

Case study: The European Centre for Renewable Energy EEE in Güssing as an example of how synergies can be realised

The European Centre for Renewable Energy (German abbreviation EEE) is located in Güssing, a town with around 3,700 inhabitants in the province of Burgenland. Burgenland is the most eastern of the Austrian provinces and is still - despite catching up – the province which is economically least developed. Against this backdrop, Burgenland was defined as an objective-1 region in the mid 1990s.

Güssing was at that time facing rather grim economic prospects. Located in Southern Burgenland and close to the Hungarian border, it was “...one of the last corners in Europe” (expert interview), a result of the cold war. Employment possibilities in the region were scarce, and the economic situation of the farmers and agricultural firms dominating the local economy was deteriorating. A large part of the population had to commute to work to other areas, such as Vienna. Güssing was also disadvantaged because of the lack of transportation infrastructure. To date, the town has no railway station and reachability by car was and is improvable. Out-migration was a logical consequence, and with it also a decline in local tax income for the town.

Against this backdrop, the town authorities had to develop a strategy for making Güssing more attractive. As part of the first stock taking exercise, a SWOT analysis for living and working in Güssing was performed. It found that the inhabitants of Güssing had to pay considerable amounts of money for heating, as most of the households used oil-fired systems. At the same time, one of the strengths identified was a large availability of biomass in the region. The idea was hence to develop a local system for the production of district heating (in German “Fernwärme”). Using national funds (communal loans) and ERDF funds, the first prototype and demonstration facilities were established in 1996 in order to convince the population to take part in the initiative. In parallel, the EEE was established. The response from the population was excellent, and in the course of seven stages of expansion (the last in 2006), not only the production facilities were enlarged but also an extensive network of pipes for district heating was set up. An intended and positive outcome was also that local agriculture and forestry firms found new (local) demand for their products.

Encouraged by the success of the approach taken (i.e., developing demonstration/prototype facilities for renewable energy production with subsequent take-up through local households, which then pushes demand for local biomass products and services), Güssing wanted to repeat this success also in other related areas of renewable energy production. A whole series of demonstration and prototype facilities was established for further study, among which was also a power station utilising biomass as a source of energy. The novel process employed is based on the gasification of biomass and allows all waste material to be recycled. Other demonstration facilities concerned biodiesel fuels or biogas. While not all of the facilities were commercially successful, some were. One impact visible was that results from demonstration runs in Güssing were also used for similar facilities operating in neighbouring regions in Burgenland. The co-funding through ERDF funds was and is considered essential for closing funding gaps with respect to development of the prototype and demonstration facility and for initiating further investment.

The facilities, and in particular the biomass electric plant, attracted demand for R&D. Researchers from various organizations asked the town and the EEE about possibilities to use the renewable energy facilities for their projects. Güssing recognized that R&D could not only help the town solve particular technological problems, but also maintain the lead as innovator among regions in using and exploring the possibilities of renewable energy sources. This has helped the settlement of production facilities of foreign firms active in the renewable energy sector, sparked the development of eco-tourism and the demand from other regions for know-how from Güssing (consulting by Güssing on renewable energy development for regions). Güssing now cultivates this ‘habitat’ for renewable energy activities, is actively collaborating with many national and international R&D

organisations, and is also developing and offering training and education in the renewable energy sector. A case in point is training on the new profession of 'Solarteuer' in the solar (photovoltaic) field, a technology field now also tackled by Güssing.

The EEE with its currently 14 employees is instrumental for the particular strategy Güssing is exploiting. The centre is organized as an association and has around 60 members, such as local firms, private persons but also the Federal State of Burgenland. The centre's main aim is to contribute to regional development by developing *"...lasting regional and community-based concepts for energy conservation and for the generation and use of renewable energy"* (EEE Homepage, English section, as of Oct 22 2010). Against this backdrop, EEE manages the demonstration facilities (administration, access control, accounting) as a service to its users. It is also involved to a small extent in R&D projects. The participation in R&D projects is, however, for the most part limited to a management function. Actual research is carried out by dedicated research partners such as the Technical University of Vienna or the Technical University of Graz. Respective labs and offices have been established at the biomass plant and in newly established office buildings. It is also noteworthy that Güssing hosts a branch of the research centre 'BioEnergy 2020+', a centre funded by the national COMET programme and headquartered in Graz.

The EEE does not have any 'base' institutional funding. It attempts to finance 30 % to 40 % of its financing needs by drawing on several funding channels. These include at the national level FFG's Structural Programmes (COMET – Energy 2020+ as stated before, protecnet, COIN) and FFG's General Programmes. At the international level, Structural Funds are particularly drawn upon (LEADER and LEADER+). Programmes used comprise former INTERREG, the Central Europe programme, and the South Eastern Europe (SEE) programme. EEE has also been involved in the Framework Programmes, namely in 'traditional' cooperation projects, and in the EU's Lifelong Learning programme.

Questioned on how the EEE selects among the various schemes, EEE officials answered that the main selection criterion was *"...that drawing on a particular programme should make sense from our strategic point of view"*. Against this backdrop, the concept of 'synergies' between different funding programmes – in particular between FP7 and ERDF funds - would be hard to define because, eventually, *"...all that's possible and feasible in terms of combining funding schemes is being pursued by us in practice"*. The impacts of using the various R&D, and especially the EU, funds are hard to quantify and to assign to particular projects. However, Güssing officials feel that without the European programmes, *"...a large part of what Güssing constitutes today would not exist"*. In particular, Güssing is rather skeptical that without European programmes it would have been possible to engage in transnational collaboration, to learn and get to know distinctive partners or obtain access and learn about certain technologies to the realized extent. These aspects can be hence considered to be the main areas of impact of European RTDI programmes (with the said role of the ERDF in particular being important for setting up prototype and demonstration facilities). The interviewed experts also underlined that Güssing's development is only in parts due to Güssing being located in a former objective-1 region: *"There are plenty of funding opportunities out there, and it is because people do not know about them – and do not attempt to take the administrative hurdles if they happen to be aware of opportunities – that many possibilities are foregone"*. A dedicated success factor for R&D funding schemes identified is the possibility to have the EEE (or better: the region) define many of the activities bottom-up and have as much decision power in the region to pursue its strategy accordingly.