Analysis of an Exemplary Post-Mining Regeneration – A Potential Implementation in Styria/Austria

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Abstract
This paper is dealing with the implementation of a touristic attraction as a unique selling point (USP) in a Styrian mining region. The aim is to find a way for the realization of the well known showcase Eden Project in Cornwall/UK (successful re-cultivation and touristic after-utilization of a former mining area) in Eisenerz/Austria. Therefore an analysis of the basic regional conditions and steps of implementation is made. As a result it has to be mentioned that it is definitely possible to realize such a project with its uniqueness for the target-region under some modifications according to the different regional circumstances in Cornwall and in Eisenerz. As a positive framework here and there e.g. both the openness for such a visionary idea and the willingness of politicians, a certain amount of enthusiasm of a main investor as well as the good accessibility of such a ‘USP’ has to exist.

Zusammenfassung
Die Analyse einer exemplarischen Bergbaufolge-Regenerierung – Eine mögliche Umsetzung in der Steiermark/Österreich


1. Introduction

The essential rules governing rural development policy for the period 2007 to 2013, as well as the policy measures available to Member States and regions, are set out in the Council Regulation (EC) No. 1698/2005. Under this Regulation, the rural development (Title IV) policy for 2007 to 2013 focuses on three themes (known as ‘thematic axes’) (EUROPEAN UNION 2005, p.14ff):

(1) improving the competitiveness of the agricultural and forestry sector (Axis 1)
(2) improving the environment and the countryside (Axis 2) and
(3) improving the quality of life in rural areas and encouraging diversification of the rural economy (Axis 3), which is the focus of this study.

Therefore the paper deals with the improvement of a rural alpine post-mining region by the implementation of a touristic project in order to generate a so called unique selling point (USP). The aim is to find a way of carrying out a project similar to the unique good practice Eden Project in Cornwall/UK on the Erzberg (= Ore Mountain) in Eisenerz/Austria, taking into account the basic regional conditions. The most important difference between Cornwall and Eisenerz is that mining is still active on parts of the Erzberg.

The knowledge that has been accumulated so far in the field of post-mining regeneration (re-cultivation, post-operative treatment, preparation for after-utilization and realization of different post-mining projects) is quite broad and it has to be mentioned that a lot of research work on Austrian post-mining areas has already been done, also by the Institute of Geography and Regional Science at the University of Graz (e.g. CIDE 1990, 1991; FISCHER 2008; FISCHER AND OSEBİK 2006, 2011; OSEBİK 2005, 2010; PIZZERA 2008; POSCH ET AL. 2005; ZIMMERMANN AND JANŠČITZ 2004; ZIMMERMANN ET AL. 2007). However, connecting a good-practice example (international approach) with the regional conditions in an Austrian/Styrian still operative but partly post-mining site is a new and innovative approach. The topic is furthermore placed in a wider methodological framework, considering systemic approaches, generating expert knowledge and applying scientific research methods such as SWOT and impact analysis and system grid creation. Therefore, a close look is taken at the good-practice example of the Eden Project (JASPER 2010) in Cornwall/UK, in order to show its success and to indicate how a post-mining region can be enriched by a single project. It also represents a commendable implementation process. The authors act on the assumption that a project on the basis of the good-practice example Eden Project can be implemented in Eisenerz, if the combination of several factors in a region, like actors, willingness to change and several economic and social components reinforce one another.

According to the results generated from the analysis of the Eden Project and to the authors personal experiences made in different post-mining regeneration projects (e.g. READY (www.ready.ce.eu), ReSource (www.resource-ce.eu), RETINA (www.retinasee.eu)) and judgements formed during STRANZ’s stay in Cornwall Eden Project’s frameworks are considered to be ideal. This perception makes it more difficult to assume that it is possible to realize a similar USP on Erzberg in Eisenerz.

