

# DELIVERABLE D.T3.3.2

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Report of pilot action “Garden Show”

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Authors:

Anton Schabl

Johannes Binder

Claudia Krobath





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## 1. Objectives

The objective according to the application concerns the development of a Voitsberg pilot action which aims to build a sustainable (first) cross-community garden "show" "Lipizzanerheimat" as a recreational and producing space for the peri urban metropolitan area of Graz (final goal: permanent character). Several communities of the region (Lipizzanerheimat) have to be involved by mainly renaturation of "brownfields" / former mining areas (soil improvement).

Ideally, each of the five communities of the Lipizzanerheimat should contribute one "lighthouse project" to the broad topic of gardening. Within the scope of the action plan, the following pilot actions could be implemented in close coordination with the municipalities or the target groups:

- Rosental: vegetable cultivation in a pilot glasshouses using mine water for heating
- Voitsberg: Development of a community garden, connection to existing parks (for example energy park) and gardens (Naschgarten/Obervoitsberg)
- Maria Lankowitz: new garden design at the manor house (topic wedding garden)
- Bärnbach: Energy optimization of an office property with 1600 m<sup>2</sup> usable area with a special greening (potential analysis)
- Lipizzanerheimat „garden route“: creation of a connection of all garden and park elements over the cycle way network
- Financial model: Conception of the integration of real estate as "equity" for business settlements

The following graphic gives an overview of the area "Lipizzanerheimat"

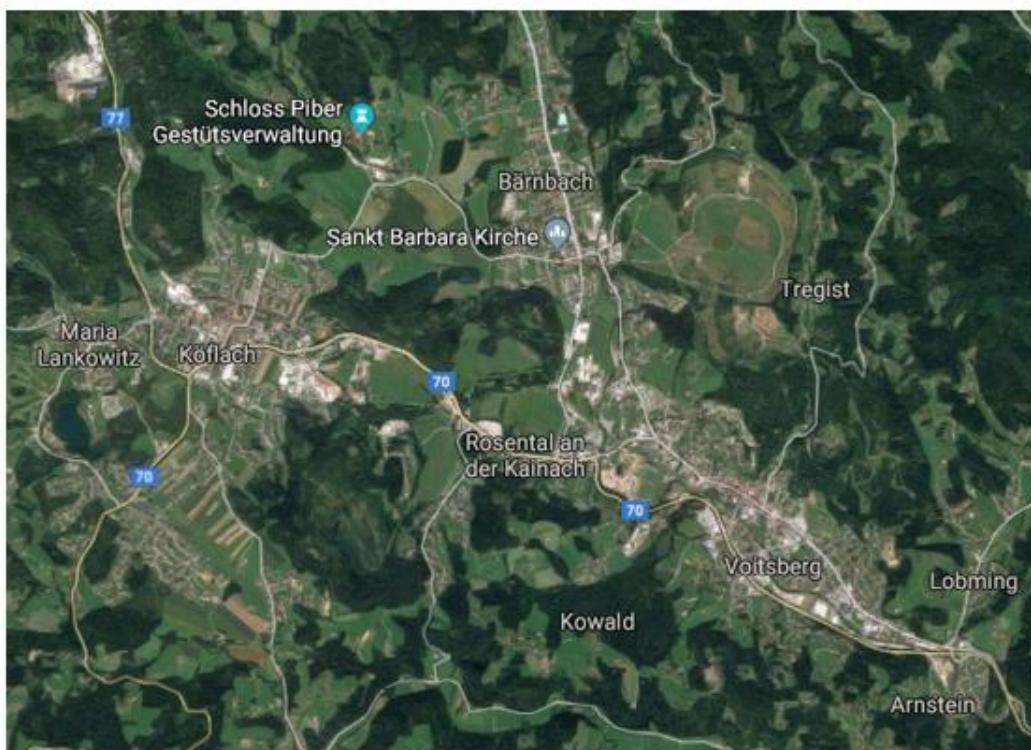


Figure 1.1: Overview Lipizzanerheimat (district of Voitsberg)



## 2. Situation/location

### Functional Urban Area of Voitsberg - The district of Voitsberg - Lipizzanerheimat

The Austrian pilot-region is a union of five communities “Kernraumallianz Lipizzanerheimat” - Voitsberg, Köflach, Bärnbach Rosental, Maria Lankowitz- and represents a typical shrinking region; i.e. decreasing number of inhabitants, break-down of former coal mining industry but with considerable land consumption at the same time.

