## ABSTRACT

Areas with potential: Industrial areas in South Tyrol

Usable areas for housing, transport infrastructure, or commercial activities are a scarce resource in South Tyrol. The limited availability inevitably leads to competition between the various usage possibilities regulated by the new Spatial Planning Law (Provincial Law No. 9 of 10.07.2018). Against this background, the present study aims to take a closer look at the current structure and characteristics of South Tyrol's industrial areas. Further objectives of the study are to provide an outlook on the area requirements of industrial land for 2030 and to analyse the guality of the existing industrial areas based on various quality criteria (e.g. accessibility, technical infrastructure). The results of the study are primarily intended to serve as an information basis and planning instrument for decision-makers in the municipalities and the province. Thanks to the geo-referencing of the database of the Register of Companies of the Chamber of Commerce of Bolzano and the linking of several databases, the present study is the first to provide a comprehensive picture of South Tyrol's industrial areas, including the companies and employees working there.

South Tyrol has 1,907 ha of industrial land, which is divided into 777 industrial areas. With 114 out of 116 municipalities, almost all of them have at least one industrial area. With the industrial area of Bolzano-South (251.1 ha), Bolzano has the largest industrial area in South Tyrol and, in total, the largest industrial land (283.1 ha) of all municipalities, followed by Merano (87.0 ha) and Brunico (72.8 ha). In relation to the number of inhabitants, Campo di Trens has the highest density of industrial land with 14.0 ha per 1,000 inhabitants, ahead of Glorenza (10.6 ha), and Cortaccia (10.4 ha).

The size of South Tyrol's industrial areas ranges from very small areas of only a few 100  $m^2$  to large industrial areas of several

hectares. While the latter are concentrated in larger municipalities and close to the main transport axes, small areas are spread all over the province and are also located in peripheral valleys. 37 industrial areas (4.8 %) are larger than 10 ha and represent about half of the total industrial land in South Tyrol. Not less than 367 industrial areas, i.e. almost half of all industrial areas, are smaller than 0.5 ha. However, they account for only 3.7 % of the total industrial land of South Tyrol.

Overall, there are about 7,265 businesses (40.6 % of which belong to the craft sector) with 74,355 employees in South Tyrol's industrial areas. Every third employee (37.4 %) of South Tyrol's private sector (except agriculture) works in an industrial area. This proportion is significantly higher in the manufacturing, construction, wholesale and trade/repair of motor vehicles sectors. The sectors represented in industrial areas differ significantly in terms of land use (industrial land per employee) and land productivity (valueadded per industrial land): the manufacturing sector achieves the highest land productivity of all sectors, the service sector the lowest land use.

Larger industrial areas (with 10 ha and more) perform significantly better in many aspects than medium-sized and small areas. On the one hand, they are significantly more land-productive and less land-intensive than smaller areas. On the other hand, they have an improved geographical access (roads, public transport), wider availability of broadband, and a larger catchment area. Finally, large industrial areas contain only 1.3 company apartments per hectare of industrial land, while micro areas with less than 0.5 ha have about three times as many apartments (4) per hectare.

Over the past 10 years, the amount of industrial land in South Tyrol has increased from 1,823 ha in 2010 to currently 1,907 ha (+4.6 %). Two scenarios, based on the population forecast for 2030 and two different assumptions regarding the future economic structure, result in a slight decrease in the area requirements of industrial land of 1.5% (assuming the economic structure remains unchanged) and a slightly more pronounced decrease of 6.3% (extrapolating past developments of the economic structure).

The following recommendations for the planning of industrial areas are derived from the results of the study:

- > Considering the supra-municipal importance of industrial areas: The significance of an industrial area goes far beyond the respective municipal boundaries. For this reason, it is necessary to arrange the planning and further development of industrial areas towards functional areas. In the case of small and medium-sized industrial areas, these can be the 25 optimum catchment areas defined at province level for intermunicipal cooperation. For large industrial areas, on the other hand, spatial planning should be conducted at least at the district level, if not at the province level.
- Increasing the flexibility of unused existing areas and conducting active land management: Before considering the designation of industrial lands, the top priority should be to make optimum use of existing, under-utilised areas. Here the public authorities at the province level are called upon to support the further development and revitalisation of industrial land. By setting up a risk capital fund, for example, unused land could be purchased, improved, and made available to

companies in need of land. Extensions of existing industrial areas, and in particular the designation of new industrial areas, should only be considered at a second stage.

- > Upgrading large industrial areas: The results of the study clearly show that upgrading large industrial areas makes sense for economic, social, and spatial planning reasons. Many large industrial areas in South Tyrol have developed only insignificantly since their formation, but the demands of a modern industrial area have increased steadily. For the future development of larger industrial areas, a clear vision and a goal-oriented plan are therefore needed. The municipalities must play an active role in the future and push forward the development of the industrial area together with the companies active in the respective area. Best practice examples from other countries can serve as a model for this.
- Rethinking the strategy for small areas: Companies located in micro industrial areas are usually small businesses with few employees. Furthermore, these areas have a very high density of company apartments. As it is often difficult to find a successor for smaller companies in particular, which leads to more frequent company closures, it can be assumed that in the future industrial and commercial activity will be pushed further into the background in many micro-industrial areas. Municipalities should be aware of this tendency when designating micro areas and should consider the future prospects of existing micro-industrial areas at an early stage.