Furthermore, the paper focuses on the systemic approach of the investigation area, which is followed by the application of an impact analysis. Consequently, the guidelines for a successful project implementation, which are applicable worldwide, are identified and defined by the authors. Afterwards, the emphasis lies on the possibilities to implement a similar project to the Eden Project in Eisenerz. The initial situation lies on the possibilities to implement a similar project to the Eden Project in Eisenerz. The initial situation is described and compared with the characteristics of Cornwall (and the Eden Project). Eisenerz is analysed through an application of a systemic approach; the so-called bridge model was developed in order to display the relevance of previously defined factors for a project implementation in a post-mining area. From that follows the research question if and how it is possible to implement an ecological, social and economically sustainable project on Ore Mountain in Eisenerz, based on the findings of the Eden Project. Which elements of a systemic development process have to be basically installed or strengthened in order to increase the chance for realizing such a vision? Is it realizable at all?
2. A Definition of the Term 'Good-practice'

There is no common definition of what 'good-practice' is. Nevertheless, the term is often used to describe outstanding, innovative and successful creations, solutions or methods in practice. In fact, the solution for a problem that was tested and has turned out to work perfectly for one project can be a guideline for another one.

It is argued in Leibnitz Institute of Ecological and Regional Development (2006, p. 8) that the individual expertise of local and regional key players is of particular importance to guarantee successful post-mining regenerations. Fortunately, government laws are formulated based on rehabilitation and remediation, and thus, in favour of post-mining areas. However, in addition to that, the community should be involved in this process.

The definition of the elements of a good-practice process is another approach, where an adaptation to the local circumstances has top priority. Therefore, the following section will give an overview of possible criteria and factors, which might help to find a way to define and evaluate good-practice projects.

Basically, there are several descriptions of good-practice or successful projects in mining areas. In any case, a good-practice project has to show the positive effects, should be repeatable and sustainable in the long run. Approving or measuring results or exemplifying the success of certain criteria is very difficult. Every mining or post-mining region has its own characteristics and thus different factors need to be considered. Nevertheless, a few authors and organisations have tried to summarise certain assessment methods for good practice.

According to Pearman (2009, p. 132f), the key ingredients for a successful regeneration of former mining areas are:

- Local solutions to fit local circumstances
- Leadership, visions and commitment
- Creative partnerships for funding, development and implementation
- Collaboration with different persons, thus developing shared interest
- Involvement of the community and consultation at all stages, thus developing shared responsibility and ownership
- Uniqueness, spectacle, good design.

Additional to the before mentioned factors, specific criteria that highly depend on the individual location are to be named:

- Hybrid projects and multi-purpose sites
- Good location with established transport links
- Sizeable population in this area or a potential for visiting population
- Links with attractions in the same region to strengthen a common branding
- Commitment of the government to fund regeneration.

In one of the most complex renewal projects recently, the International Building Exhibitions IBA Fürst-Pückler-Land, ten principles concerning the reuse of post-mining areas have been set up. These principles were defined on the basis of experience and international exchange (Scholz and Hamm 2010). Sustainable development is the premise of these ten principles, thus the redevelopment of post-mining regions can only be successful when social, economic and ecological matters are balanced. Creating a diverse and multifunctional post-mining landscape as a precondition for new economic activities and new future perspectives for all inhabitants and enterprises in the regions can be seen as being the core statement of these principles.

(1) ‘Setting an example: the development of a post-mining landscape must be exemplary.'
(2) Using resources: the preservation and reuse of typical land, buildings and infrastructure should shape the look of a region.
(3) Fostering identity: development of a location’s new, own characteristics.
(4) Broadening the planning horizon: the planning for times to come has to start when mining is still in operation.
(5) Shaping the process: the process of redesign must be defined specifically.
(6) Allowing creativity and innovation: creativity, an exchange of insider and outsider perspectives and open decision-making structures are necessary.
(7) Creating pictures: it is important to illustrate the process and the change in figures and means of graphic representation.
Ensuring transparency: the development of a post-mining regeneration must be transparent.

Building the organisational structure: the organisational structure has the overall responsibility and thus should be provided with sufficient funding and personnel.