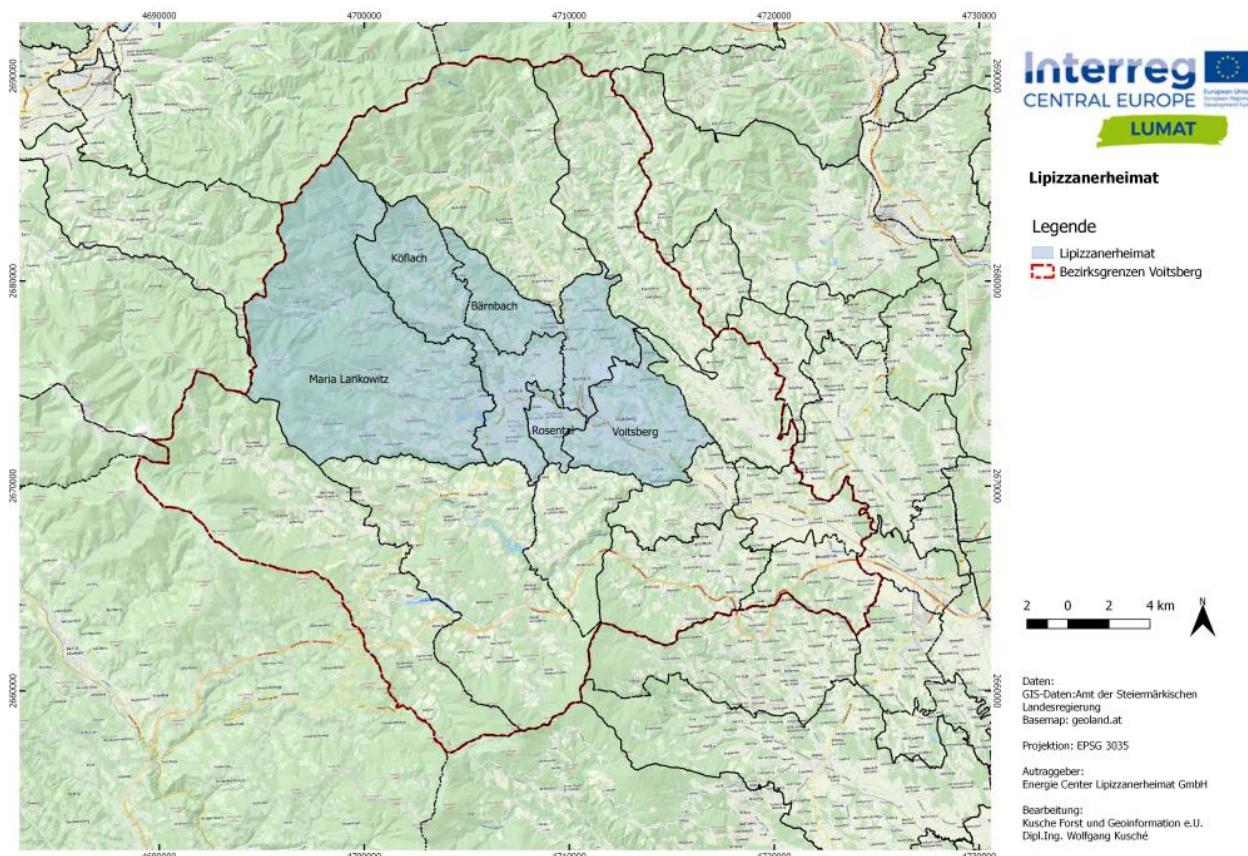


Figure 2.1: Overview Lipizzanerheimat (district of Voitsberg)

### Process of cooperation

The main stakeholders of the region were involved in regular information events (eg regular information at the meetings of the regional development association Voitsberg (REV)), information to the mayors, close contact with the regional management).

Several stakeholder workshops (decision-makers, mayors, landowners / mining companies, etc.) were held to address existing ideas and wishes and to discuss the proposals developed by the Energy Centre. There were also a number of one-to-one interviews with the mayors and the heads of administration (5 municipalities of the Kernraumallianz Lipizzanerheimat).



### 3. Pilot actions

#### 3.1. Municipality Rosental: Mine water use for a pilot heating greenhouse

Based on a potential analysis for the heating of greenhouses with mine water (winter vegetables using the waste heat) on a former mining area provided clarity for the implementation and at the same time provides a comprehensible data basis for interested parties. In a second step, the garden house was set up as a pilot implementation and the marketing measures for interested parties start.



Figure 3.1: Aerial view of the site greenhouse

The local proximity to the heating medium or pump house is given. An increase in usable space due to a possible extension of the greenhouse is given, as there is enough space for the construction of additional greenhouses on the adjacent former mining site.

For several years mine water has been pumped out of a depth of approx. 10 meters in the municipality Rosental in order to keep the groundwater level low.



Figure 3.2: Unused mine water



Figure 3.3: Pumphouse



The mine water from the former mining is pumped up and almost unused into the Gradnerbach initiated. At present only 3% of the available energy is used. A car dealership with about 1000 m<sup>2</sup> heated with it, the rest is derived in the Gradnerbach.

Since this water has a temperature of about 9° -11° C even in winter, this will now be energetically used for vegetable cultivation. With the heat of mine water, it is possible to temper greenhouses or to keep them frost-free. Via collecting pipes is the heating of the soil.

A pilot greenhouse, floor area 40m<sup>2</sup>, was built for summer and winter vegetables, which will be integrated into the garden route as a show object in the future. On the underground, originally a loamy mining soil, a permeable separating layer was incorporated and applied a humus layer. In the winter months, the cultivation of winter vegetables is planned. In the growing season, e.g. tomatoes bred. In the transitional period, added value should be increased by cultivating / spiking seedlings. The ongoing operation is taken over by a competent person.



Figure 3.4: Drilling

Figure 3.5: Piping for pump

Figure 3.6: Soil cultivation and humus application

A pilot greenhouse, floor area 40m<sup>2</sup>, was built for summer and winter vegetables, which will be integrated into the garden route as a show object in the future. On the underground, originally a loamy mining soil, a permeable separating layer was incorporated and applied a humus layer. In the winter months, the cultivation of winter vegetables is planned. In the growing season, e.g. tomatoes bred. In the transitional period, added value should be increased by cultivating / spiking seedlings. The ongoing operation is taken over by a competent person.



Figure 3.7: Pumphouse

Figure 3.8: Power supply

Figure 3.9: Floor heating



The essential elements for the pilot project are:

- Greenhouse: Environmental influences according to the region (hailstorm, snow load ...) are taken into account in the static construction as well as in the thermal energy balance
- Heating system including control: Starting from the pump house, the available mine water is led into the greenhouse. An appropriate pump for transporting the mine water from the pump house to the greenhouse is installed (maximum flow rate of 110m<sup>3</sup> / h and an average temperature of 10 ° C of the mine water). A nationwide heating of the soil takes place via headers. The heating medium is then introduced into the Gradnerbach. The heating system was designed so that the tillage / soil loosening was not significantly disturbed.
- Substrate: Since the substrate consists of loamy mining soil, it was necessary to apply a permeable separating layer. On this separation layer, a humus layer, on which the cultivation of plants is carried out, was applied.
- Irrigation system: in order to achieve a largely automated operation, a simple automatic irrigation system was installed.

In addition, guided tours will be held in cooperation with schools and kindergartens (involvement of parents) to teach young people how to grow vegetables. But the domestic resources also - renewable energies and their possibilities are communicated in this way.



Figure 3.10: The pilot greenhouse



### 3.2. City of Voitsberg: Urban Community Garden

Development of a concept of a garden project on a club basis - urban community garden. This serves as a nice “entrée” for the energy park by “beautification” of the current entrance area (former mining area). The implementation will follow within a LEADER-project.

