SUN smart village

Bringing sustainability, innovation and unspoiled nature together into a game changing hybrid ecosystem

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The Ways of Living and Working are Changing

We're witnessing massive changes in the way the world lives and works. On one side, the urgency to build **sustainable societies and economies** is becoming clear beyond doubt. It's reflected in political agendas, investment flows, and in huge trends in the general population with ever more people expressing demand for **sustainable products, services and lifestyle options**.

On the other side, the way we live and work is being disrupted by technology. We're converging into a **globally connected society**. **Flexible and distributed work** is becoming the new normal, only to be enhanced by the emergence of concepts such as Metaverse and Extended Reality. Companies that embrace flexibility in work arrangements are better positioned to attract and retain talented and motivated employees.

The vision of Smart village SUN is a hybrid ecosystem that's not only aligned with these changes, but plays a proactive role in driving the evolution into a **smart and sustainable economy**. While sustainability of our economic system is an existential goal we strive towards, smart technologies enable us to achieve this goal on the necessary scale.

Smart Sustainable Village

Conceptually built rural villages in connection with the use of modern technology can be defined as “Smart villages”.

The name Smart village SUN stands for **Smart Unspoiled Nature**. The village will offer an exceptional living and working environment for entrepreneurs, company staff, researchers and digital nomads that practice hybrid models of work and are driven by sustainability and innovation. Even more importantly, it will serve as a **model for a self-sufficient, smart society** and will be actively involved in developing solutions towards a sustainable, circular economy.

Located in the Koroška region in the north of Slovenia and embraced by clean nature, it’s perfect for those looking for quality accommodation, hybrid work and rich opportunities for outdoor activities. Inhabitants of the village (both permanent and temporary) will be able to enjoy:

- self-sufficiency in water resources and partial self-sufficient food production (gardens, greenhouses),
- high energy self-sufficiency with renewable sources (photovoltaics with intelligent networks for collection and distribution, including charging and storage of electricity from cars),
- sustainable heating (biomass, sun, heat pumps),

- use of a shared kitchen with a restaurant, managed by the resort manager
- use of on-site recreational and relaxation facilities (swimming pools, saunas, fitness)
- many opportunities for outdoor activities (walks, hiking and biking trails, horseback riding, proximity to ski resort and sports airport…),
- sharing economy (shared e-mobility, joint ordering from local organic farms and stores, coworking spaces, shared facilities such as laundry, irons, parking space...),
- the possibility of using local childcare and playground,
- state-of-the-art technological infrastructure and connectivity enabling remote work, remote monitoring and management of electricity supply and consumption, remote protection of facilities, e-learning, e-health…,
- proximity of all necessary healthcare infrastructure,
- the possibility of getting to know ethnological peculiarities.

Space as a Service and the Hybrid Ecosystem

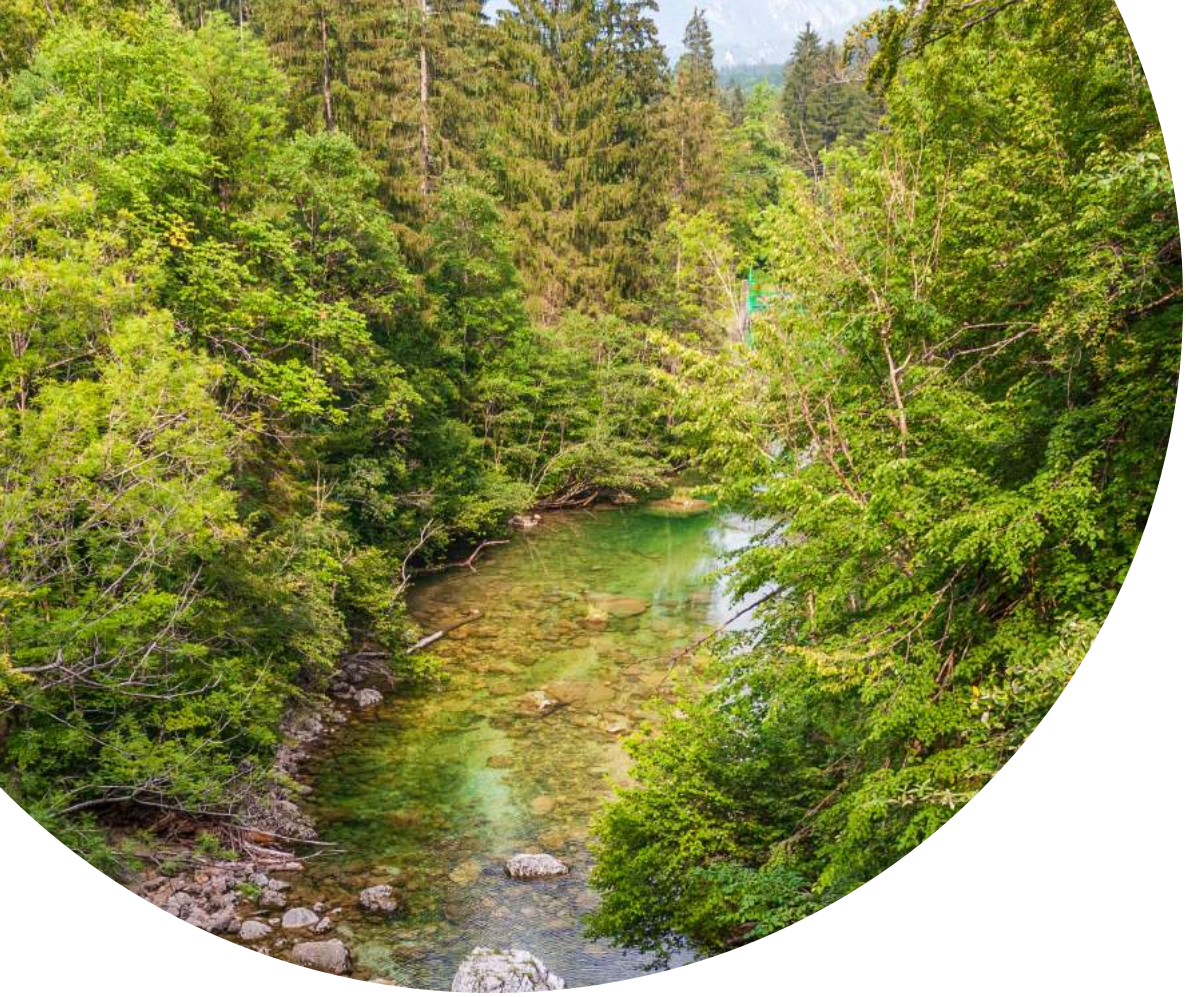
The goal of Smart village SUN is to **physically and virtually connect stakeholders** who want to participate in the innovative development of much-needed **systemic changes** for the future of our planet. In addition to high quality accommodation, we want to provide businesses with an opportunity to pilot their innovations, test them in the real ecosystem and offer their experts and researchers work options that boost their creativity and motivation.