Taking responsibility: supporting entrepreneurial and higher-level public responsibility, more cooperation among local authorities and additional partners is necessary (INTERNALE BAUAUSSTELLUNG (IBA) 2009, p. 4ff).

Effective regeneration requires sophisticated understanding of how the community discovers its new identity and new purpose after the closure of mines, considering the fact that mines may have been an integral part of the cultural heritage for generations (PEARMAN 2009, p. 132ff).

3. The Eden Project

This chapter gives an overview of the Eden Project, its characteristics and important facts, goals and values. Figure 1 shows the location of the Project in Cornwall, a rural and isolated county in the Southwest of England.

The Eden Project is a major tourist attraction, but mainly an educational project. It offers habitats for hundreds of plant species, is a centre for environment and sustainability and, most of all, it is a charity. This spectacular project has attracted over a million visitors every year since its opening in 2001, employed 450 people directly and indirectly and contributed approximately 140 million Euros annually to the local economy. On the whole area all the worldwide different climatic zones are represented and show the visitors their typical vegetation on the 15 hectare outdoor gardens and in two huge conservatories, the so-called biomes (Fig. 2).

The mild maritime climate in Cornwall (nearly frost- and snowless winters) is naturally advantageous for the growth of many different plant species. However, according to PEARMAN (2009, p. 12f), the primary function of the Eden Project remains the environmental education through educational programmes, workshops, exhibitions and events. The project seems to be of high interest as a recreational and touristic research object, but what has mining to do with all that? The answer is that this remarkable project was built not only in a mining region, but is also located in a 160-year-old exhausted china clay (kaoline resp. terra alba) pit. Therefore, it is considered a major post-mining regeneration project.

PETTY and READMAN (2005, p. 8ff) described the situation before the Eden Project as follows: ‘Looking at the location today, the massive extent of the work done in this china clay pit as well as the social and environmental regeneration is visible, also a dispersed rural population, a missing vision of the population’s future, the distant urban centres, several market failures and a lack of civic leadership are characteristic for a post mining situation.’

‘One basic framework is that the summer tourism is very important for the whole region and constitutes 19% of Cornwall’s economy, employ-
ing around 16 % of the workforce. Although tourism has its own social and economic challenges, like seasonal (un-)employment, low-paid jobs or low skills, it did prevent the county from further economic worsening. In the last years, the Eden Project has been instrumental in transforming the economy and future perspectives of Cornwall. It is a symbol of optimism and a possibility to change things’ (Whitbread-Abrutat 2006, p. 1).

3.1. Factors for Success

Knowing about the factors for success in good-practice examples is very important. In fact this knowledge is not enough, also the frameworks have to be taken into account in order to make such factors transferable to similar projects. In the case of the Eden Project Whitbread-Abrutat (2006, p. 1) lists following important factors for success:

- The Eden Project could not have been realized without the significant support by the local community, the county and neighbouring owners.
- It also could not have been realized without the existence of an enthusiastic and consequent local leading figure. Generally it is very important that such a leading figure is a local one (‘one of us’). According to the principle of an endogenous regional project development and the feeling for identity and community the leading figure Tim Smit from Cornwall stood for the place of a leading actor who was very successful at the end of the development process.

Concerning the success and influences of the Eden Project during the first audit period of five years (2001 to 2006) following statements can not only be deduced from JASPER (2010) but also from personal experiences. At that point of the paper further statements are already made for the case ‘Erzberg’ in Eisenerz (italic):

- Catching the spirit of time – the project absolutely embraced everything that was going on around the millennium change, like the ability to change and adapt. For instance, Eden was very ethnic, very rough and ready. As the project has grown through time it has absolutely tried to retain timeliness, contents issues that are going on at the moment, resource resilience or community engagement. The actual spirit of time has to be recognized and stressed out.