Preparation of a concept of a garden project on a club basis - urban community garden for Voitsberg

- Inquiries about this are already available in the community
- Municipality is highly interested in
- Possible area would be near the energy park (former mining area)
- Should serve as a nice “entrée” for the energy park by “beautification” of the current entrance area (former mining area)



Figure 3.11: Situation former mining area for urban community garden

#### Conception Community Garden

The garden for everyone

A public communal garden offers free space for all ages and social classes. It can serve as a meeting place for recreational activities such as gardening and cultural events, but can also be used as an educational space or simply serve after a walk. In addition to institutions, private individuals are invited to use the existing seminar room and adjacent open spaces. The rooms for seminars can be booked and the open spaces for different courses such. Tree-cutting courses, construction tracts or plant training courses can be shared with advance notice.

In addition, the green areas can be used for a certain period of time. These are allocated on the basis of informal agreements.

Special target groups

- Children:



In this way, children should be introduced to nature: It is planned to offer the community garden to interested schools and kindergartens as an educational space. Entirely whole classes or groups are invited to plant and care for different plants (trees, flowers, vegetables). This can be done during class or at leisure. In addition, the garden offers the opportunity to be the venue for recreational events (for example, during the holiday season, for the Association Kinderfreunde, etc.).

- Youth:

The communal garden offers recreation rooms for young people: The lack of public open spaces for young people often leads to them increasingly withdrawing into private rooms. They increasingly lose touch with nature and the appreciation of public goods, but also with opportunities for the free development of their personality. Often, this social exclusion leads to acts of vandalism. This negative development can, for example, be counteracted by the fact that young people can create their own rooms within a protected and supervised framework. Initiatives should be launched together with youth management to motivate young people to participate in the planning and design of open spaces.

- Socially Integrative Groups:

A special opportunity to use the community garden is suitable for socially inclusive population groups. These include physically or mentally impaired people and persons to be integrated into the labor market. Together with the institutions never left in the region (Lebenshilfe, Jugend am Werk, Mosaik, Best, etc.) projects have to be developed in the community garden. These can be, for example, regular caregiving or seasonal cultivation activities.

- Senior citizens:

Leisure activities into old age: Many retired people are interested in gardening but do not have suitable land. They live, mostly alone, in flats with no own gardens. The community garden also offers them the opportunity to use a small garden plot. Regional seniors' associations give this target group the opportunity to make use of this offer.

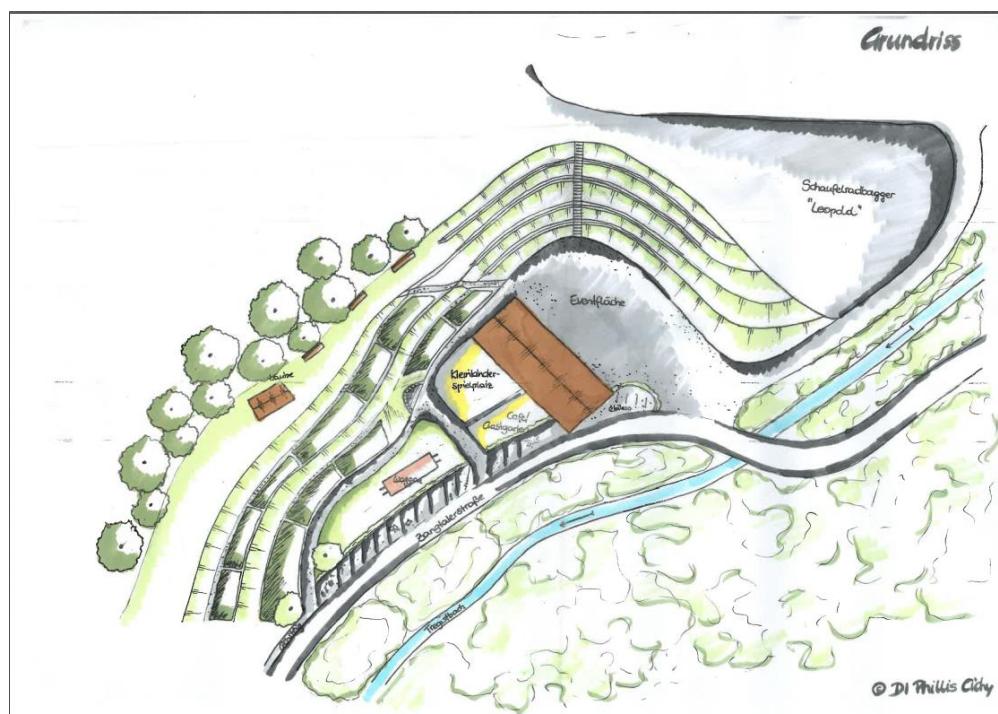


Figure 3.12: Graphic representation of floor plan



#### Structural preparations:

The existing building should remain intact and maintain the character of an event center. Ideally at least a small and a large seminar room and toilet facilities should be set up.

In the run-up to the current tenants (mountain rescue service, Bodenschützenverein Obervoitsberg) to clarify the intended use. For organizational reasons, it makes sense to keep these as tenants, but also to include them in the future development and to exploit synergies. For example, recreational events for children can be held in co-operation with the bottom archers. In addition, regular attendance acts as an additional safety factor for the users.

For the open spaces, a usage or zoning concept has to be created. This includes the installation of paved open spaces (for parking lots, temporary facilities such as market stalls, other furniture, stage construction, etc.) and unpaved open spaces. Immediately a rough zoning plan has to be drawn up to show how this local classification should take place.

Preliminary work is to be realized with autumn 2019. These will include the following construction works:

- Temporary removal of the historical objects: These are to be preserved in principle, however, are to be stored in the course of the construction activities elsewhere. After completion of the work, they should be returned to their destination (according to the zoning plan).
- Slope stabilization: There are landslides in some places. For that reason, it will be necessary to stabilize it. A terracing seems to make sense here, both from a structural and usage point of view (for example, as a grandstand in the area of the ascent to the archery area). Woody plantings can stabilize this additionally, but are to be carried out in the course of seminars / courses.
- Remodeling work in the existing building: A demolition or new building appears to be inappropriate for cost reasons and from the point of view of future use. Instead, an architectural design is to be worked out, which provides for the conversion to an event building. This can be done, for example, in the course of design exercises by students of Graz University of Technology (Department of Architecture). Implementation should preferably be carried out with regional companies.
- Dredging for garden parcels: As preparation for the introduction of humus rich topsoil, a soil replacement of the top 50 cm is necessary.