In order to achieve this, we need to extend the ecosystem way past the limits of the physical village. This is why **hybridity is a key part of our value proposition**.

A **digital platform** will facilitate this extended hybrid ecosystem and allow stakeholders to also be actively engaged in the development by being present virtually. This way, innovations that will be piloted in the village can be quickly scaled up and implemented in larger systems. With the development of Metaverse, the platform can become a **distributed global Living Lab** for Research, Development and Innovation (RDI), simulations and demonstrations.

Hybridity is also reflected in the core business model. Part of the physical and virtual capacity will be offered as **Space as a Service (SPaaS)**. This enables living, working and leisure capacities to be shared among a greater number of users. In contrast to traditional ownership models, where an asset (such as space, a car or virtual capacity) is unused a large portion of the time, this model optimizes utilization, facilitates collaboration and innovation and provides flexibility to match the needs of the users. The success of “as a Service” and “sharing” models has already been demonstrated across industries, from cloud computing and coworking to Airbnb and car sharing.

All the enabling technologies already exist, such as **Real estate tokenization** that enables secure distributed fractional ownership and **NFTs** that enable trading digital assets. By implementing them in a functioning circular micro-economy of the village, we can clearly demonstrate their real utility that can be replicated at larger scale.

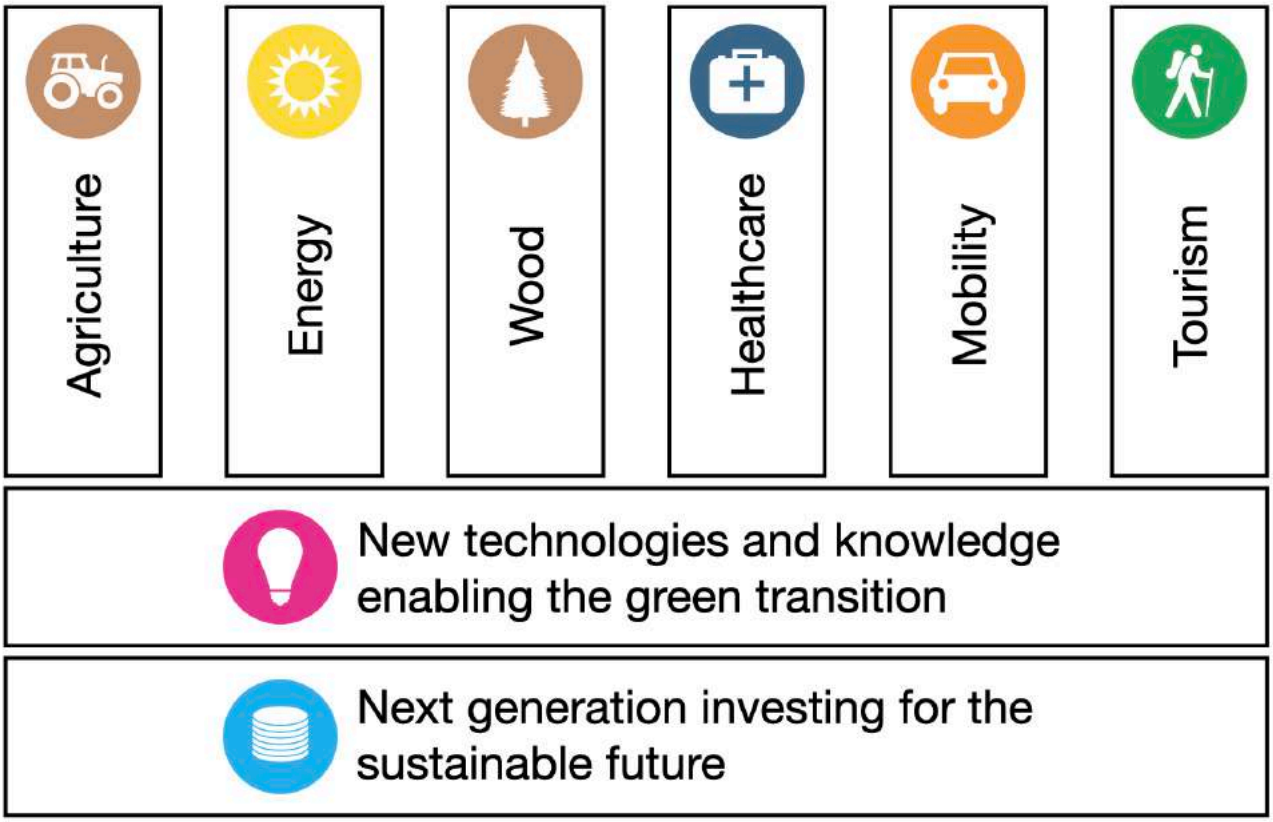


Smart Sustainability and the Rural Circular Economy

Slovenia has been chosen as the country to implement Deep Demonstration, aiming to become the **world's first fully circular national economy**. That means the village has an ideal supportive environment for circular solutions to breed.

The Koroška region where the village is situated is full of natural resources such as wood and clean water, which makes it a great place to **test and pilot short, closed-loop value chains and solutions** that can then be replicated in larger economies. For companies working on such solutions, this is a unique opportunity to pilot them in a small, but real environment, and also test them in the real market. The focus will be on the primary areas dictated by the local environment:

- Wood and circular wood value chains with an emphasis on circular construction and Near Zero Energy Buildings (NZEB) in combination with other natural materials. Careful management of CO2 sinks, wood regeneration and new business models with wood products will also be explored.
- Agri- and Horticulture with an emphasis on organic food production and the introduction of new food production methods, such as vertical farming. Implementing short supply chains with traceability and introducing new forms of food sales and delivery will better connect stakeholders in the food sector and facilitate an efficient, sustainable use of resources for maximum impact.
- Renewable and efficient energy, smart photovoltaics, IoT, energy storage and micro networks with the possibility of autonomous operation. Innovative smart platforms for managing self-sufficiency and efficient (non) use of energy are also a subject of research and innovation and the village is a perfect pilot and test space for companies developing them.
- Rural sustainable mobility of people and goods on land and in the air for a green future: multimodality, sharing of scooters, bicycles, vehicles and aircraft, autonomous management, various uses of drones, micromobility ("first and last mile"), data collection and use as an integral part of new business models.
- Rural healthcare using telemedicine and digitalization of remote care.
- Tourism 4.0 and 5.0, in accordance with Strategy for the digital transformation of Slovenian tourism 2022-2026. This strategy steers Slovenia towards becoming the best example of a smart destination that strengthens and supports the development of sustainable, boutique and personalized experiences.
- Hybrid learning, focused on awareness, knowledge transfer and best practices in the above areas. Leveraging concepts such as extended reality and open educational repositories, we can transform silos and rigid curricula into engaging modular micro credential courses, suitable for all generations and learning needs.
- Cooperating in the development of the digital twin of Slovenia for the green sustainable transition and the circular economy (data-driven detection of inventory, solutions and knowledge).