- Vision – the simplicity of that vision is why it is so easy to understand. A strategy has to be designed in order to infuse that vision in the minds of leading actors in the region.
- Innovative architecture and proper dimensions – this combination gives the site the precious title ‘USP’ and makes people curious and transforms them to interested visitors (tourists). This effect could also occur on Ore Mountain in Eisenerz.
- Media friendly chief executive officer (CEO) – it is known that successful projects are mostly run by media friendly persons. This phenomenon can be interpreted as a conscious (or in some cases unconscious) marketing strategy but anyhow as a positive marketing effect. Social competence should be a very important basis of decision for a qualified CEO.
- Location of the project planned and the local inhabitants – Local people should get the possibility to identify with the project planned. The principle of participation is a must – in what form ever. In (post-)mining regions or cities this is from experience more difficult and needs special methods.
- Adequate tourist infrastructure – in order to be successful also the surrounding secondary tourist infrastructure has to be in high qualitative condition (different kinds of restaurants and accommodation related to the types of visitors and their budgets, shops and so on). In regard to this point Eisenerz has many tasks to fulfil. A positive development can be recognized when a private investor attracts the former miner’s settlement Münichtal for family tourism. Families would be the perfect customers for a kind of Eden Project on Ore Mountain.
- The project team – a very unusual mix of people was working together in the Eden Project team (e.g. scientists were working together with artists, marketing professionals formed working groups with journalists, economists co-operated with charity workers), but all were working for the same vision. It was called ‘square pegs in round holes’ and it was mostly extraordinary creative, motivating and empowering. Why not trying the same in Eisenerz?
- Speeding up the process under the motto: ‘Fast to market’ and ‘thinking not spending’. – The ability
to start and to get on with marketing immediately and the power of embracing the media. There is a huge amount of visitors visiting the biomes and the gardens of Eden and a tiny marketing budget – that is achieved by being very creative.

The factors for success of the Eden Project were further promoted by creating policies, following special ethics which implement:

- Offering high quality
- Local sourcing of supplies
- Local sourcing of services
- Employment of local people wherever and whenever possible
- Access for people of all physical and learning abilities
- Being media friendly – engaging with the broadcast and print media at all levels
- Development of supply chain
- Local and regional, strategic and sustainable development initiatives

Positive lessons to be learned, identified by the Eden Project team and listed as recommendations by Whitbread-Abrutat (2006, p. 13ff):

1. ‘Include the ‘unusual persons’ to develop novel approaches
2. Develop local solutions according to local circumstances
3. Employ a proven and charismatic leader
4. Engage with the local community from the start
5. Monitor key environmental, social and economic indicators from the start to determine the impact of the regeneration project at a later stage
6. Develop a vision that excites
7. Do not compromise on quality
8. Pursue constructive local employment and sourcing policies to maximise the beneficial footprint of the project
9. Nurture a positive institutional ‘can do’ attitude
10. Base partnership approaches on building trust and intellectual trade to develop synergy
11. Make education fun and engage visitors emotionally
12. Involve artists, scientists and so on from the start rather than retrofitting their work to the project later on
13. Be an informed client
14. Explore how, by changing the rules of engagement, you can elicit positive responses from those whose approach is traditionally cautious and risk-averse’.

To sum up, factors that are representing the so-called good-practice example Eden Project are listed in following bullet points:

- It has the character of uniqueness, innovation and groundbreaking ideas.
- Furthermore it has the efficiency in terms of social, economic and financial issues.
- It considers challenges like location, financial and human resources and administrative frameworks.
- It has an interdisciplinary team of experts with one strong leading figure. The team cooperates intensively and follows a common vision, while involving the local community at all stages in the sense of a bottom-up participation process.
- It shows aspects of sustainability which play a crucial role within the whole planning process; thus locally adapted solutions which fit the local circumstances and consider environmental protection, the economy, the living conditions and the enhancement of human resources are elaborated.