#### Other preparatory work by the municipality of Voitsberg:

For the community, a contact person must be named, who represents the interests of the community in organizational matters of the communal garden. For a smooth and uncomplicated process, a responsible person must be appointed who can process inquiries and take over any activities around the community garden.

These can be:

- Advertising activities (creation of folders, websites, newspaper advertisements)
- Creation of agreements for the use of function rooms and open spaces
- Furnishing and organization of the spatial equipment (locker system, use of WC via chip, lockable cabinets for garden tools, garden tools, etc.)
- responsibilities for ongoing activities (eg event organization, unlocking service, technical service, cleaning service in the premises, etc.)



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In close cooperation with the City of Voitsberg, an approved LEADER application was adapted on the basis of the detailed activity, time and cost plan developed within the framework of LUMAT in order to implement these activities. The planned costs are budgeted at € 95,000.



### 3.3. City of Bärnbach: Energy optimization of an office property with a special greening (potential analysis)

The pilot project for Baernbach includes a potential analysis to reduce the cooling load of a façade greening for an office building with 1600 m<sup>2</sup> of floor space.

Facade greening has advantages that make an active contribution to environmental and nature conservation on the one hand, and lower operating costs over the long term depending on the type of building. Mainly by cooling effect in summer and heat-insulating effect in winter (depending on the system). Likewise, these have a positive influence on the local microclimate (less dust, humidification and less pollutants)

In the course of optimizing the energy use of an office property with 1600 m<sup>2</sup> floor space, the south-facing façade should be enriched with a special greening in terms of energy efficiency.

The idea is with plant troughs and trellis in front of the south facade (in the rear ventilated area) to pull various crops over the summer and remove the foliage in the fall.



Figure 3.13: Situation test building

The following questions have to be clarified by a potential analysis:

- The greening should on the one hand have an optical effect and on the other hand bring considerable savings in the cooling of the object.
- The façade is equipped with a glass porch where it is possible to optimally install the greening infrastructure.
- In the selection of the planting, it should be taken into account that, on the one hand, extensive shading of the glass surfaces can take place during the vegetation period and, on the other hand, that light can enter the premises in the transitional period and in winter.
- As enrichment and attraction in addition to the vertical greening new developments such horizontally growing plants should be used.



### Project assumption:

The "green facade" is to be built with plant troughs and climbing aids in the back-ventilated area (about 150 m<sup>2</sup> facade area).

### Green facade

Through the use of various crops as greening (beans, tomatoes, ...), shading takes place only in summer to early autumn. When the vegetables have been harvested, the plants are cut back. As a result, in winter (heating season), the solar energy can re-enter the building and support the heating. This represents an ideal utilization of the facade greening.

The reduction of the introduced solar radiation takes place only in summer. The reduced energy can be calculated using a calculation analogous to the energy bill (orientation facade, window size, global radiation, reduction factors for greening). In normal shading, a shading factor, the window, of 0.75 is used.



Figure 3.14: Photomontage "green facade"

By shading the plants, a shading factor of  $z = 0.3$  can be assumed. This reduces the outside-induced cooling capacity by 3 130 kWh. This saves 224 kg of CO<sub>2</sub> per year

### Costs:

It is planned to place the plant troughs on the concrete base behind the ventilated facade.

In the literature (Leitfaden Fassadenbegrünung, MA22 Vienna) we call this a façade bond greening with selective planting.

As construction costs in the literature € 400 - € 2,000 € / m<sup>2</sup> are called. After a rough calculation of the investment costs, 350 € / m<sup>2</sup> are assumed for this building.

With an area of 150m<sup>2</sup>, the investment costs amount to € 52,500.



### 3.4. City of Köflach: Spa garden

Development of a concept for a spa garden and creation of an application (LE 2014 - 2020) for village renewal

#### Summary

For decades, the area around the Dechantteich in Köflach has been both a popular recreational area and a sporty attractive terrain course for citizens of the city and in the entire Lipizzanerheimat. In the course of a comprehensive LA21 public participation process, the needs and demands of the citizens and spa guests at the recreational area could be determined. The focus is on the desire for relaxation and tranquility (as a counterpoint to the Motorik-movement park), followed by the opportunity to use the area for various cultural and sporting activities for several generations.

The objective of the project is to increase the existing recreational area for spa guests of Therme Nova on the one hand and the local population on the other hand. The adjoining forest area around the chapel at the Dechantteich is to be transformed into a spa park. Here, the basic character of the spa forest to meet the sensory experience: The five senses seeing, hearing, smelling, tasting and tasting should be implemented in different ways landscaped in three zones of use.