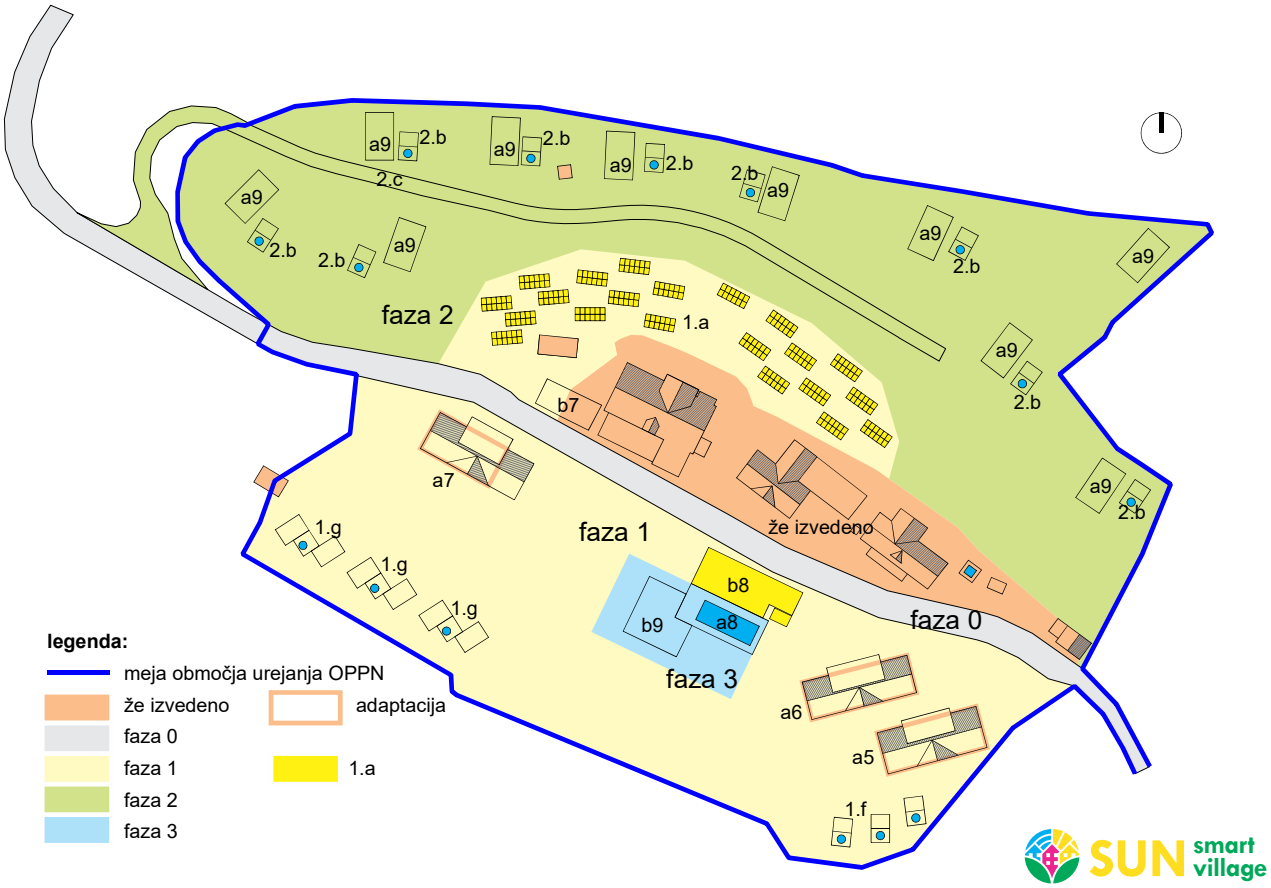
Thematic pillars of Smart Village SUN

The Koroška region borders the Savinjska-Šaleška region in which the National Strategy for Coal Exit and Restructuring of Coal Regions has already been implemented. In cooperation with regional stakeholders, it will be a center for knowledge transfer and good practices for new jobs of the future. With such a large-scale restructuring (systemic at the state level and in both regions), it's necessary to introduce solutions for the future already today. Smart village SUN as a "training ground" is essential for a rapid transition from development to practical implementation and scale up.