4. The Community of Eisenerz – The Investigation Area

The community of Eisenerz is of particular interest as it suffered severely from the general decline of mining. It is member of the Styrian Iron Road, is one of 19 LEADER regions of the province Styria and part of the tourist organisation ‘Adventure Erzberg’ (Abenteuer Eisenerz). Eisenerz is situated in the alpine region of Styria (Fig. 3) and has a very central position in Austria. But because of an insufficient transport infrastructure it is hard to reach Eisenerz. The existing railway is not operating and the accessibility from the South is hindered by a mountain pass (especially during the winter time – a tunnel could be the solution).
4.1. Demographic Data of the Community of Eisenerz

Due to the reduction of mining and rationalization measures during the last decades the development of population became negative; the population continuously decreased from the 1950s (Fig. 4) to 2011 (4,948 on January 1st) and is predicted to decline to an even lower level in the next years. Further reasons for loosing nearly 50 % of the population since 1951 can be found in the disadvantageous location and accessibility of the region as well as in the bad prospects on the labour market, which cause negative migration and birth rates (ZIMMERMANN AND JANSCHITZ 2004, p. 31).

Compared to the national average (16.8 %), the percentage of under 15-year-old persons is low (10.2 %). The age group of people which are older than 65 years shows a remarkable increase over the last years. Nowadays Eisenerz is facing all problems which occur according to an ageing population. On the other hand this has also a positive effect since the demand on nursing homes taking care of aged people will increase; this might create job opportunities also for the younger population (ORTNER 2009, p. 49f).

4.2. Labour Market Data of the Community of Eisenerz

The community of Eisenerz and its surroundings show the typical economic structures of a declining industrial region. In comparison to the national average, Eisenerz suffers from a high unemployment rate, which reached a peak in 1991 (Fig. 5). In general, the population in Eisenerz is overaged, and well-educated people leave the peripheral city and move to Leoben, Bruck or Graz. Due to this high unemployment rate in the mining sector and to the lack of alternative job prospects there are also social problems (ZIM-
Mer mann and Janschitz (2004, p. 31). Reasons for a decreased unemployment rate are, for instance, a high percentage of retired people, temporarily unemployed people in training or re-training, offered by the ‘Arbeitsmarktservice’, an Austrian agency supporting unemployed people, and a high emigration rate, which suggests that less people need a job in the region.

5. **Comparison of Selected Factors Between Eden and Eisenerz**

Table 1 particularly compares basic data of the two sites and their surroundings (on a regional scale). This comparison seeks to identify the basic conditions in Cornwall which would also apply to Eisenerz. The following factors are not sufficiently quantified, but rather discussed. A detailed feasibility study should clear up all these questions.

<table>
<thead>
<tr>
<th>Cornwall/Eden Project</th>
<th>Eisenerz/Ore Mountain</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Climate</strong></td>
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<tr>
<td>According to Met Office (2010), Cornwall has a temperate oceanic climate. Frost and snow are very rare. Extreme temperatures in Cornwall are rare, but extreme weather conditions, such as storms, are common. The annual precipitation in Cornwall is between 1,000 and 1,200 millimetres.</td>
<td>According to LUIS STEIERMARK (2010) Eisenerz has a rough mountain climate, characterized by a short and cool, rainy summer and a long winter period with low temperatures. Frost occurs on 123 days a year. In average an annual precipitation of app. 1,300 – 1,500 millimetres is recorded, depending on the elevation.</td>
</tr>
<tr>
<td><strong>Accessibility</strong></td>
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<tr>
<td>Although Cornwall is a peripheral region far away from bigger cities, it is easily accessible through motorways, train and bus lines.</td>
<td>Poor accessibility of the region, especially of the municipality of Eisenerz. Only two roads as transport connections with higher capacity and even these two roads are closed very often or difficult to pass because of snow.</td>
</tr>
<tr>
<td><strong>Touristic infrastructure</strong></td>
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<tr>
<td>A mature touristic infrastructure exists due to the touristic potential of the Cornish coastline, thus overnight stays are common and an access to the region is unrestrained.</td>
<td>Poor touristic infrastructure concerning accommodation and gastronomy. The number of overnight stays is low and the main catchment area for one-day visitors is small.</td>
</tr>
<tr>
<td><strong>Demography</strong></td>
<td></td>
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<tr>
<td>Cornwall has a relatively high amount of population growth, but also a relatively high percentage of retired people, with 22.9 % of pension age.</td>
<td>There is a strong decline of population in the municipality of Eisenerz; the population numbers decreased since the 1950s. Moreover, the region has to face an ageing population.</td>
</tr>
<tr>
<td><strong>Labour Situation</strong></td>
<td></td>
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<tr>
<td>Cornwall was always marked by a high unemployment rate caused by its mining history. However, the rate has been declining gradually over the last few years. A possible increase of unemployment during the winter reflects seasonality and thus the importance of tourism.</td>
<td>Eisenerz is a declining industrial region with a reasonably high unemployment rate, reaching its peak in 1991.</td>
</tr>
</tbody>
</table>