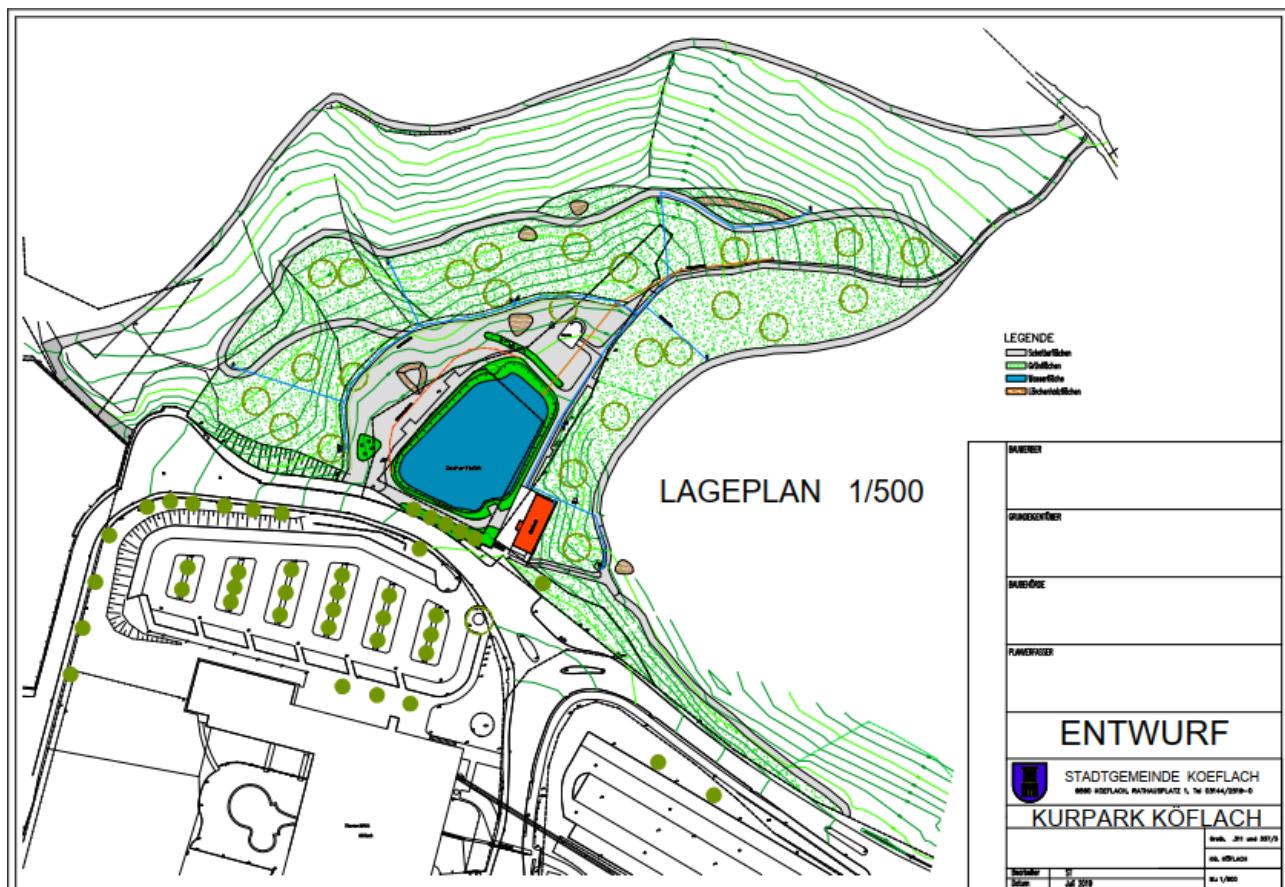


Figure 3.15: Graphical conception overview situation

Planting:



The zoning of use takes place in three areas, according to which the planting is oriented:

1. Pond area: Intensive use for recreation and the medium-length (maximum 1-hour) stay

- Entrance situation: Blood beech should complement the right access side (from Piber) and lead to the area
  - Circuit around the pond should be preserved: gravel surface
  - Recreation area with seating and reclining areas, relaxation and reading zone: gravel lawns
  - Raised beds with integrated seating (wood overlay): Wildflower seed, v.a. Herbs
  - Area bordering, edge zone: hedges and shrub plants (including berry fruit), aromatic plants

## 2. Walking area, recreation area: exercise and sensory experiences

- Scarred vegetation, typical of beech oak-oak forest including shrub and herb layer (undergrowth): The stock is to be thinned, preserved trees remain, the rest are reforested
  - Elements of the sense experience: barefoot path, wooden platforms, leaf bed, etc. (extent of the number of elements must be clarified)

3. Forest area, transition to the existing stock: The type of mixed forest typical for this altitude is to be preserved, eventually the number of spruce trees has to be reduced and occasionally replaced by firs

### Furniture:

- Seating and lounging possibilities: wooden platforms in the style of the Nova-Os with different focus of use (sitting or lying down)
  - Ranks: grid in column form
  - raised beds: large raised beds in the style of the Nova-Os with integrated seating surfaces

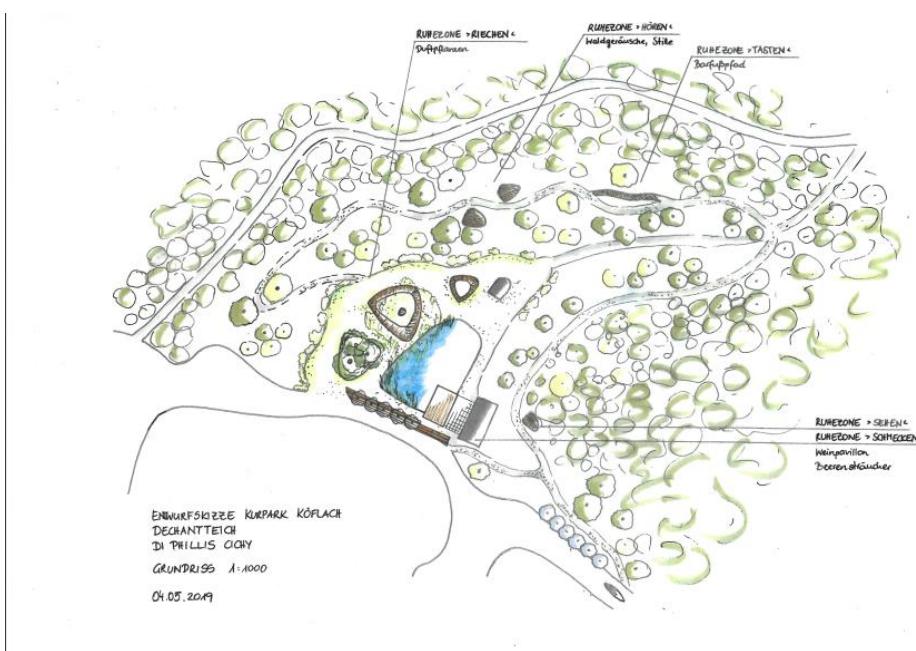


Figure 3.16: Graphical conception spa garden



With the project, the wishes of the respondents are largely realized: The project offers both relaxation seekers (a forest path as a sensory experience and attractive seating and reclining facilities) as well as active enough space for event facilities.

The spa garden (Kurpark) in Koeflach covers € 197.040,- (LE 2014 - 2020, village renewal).

The application was submitted on 17.05.2019



### 3.5. Maria Lankowitz: Preparation of a village renewal project

Creation of an application (LE 2014 - 2020) for village renewal: creation of garden areas for the new unique selling point "weddings" in Maria Lankowitz. LE 2014 - 2020 need a 2-step procedure (planning and implementation) - the requirements for funding are clarified.

#### Manor house park (Schlosspark) Maria Lankowitz"

The design is a combination of the basic characteristics of a classic baroque palace park with local historical elements. It combines different usage topics (wedding pavilion, relaxation area, play area).