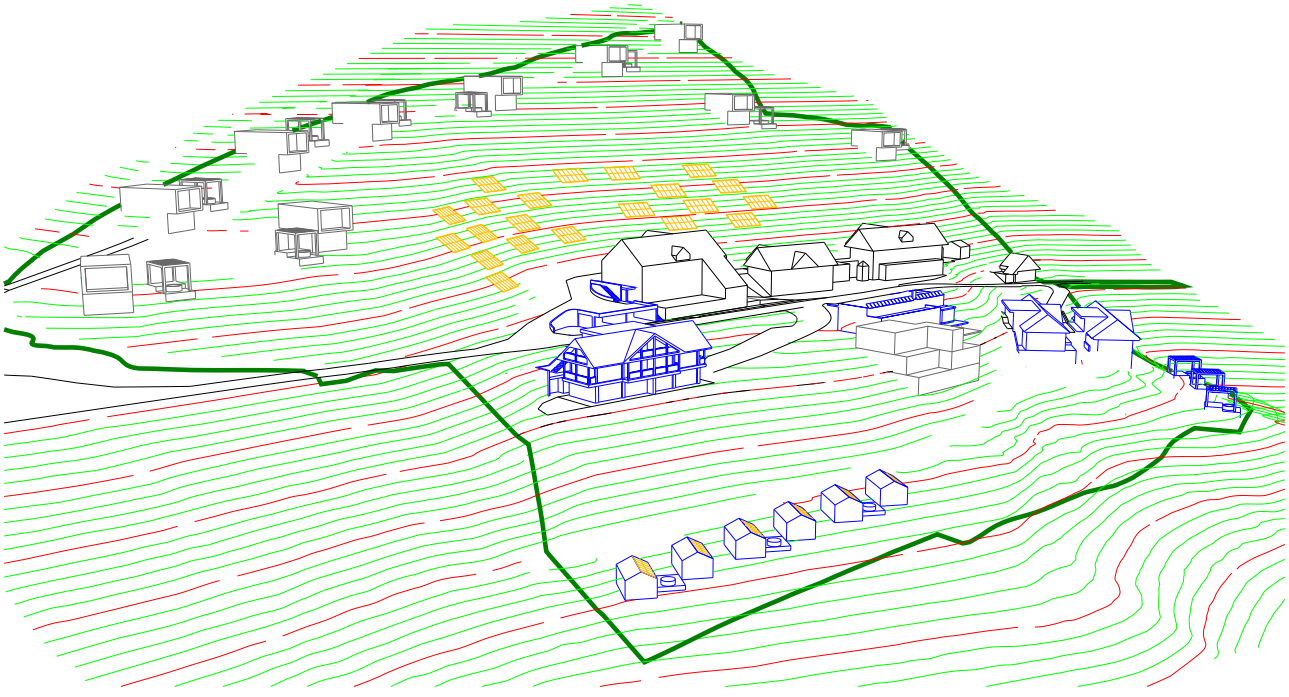
Existing and Planned Construction

Current look of the village with existing objects

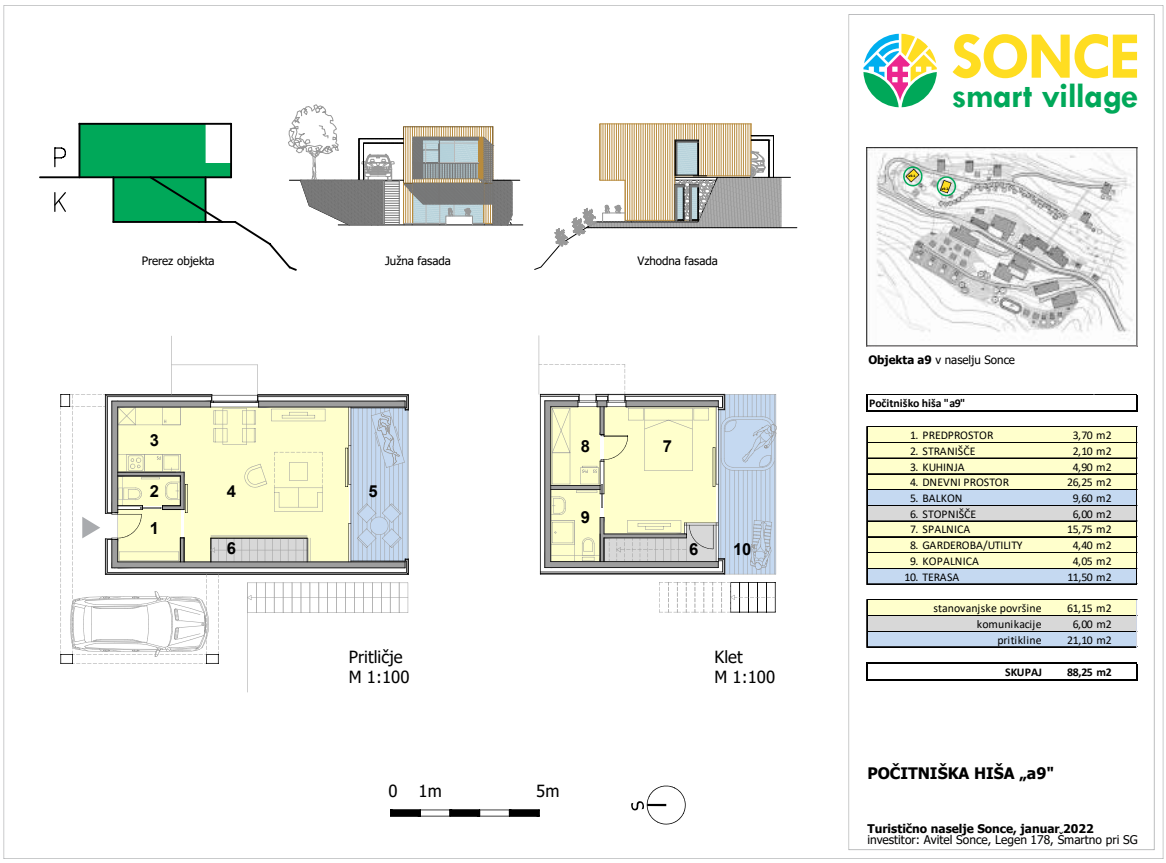
The area of the village under the municipal detailed spatial plan (OPPN)



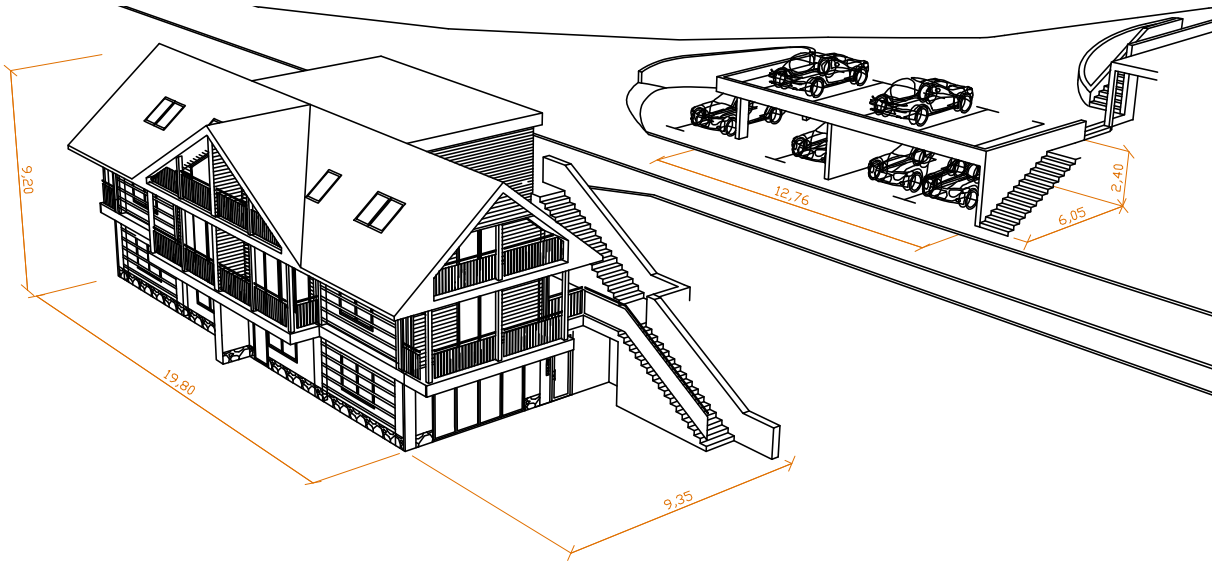
OPPN (municipal detailed spatial plan) - published here, with the **possibility of expansion in the future.**