Tab. 1: Basic comparison between Cornwall and Eisenerz
The question of touristic infrastructure should be discussed: In contrast to Eisenerz and its surroundings the touristic infrastructure in Cornwall was already well established before the Eden Project was realized. The traffic accessibility is quite poor in both regions, but the land around Eden is more or less flat with no mountain barriers. This is very different to Eisenerz - due to the recent lack of infrastructure and accessibility it will be a must to better this situation on the one hand, on the other hand attractive shops, accommodations and many other tourist offers have to be developed before.

6. Systemic Analysis View of the Investigation Areas

In order to be able to classify the impact of individual system elements the well known methodical systemic approach acc. to VESTER (1970) was chosen: the analyses of impacts and hence a deduced system grid. This first step is focusing on the combination of several factors in both practice examples, like job situation, sustainability, leader figures, touristic infrastructure etc. Table 2 and 3 show 14 selected factors and their grade of impact. The evaluation bases not only on personal experience but much more on many expert interviews. In a second step the most relevant factors for success out of the Eden Project matrix are compared with the evaluated most important factors out of the Eisenerz matrix.

The analysis of the two tables and its comparison affords marked similarities:

- In regard to the impact of the elements on the whole system (active sum) more or less the same factors show the highest values. These factors are the most active (driving) ones.
  - It is the factor ‘mining heritage’ that reaches the highest sum with 17 for Eisenerz and 14 for Eden.
  - It is similar with the factor ‘natural potential’ (16 resp. 13).
  - ‘Leader figure’ follow in both cases with the sum of 14.
  - In Eisenerz also the factor ‘budget’ has a high result with 16.
  - In regard to the impact of the whole system on the elements (passive sum) also more or less the same factors show the highest values. These factors are the most critical ones.
    - It is the factor ‘regional development’ that reaches the absolute highest sum with 21 for Eisenerz and 18 for Eden.
    - It is similar with the factor ‘job situation’ (16 resp. 17).
    - In both cases ‘uniqueness’ has a high passive sum with 14 resp. 13.
    - In Eisenerz also the factor ‘public ownership’ has a high result with 16.

The following interpretation of this result gives valuable incentives for the question of transferability of a kind of Eden Project to Eisenerz (Fig. 6 and 7):

- The components natural potential, leading figure and mining heritage/tradition (like in the Eden Project) as well as touristic infrastructure are driving or active factors. Mining heritage shows the highest active sum in the matrix and thus it is the component with the strongest impact on others. The reason lies in the strong connection to mining and mining tradition felt by the population of Eisenerz and in the fact iron ore is still extracted from the Erzberg. The touristic infrastructure plays a particularly important role in Eisenerz because it is a factor with strong impact on other factors of the system, simply due to its nonexistence. Thus the influence on the job situation and especially on regional development can be described as quite negative.
- Strongly influenced by other components, the reactive factors uniqueness, sustainability and job situation catch someone’s eye. Only the job situation shows similar characteristics as it does in the Eden Project system.
- Uniqueness is strongly influenced by the natural potential of the Erzberg, the latter enabling an outstanding scenery to become part of a possible project in the region. Moreover, uniqueness is also influenced by the leader figures or actors, which can have a hindering or supporting effect on the realisation of a project. The component sustainability depends heavily on the future development of the mining activities on the Erzberg, thus also on the environmental protection and the derived natural potential.
Regional development (like in the Eden Project) and additionally funding/budget and public ownership can be seen as critical components in the system, which exert a strong impact, however, which are at the same time strongly influenced by other factors and thus capable of intervention. They can even cause chain reactions in the system. One of the factors with the highest passive sum in the matrix is public ownership.

