maintained an active tourism business. However, this economic mainstay lost importance. The aim is to revise sustainable tourism services, creating new economic opportunities in the village.



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