Figure 3.17: Situation in Maria Lankowitz (manor house and area for the park)

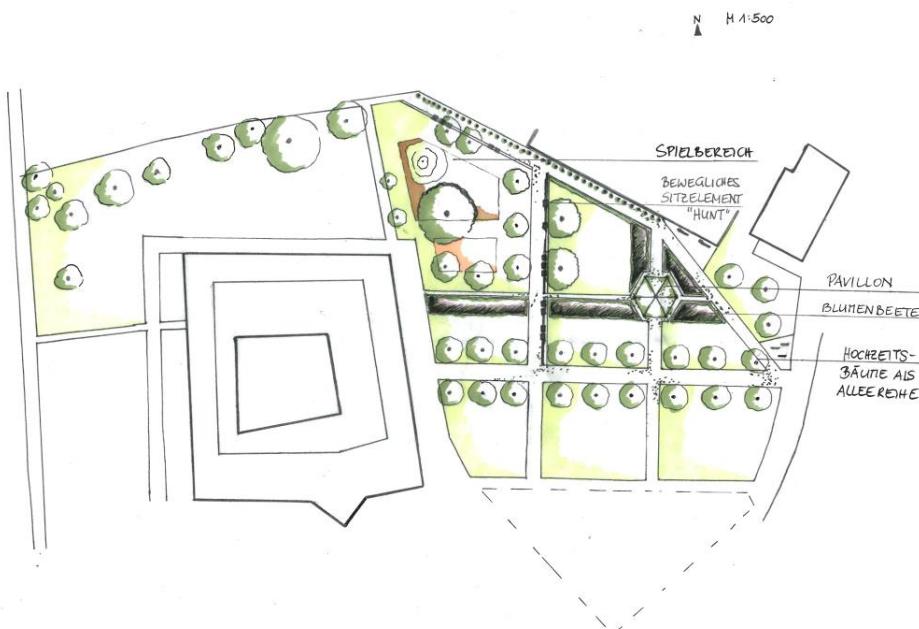


Figure 3.18: Graphical conception of the wedding garden



Allee:

The one-sided avenue row is to be supplemented by a second row with similar trees. The planting of these trees is different in time. Each tree is planted as a wedding tree by a bride and groom. In the final form, the access area to the main entrance of the castle receives a uniform avenue image.

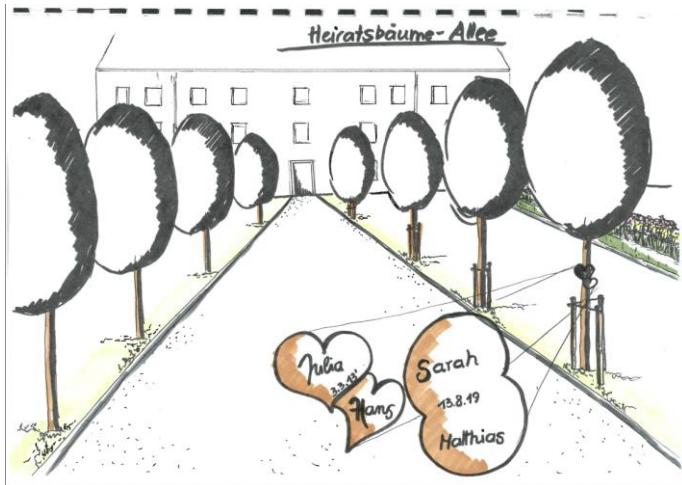


Figure 3.19: Conception of the element allee

Pavilion:

The pavilion (white) is a hexagonal metal frame with a diameter of about 7 meters and is covered by different flowering climbing plants (roses, clematis, etc.) (see Figure 1).



Figure 3.20: Wedding pavilion

Metal tube screen:

The screen from approx. 3 meters high metal pipes (diameter about 6-8 cm) with a planned greening of climbing plants (ivy, wild wine, clematis, etc.) is used to hide the underlying private wall. In the figurative sense, it symbolically represents the former use of the castle as a ladies' prison. Through its arrangement, it simultaneously allows one to walk through and thus represents the interlocking of "outside" and "inside".



Figure 3.21: Conception metal tube screen

#### Flower beds:

a classic element of the baroque castle gardens is implemented here in four fields. The beds are arranged block-shaped, whose planting takes place to the middle range of the stature height after ascending:

- Border area: low hedge in the cuboid shaped cut (about 50 cm)
- perennials (about 70 cm)
- wood / shrubs (about 1 meter)



Figure 3.22: Cross section of a flowerbed

#### Playground:

The existing game elements are displaced locally. The playing fields are based on the Baroque floor plan. The planting is relaxed and their arrangement serves as a shadow donation. A large linden tree (the coat of arms tree of Maria Lankowitz) acts as a central design element. The existing planting remains.

#### Furnishing:

Benches in the form of hunts (seat height approx. 45 cm) from the mining industry serve as seating elements. They are guided on a simple rail system (iron gutter) and are covered with wooden floorboards. Individual elements can be pushed together in groups. To increase the rolling resistance, the Hunte are filled with black stones (or lignite). As a result, the displacement is prevented by children's hands or rolling while sitting.



The planned park (wedding garden in Maria Lankowitz will probably get € 15.000,- for the planning phase and € 150.000 for the implementation phase (LE 2014 - 2020, village renewal).

### 3.6. Lipizzanerheimat: „Garden route“

The aim of this pilot project is to connect the existing park and garden areas with the newly created gardens as part of LUMAT via the existing cycle path network with regard to a recreational area for the region and Graz.

The following steps are required for this:

- Collection of all parks, gardens, etc. in the communities
- Transfer of the data into the GIS
- Supplement the data with current photos
- Connection of the "gardens" over cycle paths
- Presentation in map form
- Handover to the Regional Management Lipizzanerheimat for the new cycle path concept
- Handover to the municipalities and the tourist board.

Methodical approach:

In a first approach, the existing cycle routes of the Lipizzanerheimat were integrated into the GIS data of the LUMAT project. From the data of the land use plan, the as

- park
- recreation areas and areas
- bathing facility
- sports surfaces
- home gardens
- playground

dedicated areas and displayed together with the existing cycle routes. For each community the corresponding maps were created. These were forwarded to the five municipalities for processing or supplementation.