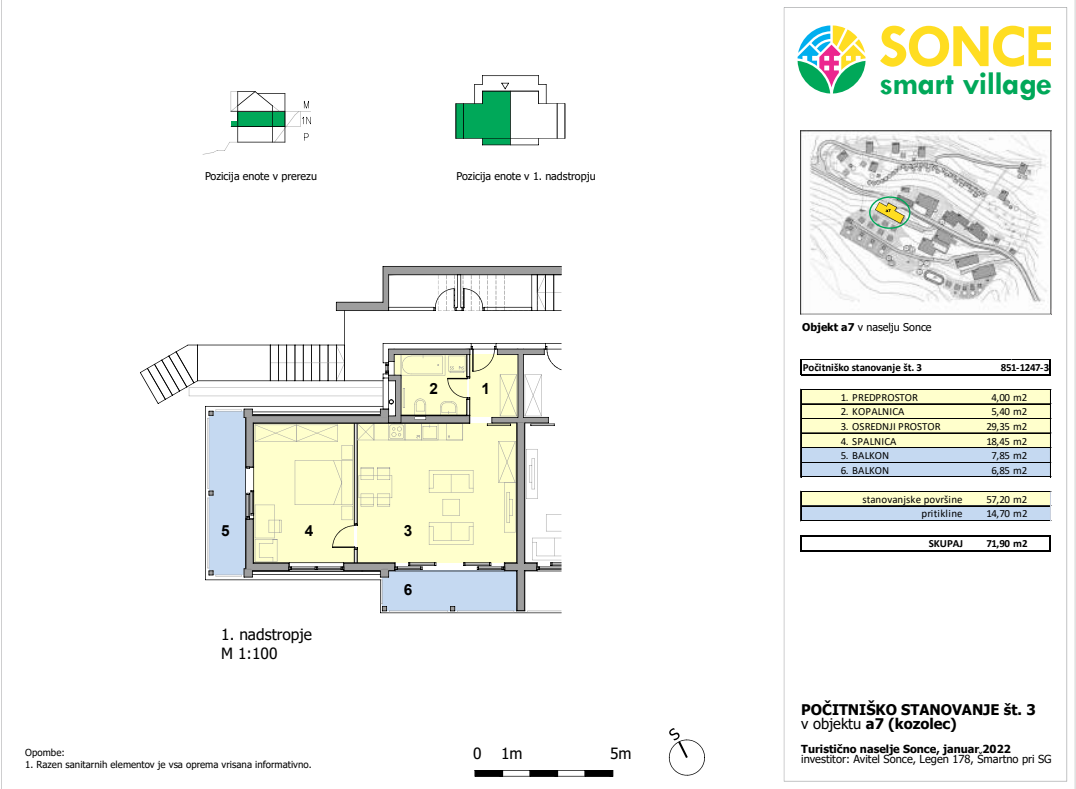
Village with all planned objects



Planned prefabricated wooden houses (labeled a9 in OPPN above) - 10 units



Reconstruction plan for a building with 6 apartments (a7)

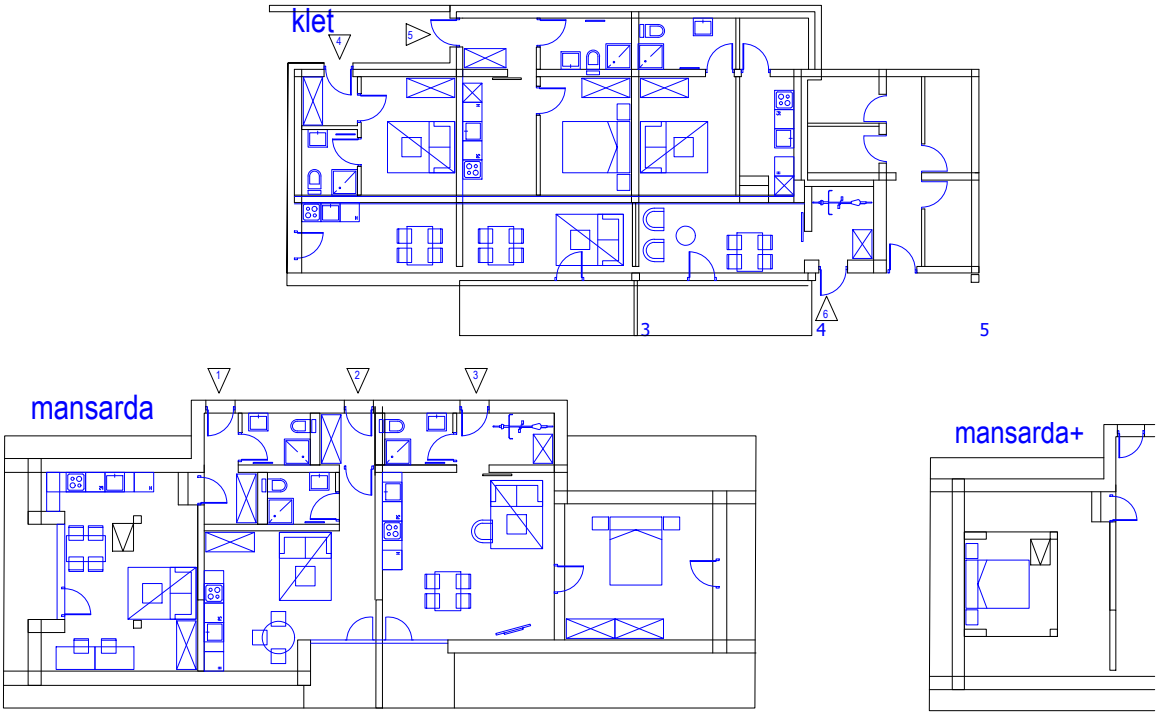


Floor plan of an apartment within the reconstructed 6-apartment building (a7)