Local people are, for instance, strongly influenced by the leading figure and by the job situation, which is particularly crucial in Eisenerz. As already mentioned, the latter component has a strong impact on regional development.

Location, mobility, environmental protection and emigration act as buffering factors. They are worth mentioning since the component emigration plays a more subtle role compared to the Eden Project, where it is clearly reactive. This can be deduced from the fact that mining is still in progress in Eisenerz and the social infrastructure is mature, while the people still hope for mining and industry to provide vacant jobs in the future.

7. The Vision – A Kind of Eden Project on Erzberg

The authors assume that a kind of Eden Project could be implemented in Eisenerz on Ore Mountain. Of course it is only possible if a combination of several factors, like leading and strong actors,
the willingness to change the actual situation and several economic and social components reinforce one another. In a systemic sense the more system elements are positive the more realistic this vision would be.

It has to be considered that Eisenerz and its surroundings have their own characteristics. Nevertheless, a lot of lessons can be learned from the Eden Project, which can be taken into consideration when planning such an innovative project in an Austrian region such as Eisenerz. The stepped form of Erzberg in combination with the architectonical form of biomes or something similar could be an extraordinary landmark in this region.

By analyzing the region Eisenerz from a systemic point of view, hindering and supporting factors including their connections and meaning for the implementation of a successful Eden Project-like project in Eisenerz are known. Hence, the question is how to merge all this findings with the single characteristics and potentials of the region.

According to Posch et al. (2005, p. 53ff), the greatest potential lies, besides resources like wood, water or air, in the region's unspoiled nature and the cultural site with the remarkable Erzberg. The region offers enough space and possibilities for touristic and sportive activities, which makes implementing a new touristic project in the region easy. In order to unite tourism and nature, which constitute the focus of the region's potentials, sports and other events are seen as a possible link.

A great challenge the region has to face is the hindering factor of a lacking touristic infrastructure and accessibility. Hence, the regional infrastructure has to be extended and the transport connections

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Tab. 3: Impact analysis of the Eden Project (Stranz 2010)

<table>
<thead>
<tr>
<th>Component</th>
<th>Job situation</th>
<th>Regional development</th>
<th>Funding/Budget</th>
<th>Sustainability</th>
<th>Natural potential</th>
<th>Emigration</th>
<th>Touristic infrastructure</th>
<th>Location</th>
<th>Mining heritage, tradition</th>
<th>Uniqueness</th>
<th>Mobility</th>
<th>Active Sum</th>
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<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>7</td>
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<td>Regional development</td>
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<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
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<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td>Sustainability</td>
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<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>2</td>
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<td>1</td>
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<td>0</td>
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<tr>
<td>Natural potential</td>
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<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>13</td>
</tr>
<tr>
<td>Leading figure</td>
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<td>2</td>
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<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
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Tab. 3: Impact analysis of the Eden Project (Stranz 2010)
improved. Additionally, the hegemonic structures of possession impede the successful implementation. In the region Eisenerz, great landlords own most of the woodland. They interfere with activities and measures that could be taken, such as developing hiking or cycling tracks (Zimmermann and Janschitz 2004, p. 37).