These supplemented databases like

- bicycle lanes on roads
- bicycle suitable side street
- more "points of interest" etc.

or changed data like,

- no longer current dedications
- changed routes etc.



were incorporated into the data set, supplemented with images and redrawn.

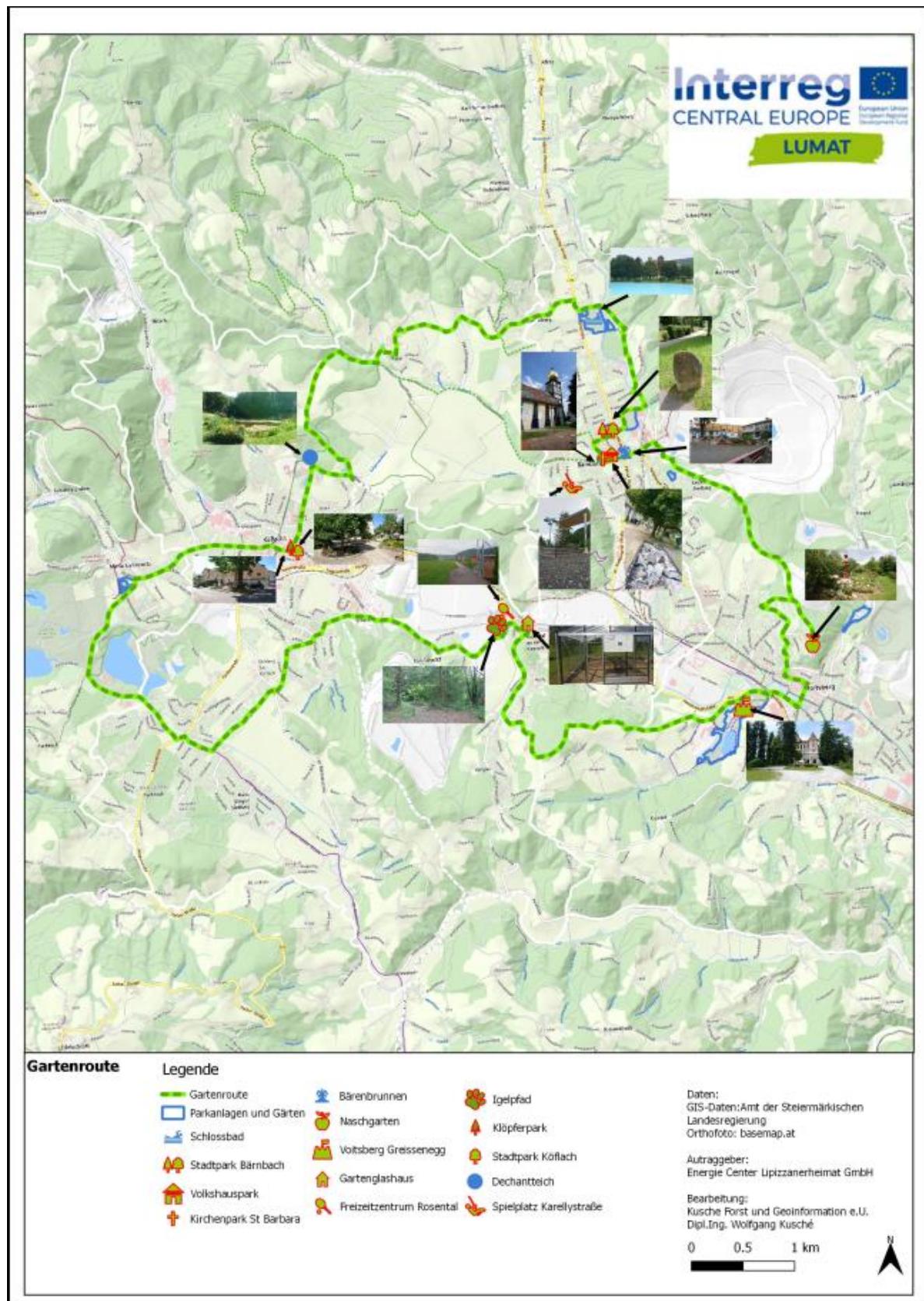


Figure 3.23: Map “Garden route”



### 3.7. Financial model

In the region Lipizzanerheimat there are more than 700ha of mining reclamation areas in various locations with different dedications. A financial model is to be developed for the potential industrial areas in the core area, where young companies are offered the opportunity to obtain space in a cost-effective manner without making large capital investments. This involves the development of a venture capital-like fund that should be set up by the communities and possibly also by the property owners. This fund acquires the land and makes it available to the founders.

The name of the fund: "Areal Management Lipizzanerheimat" short AML.

The companies are granted a building permit. The construction law interest rate is very low in the first years and then rises later. The payment is made first free of installments later with a share of the profit, so that with good course a disproportionate return flow takes place. These surpluses should then also cover possible defaults and administrative tasks of the Fund. In general, the land remains the property of the Fund until the full repayment has been made. In the case of an operational dissolution, the property, including any buildings, is available to the Fund and thus to other new founders.

#### Motivation

The aim is to locate companies in the Lipizzanerheimat region. These companies pay taxes and duties.

These companies employ employees. The employees go shopping, visit restaurants, rent apartments, build houses, go to the doctor, etc. And they usually do that in the vicinity of their workplace.

The companies hire subcontractors, buy goods, services and other products. They build or lease commercial space, commercial space and production halls. And at the same time, they often use the businesses of their surroundings.

Currently, the majority of the working population is from the region. These people should stay here. It must remain the value added in the region. To do this, the population must be offered work and infrastructure.

#### Advantages

The young entrepreneurs have with the AML a central contact for their location search. In advance, the AML has already listed the potential properties of the region and concluded preliminary agreements with the owners. The interested companies will be shown all possibilities.

The AML also supports the authorities and trade procedures. The AML has financing partners on agreed terms.

For the entrepreneur, there is already a structured investment model based on a building lease for the land. The need for capital is lower at the beginning of the business start-up, since the land does not have to be financed. In the early years, the building lease interest is extremely low.

The owners of the plots do not need to put any sales actions. The contract design or the contract conditions are already agreed in advance.

The municipalities and banks are benefiting from increasing revenues and the overall positive development of the region.