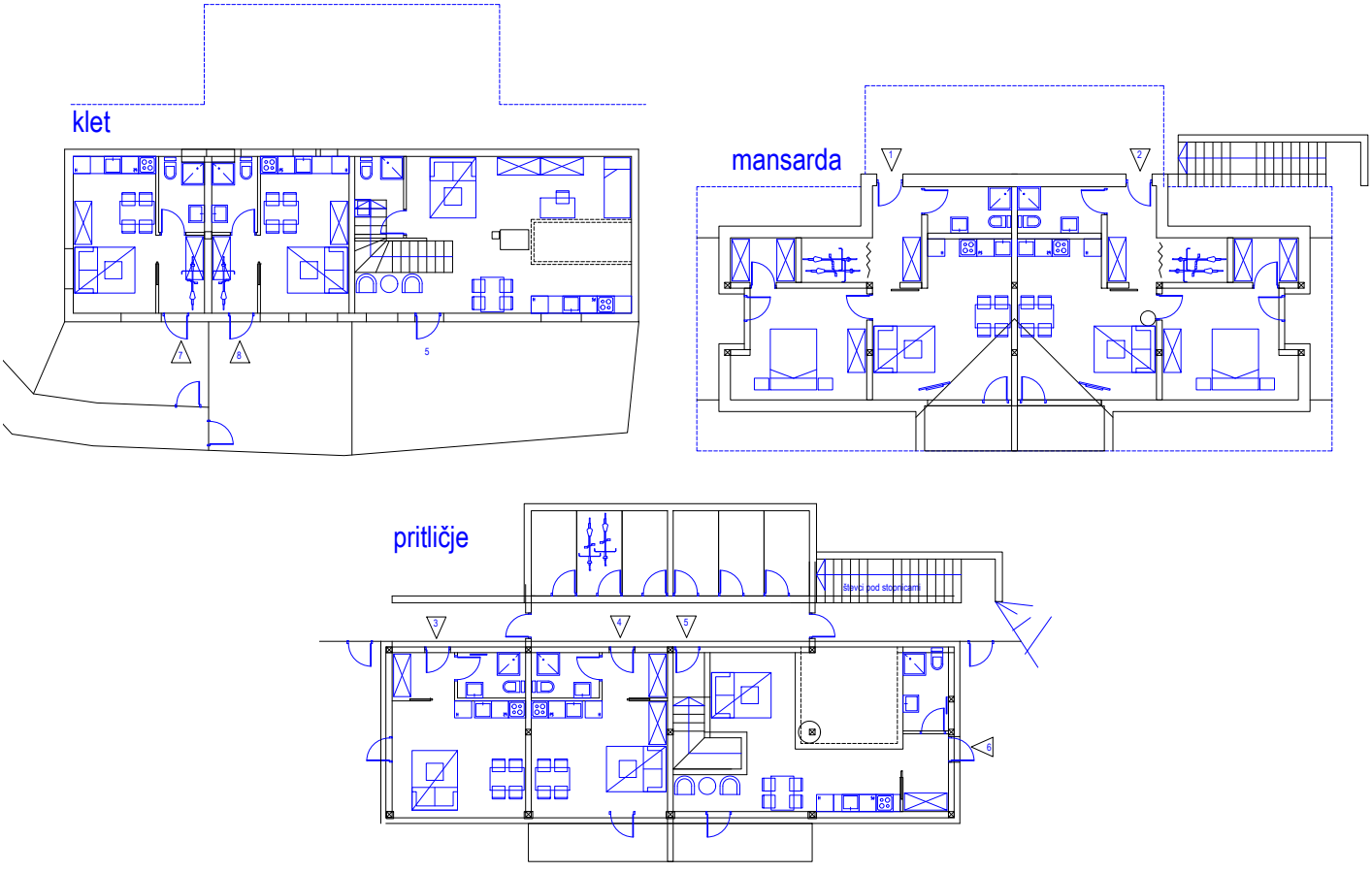
In addition to reconstruction of the apartment building a7, reconstruction of two larger buildings (a5, a6) is planned, which will include a total of 14 apartments. Another building with 3 apartments and a kindergarten (b9) and an outdoor swimming pool (a8) will be built. The total built and planned capacity of Smart village SUN within the approved municipal spatial plan is about **100 people**.

A photovoltaic power plant and smart management of all energy sources, loads and storage facilities (including electric charging stations) are planned. We also envision novel solutions to be developed in the ecosystem for autonomous energy management and trading, as well as for combining with other utilities.

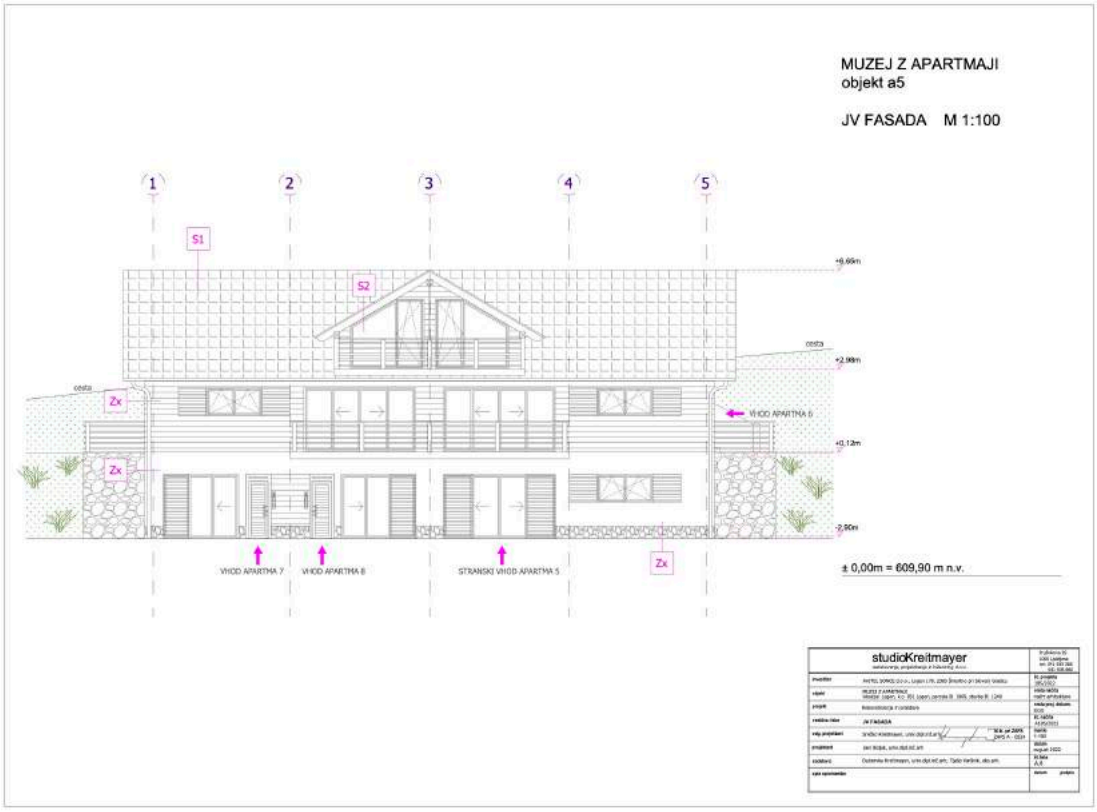
A new energy hub will also be built (b8) for co-generation and management of heat and electricity from different sources.