To put it mildly, the actors including the local population in the region Eisenerz are rather stubborn when it comes to innovation and new possibilities. The people believe that the 'mountain', in other words the mining industry, will represent an income forever. It does not cross their mind that there could also be a value added thanks to the potentials 'beyond the mountain'. The authors' statement refers not only to the lacking development in the region, but also to the evidence from the media, which still highlights the importance of mining for the region. An actual newspaper article in the Kleine Zeitung promotes the Erzberg as the 'Styrian bread loaf', aiming at an increased ore mining by 67.5% (Birnbaum 2010, p. 17).

7.1. Activity Suggestions

But why not realizing something smaller but with a similar high effectiveness for the region like the Eden Project has? Some basic approaches of touristic activities in Eisenerz do exist, which are more or less successful and more or less suitable for the region. Concentrating on tourism by implementing a kind of Eden Project in order to revitalise the region and promote economic development would be a good opportunity for Eisenerz.

Eisenerz needs to work on its development and success. Finding a common agenda and a coherent communication combined with an adequate offer, Eisenerz can for sure become a very interesting tourism destination. Therefore, in Eisenerz it will not be enough to just provide the necessary infrastructure or funding in order to advance development and innovation. If the vision of a planned project is unique and outstanding enough, a lacking infrastructure will not stop tourists from visiting the site.

Now the question arises: what are the prerequisites and requirements for Eisenerz and its project in the region in order to become as successful as the Eden Project in Cornwall? The situation, though, is very complex, therefore the following suggestions are summarised in order to create an opportunity to implement an innovative project into the region:

1. A strong, exciting vision and innovative idea is needed. The project has to be unique, groundbreaking and adapted to the region's characteristics. The design has to be appealing and the project should have an interesting story to tell.

2. An appropriate location with an outstanding and unique surrounding has to be found.

3. The concept has to be promoted and developed by a charismatic and proven leader and a multifunctional team. It is important for the leading figure to ensure that rumours should be avoided, if possible, or otherwise not spiral out of control and that the project is represented in a positive way.
(4) A new regional identity has to be built and the willingness to change has to be strengthened.

(5) Local people have to be integrated from the start, participation is important. Involvement of the community is indispensable. Furthermore, it is important to trust the democratic process within a community.

(6) Synergies, co-operations and networks have to be made use of.

(7) Mining heritage, mining tradition and the existing mining activities on the Erzberg should be turned into an innovative project.

(8) Committed funders who in some way or other are connected to the region have to be found in order to guarantee a safe start with a decent budget.

In order for a project to become successful, the following factors should be considered when establishing a plan for implementation:

(1) Enhance local employment.

(2) Turn attention to sustainability The future usage of local potentials (mining of iron ore on the Erzberg) is to be guaranteed in a sustainable way. Environmental protection is to be provided.

(3) Learn lessons from other successful projects, like good-practice projects in Europe, and never forget the importance of the key factors uniqueness, leading figure and mining heritage.

An implementation of a tourism project combining education and adventure seems to be a perfect solution for the region, which offers a great natural potential as well as the already existing project ‘Abenteuer Erzberg’. Additionally, health and gym could play an important role in the planning phase. In this context, attention is again drawn to the natural potentials, and thus to sports and tourism. The overall aim to be fulfilled is to involve the visitors in such a way that they become emotionally attached with the project. Under these circumstances and with regard to the aforementioned facts, no obstacles hinder the theoretical implementation of a future good-practice example in Eisenerz.

Finally as a result it has to be mentioned, that both a wide openness for such a visionary idea and the political willingness, a strong enthusiasm of a leading actor and a good accessibility are absolutely necessary. A transferability of the Eden Project to Erzberg in the rate of 1:1 is not possible and does not make sense, of course, because of different conditions, but it is possible in a modified form. This study should be understood as a kind of stimulation for further discussions of possible visions on the basis of that methodological verified pre-study for the implementation of an USP in a region with a high natural potential that has to be enhanced.

References

Fischer, W., 2008: Unser Institut als Forschungspartner im Interreg IVB-Projekt „ReSource“. In: GeoGraz, 43, p. 46–47.