### The construction of the Areal Management Lipizzanerheimat - AML

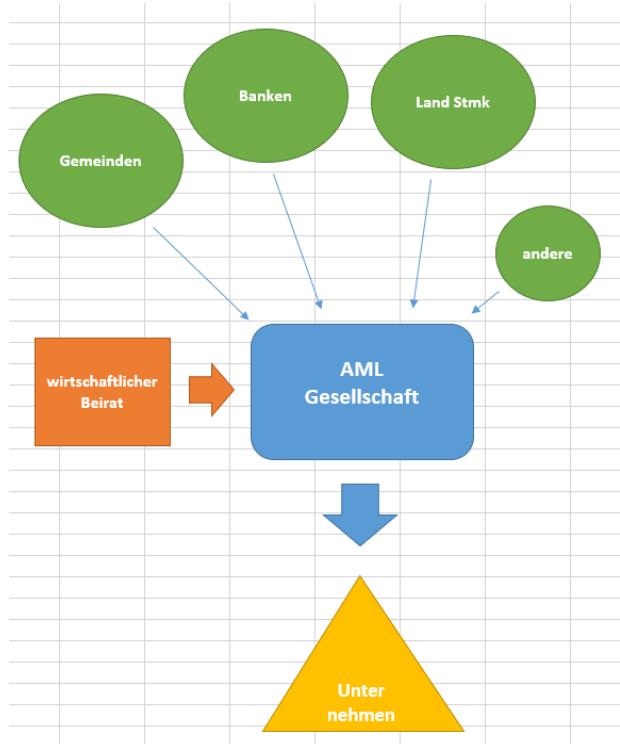


Figure 3.24: Construction AML

#### Execution of a concrete project

The AML concludes option contracts with the potential property owners in advance. Due to the high demand by the AML it is possible to achieve low cost prices for potential properties.

Whether an entrepreneur is supported, decides the economic advisory board of the AML. These are economically experienced people of the region, who are sent to this function. The decision is made on the basis of structured application documents.

If a young entrepreneur is included in the program and finds a suitable property, AML acquires the property.

One third of the funding will be provided with own funds and two thirds with borrowed funds.

Through seizures by the local communities and the shareholders of AML favourable conditions are agreed with the banks.

The repatriation of the funds is final, AML has a maximum of 15 years to repay. The interest is constantly paid by AML.

The founder gets the building right with the following conditions:

Option to buy the property - indefinitely - at the market value agreed and higher than the cost price

The market value of the property is usually 15% above the cost price of AML.

The entrepreneur builds his company building on the property.



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For the use of the property and for the granting of a building lease, the entrepreneur pays almost a rent - the building lease interest.

The building lease interest is profit-dependent:

- Year 1 and 2 - fixed interest at 0.5% of market value
- Year 3 and 4 - minimum interest rate 1% - max 7%
- Year 5 to 8 - minimum interest 2% - max 7%
- Year 9 to 12 - minimum interest 3% - max 7%
- Year 13 to 16 - minimum interest 5% - max 7%
- Year 17 to end - minimum interest 7% - max 10%

#### Project with numbers

An entrepreneur needs a plot of 2,000 m<sup>2</sup>. This is bought by AML for a price of 70 euros per m<sup>2</sup>. The investment is 140,000 euros. The market value of the property is 80 euros per m<sup>2</sup>. The purchase price is financed by AML with own funds (= 46,667) and with borrowed funds (= 93,333).

The young entrepreneur erects a hall on the ground of 700,000 euros and office space around 240,000 euros. He therefore has his own investment costs of 940,000 euros.

The time series with the minimum building lease interest: It compares the expenditure of the debt financing and the income from the building lease interest. The building lease interest will only be charged to the minimum amount. Debt financing will be repaid in the year 20. The young entrepreneur does not use the option to buy the property. At least the building lease interest of 7% will be charged. After 25 years, a capital of around 48,000 euros was saved from the land lease interest alone.



## 4. Leverage for additional funding

For the garden concepts developed for the cities of Voitsberg and Köflach, as well as for the municipality of Maria Lankowitz, suitable subsidies for the respective implementation were also researched and contacted with the support programs. With the support of the affected municipalities as well as the regional management, it was possible to obtain financing through funding for the concrete implementation of the measures or to submit the applications:

- for Voitsberg/Zangtal it's about € 95.000,- (a accepted LEADER application is adapted)
- the spa garden (Kurpark) in Köflach covers € 197.040,- (LE 2014 - 2020, village renewal)
- the planned park in Maria Lankowitz will probably get € 15.000,- for the planning phase and € 150.000 for the implementation phase (LE 2014 - 2020, village renewal).



## 5. Sustainable Development

During the presentation and discussion of the results of LUMAT with the REV, the project proposals (action plan) for the municipalities could be included in their "program", or the concrete application for the garden concepts / parks (Voitsberg, Köflach, Maria Lankowitz) is already running. The results also influence the preparation of the Leader and Regional Development funding programs for the next funding period.

The greenhouse in Rosental should not only be used as a pilot example for the search for interested people in winter vegetables, but discussions with the schools have also started in order to use this example to introduce LUMAT's approach to youth.

With the implementation of the concepts developed in LUMAT for the three gardens in Voitsberg, Köflach and Maria Lankowitz, a sustainable development is taking place, which in particular will be very well received by the population. When developing the concepts, great emphasis was placed on the positive environmental effects such as the use of local materials, environmentally friendly construction, easy care and the like.

Since the projects were originally created from public participation processes (Agenda 21), the awareness of the existing potential of the areas has already been awakened and sharpened. The participants can value the stock and develop common ideas for urban development. This "we-feeling" is translated into real space by the project and thus creates additional personal identification possibilities in public space, which is available to the citizens anyway. The entire area is designed to be barrier-free and can be used by all age groups.

By upgrading the areas, not only an increase in the quality of life for the resident population is to be expected, but there is also an attractiveness of the site. Through their design, the gardens can meet the diverse demands of a public space. During the planning and construction phases, but especially during the exploitation phase, special emphasis is placed on strengthening regional value added and economic cycles, in which the best bidder principle is already applied in the tendering process. A higher visitor frequency as well as the increase in the length of stay per visitor leads to a higher level of employment.