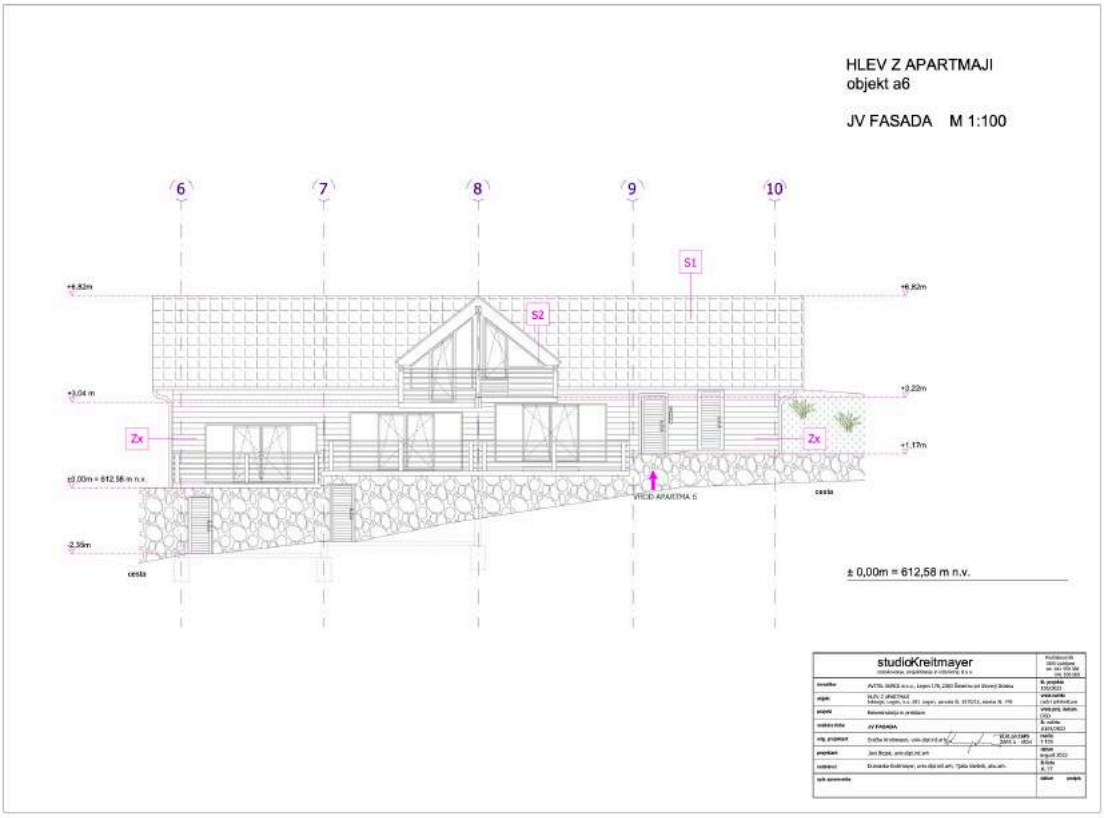
Floor plans for reconstruction of building a6



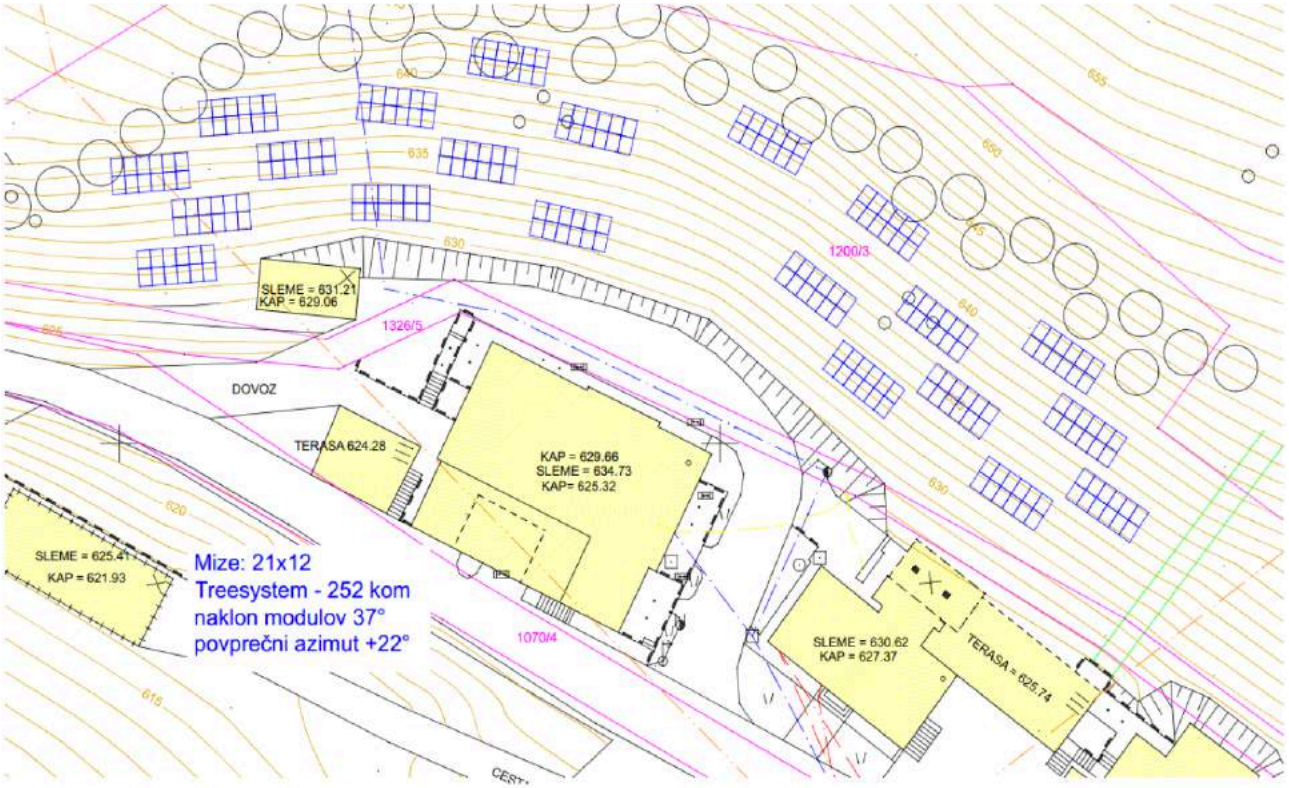
Floor plans for reconstruction of building a5



Front view of planned reconstructed building a5



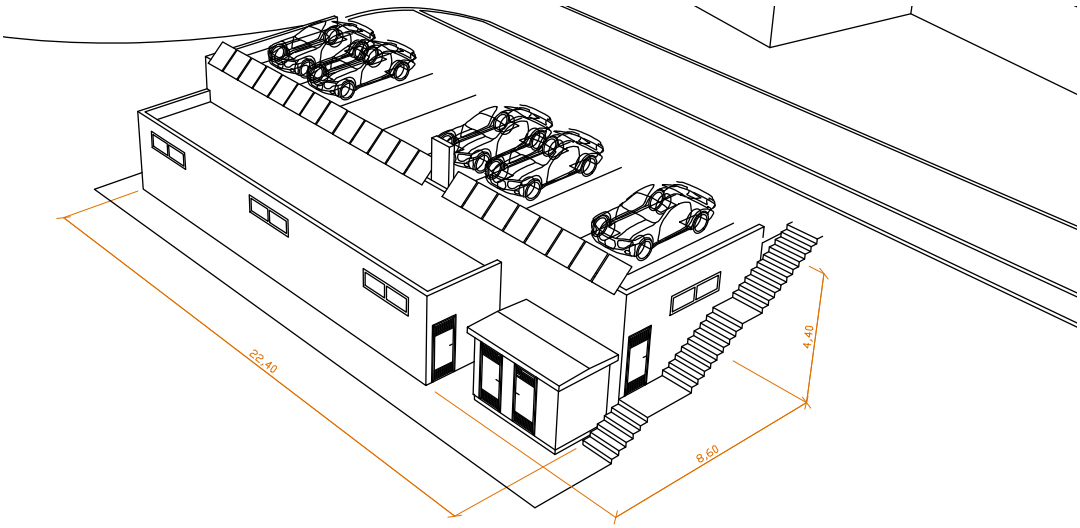
Front view of planned reconstructed building a6



izvedba	število modulov	moč modulov (Wp)	inštalirana moč (kWp)	naklon (°)	orientacija (°)	konstr. rešitev	pričakovan sp. izplen (kWh / kWp)	pričakovana letna proizvodnja (MWh)	informativna cena na enoto (€/Wp)	skupna cena na ključ (€)	če pridobljena subvencija** (€)	letni finančni rezultat*** (€)	enostavna vračilna doba investicije brez subvencije (let)	enostavna vračilna doba investicije s subvencijo (let)
s string razsmerniki	564	450	253,8	37	22	TS	1.150	291,9	0,725 €	184.005,00 €	147.204,00 €	29.187,0	6,3	5,0
z optimizatorji	564	450	253,8	37	22	TS	1.170	296,9	0,800 €	203.040,00 €	162.432,00 €	29.694,6	6,8	5,5

* Gre za informativne ocene, narejene na osnovi omejenih podatkov. V primeru vaše pozitivne odločitve bi na lokaciji opravili podrobni ogled, izmerili horizont (morebitno senčenje) in posledično korigirali izračune.
** Nepovratna sredstva Ministrstva za infrastrukturo v višini 20% investicijske vrednosti.
*** Pri prodajni ceni elektrike € 100 / MWh, brez inflacije.

Planned photovoltaic power plant



Planned energy hub (b8)

Strategic Partnerships

EIT Climate KIC and the framework of "A Deep Demonstration of a Circular, Regenerative and Low-Carbon Economy in Slovenia": According to EIT Climate KIC, Slovenia has every chance to become the first country with a completely circular economy in the world. Smart village SUN has a strong potential within Climate KICs Deep Demonstration framework that's being implemented in order to achieve this goal.

Slovenian Dutch Business Platform (SDBP), the first digital business platform for networking and cooperation between companies and RDI institutions from Netherlands and Slovenia, is one of the breakthrough stakeholders in the project. Smart Village SUN will become a demonstration, educational and training center of the Slovenian-Dutch partnership in the areas mentioned above and as such a decentralized demo center in the field of smart sustainability and green transition. SDBP in cooperation with the **Slovenian Global Business Network (SGBN)** enables rapid knowledge transfer and real-time cooperation of Slovenian companies and scientists from around the world.

Slovenian Construction Cluster (SGG): In the field of circular construction, Smart Village SUN wants to become a hybrid center of the Circular Construction Network for transfer of European achievements to less developed countries.

In cooperation with the Netherlands, Slovenia is a global frontrunner in the field of smart villages and circular economy, which was also confirmed by recent events within the EXPO 2020 in Dubai: Rural areas in 2040: Addressing global challenges of rural areas with Smart Villages.

Investment Opportunity and Offer

Obtained permits, consents and the entire development project itself are an excellent basis for attracting investors who bet on green transition and circular economy.

The project is owned by the company Avitel Sonce. Valuation of the company (based on the value of existing and planned assets and revenues generated by those assets) is projected to be at least 6.5 million € by the end of June 2025, when the project will be completed. This is a low-end projection and the real valuation will grow considerably higher, due to the following factors:

- **Rapid development of the region**, such as construction of the "Third Development Axis" (a new highway making the region much more accessible), further construction and integration of cycling infrastructure, strategy for development and marketing of the whole-year offer of Pohorje destination, development plans and planned investments in Slovenj Gradec, Dravograd and Mislinja (offering opportunities for many strategic partnerships) and proximity of Slovenj Gradec Airport,
- legal transformation into residential area,
- Space as a Service (SPaaS) - optimised and user-centric model of revenue generation,
- planned **value-add innovation projects** within the ecosystem,
- establishing a marketplace for new conceptual villages based on circularity and zero waste, self-sufficiency and construction with bio-based materials.

Nearly half of the investment has already been completed. To complete the whole project, we offer packages based on following principles to investors who share our vision and sustainability goals:

- 48,75% share in the company stays with the original owner.
- **5 x 6,25% share is sold to strategic partners with a 36% discount**. That means that for the projected baseline value of 406.250 €, they invest 260.000 €, amounting to a 3 year ROI of 56,25%.
- **16 x 1,25% share related to the 8 thematic pillars** of the village (as outlined in the chapter "Smart Sustainability and the Rural Circular Economy"), targeting 1 Slovenian + 1 foreign investment per pillar. Shares will be sold with a **30% discount**, so investors pay 56.875 € for the projected baseline value of 81.250 €, amounting to a 3 year ROI of 42,85%. The investment can partially (up to 50%) be in equipment or services.
- All investors (shareholders) agree and commit that, on the basis of the Company resolution, the company shall offer a **20% share of the economic rights by selling digital tokens**. The share will be converted into 20,000 tokens using Blocksquare infrastructure and sold in the marketplace with a **20% discount**. Exact terms are still being discussed.

Additional perks for shareholders:

- The same discount as for the purchase of shares is also valid for the SPaaS offering
- Preferred contractors in Smart Village SUN and in next villages
- Smart Village SUN can serve as a demonstration center for their products and services
- Partnerships in marketing and sales activities
- Dividends will start being paid after 3 years - in the construction phase, all profits are invested in development
- Higher returns and investment security will be facilitated by additional Slovenian and EU funds

Above all, we want all investments to be aligned with the circular mission of the village. We're looking for investors that are interested in exploring **next generation investing** and will also contribute their knowledge and market to the project.