SUMMARY

Survey Renewable Energy Branch in Hamburg and the Metropolitan Region 2012

Initiator: Renewable Energy Hamburg Cluster Agency · **Provider:** Prognos AG

Within just a few years, the Hamburg metropolitan region has developed into an important hub in the renewable energy sector, in particular in the area of wind power. The report describes the present structures and challenges of the renewable energy sector in this region. The results are based on surveys (written surveys of companies, interviews with experts) carried out in the course of the project and held with companies belonging to the Renewable Energy Hamburg Cluster, as well as with companies not being members of the cluster from the wider metropolitan region. Analysis of trends also forms a basis for the results. In addition, a company and research database was set up during the project.

Within the scope of the study, **1,466 companies** who are active in the field of renewable energy were identified in the Hamburg metropolitan region, more than half (53.3%) of them have their headquarters in Hamburg. The region has a diverse corporate landscape, ranging from manufacturers of components and equipment (production) to operators (project planning, installation and maintenance), corporate service providers (consulting, certification, financing, insurance and logistics) right up to companies in the area of energy supply and trading. The corporate landscape is distinguished in particular by its **very strong focus on services**. In most cases, the large equipment manufacturers are also present in the region through their service functions such as distribution, marketing, administration and R&D, which are managed from their headquarters. With the exception of a small number of towns and districts in the region (Cuxhaven and Lübeck, e.g.), manufacturing itself plays a relatively minor role.

As a **central submarket** in the field of renewable energy, **wind power** is the dominant force in the metropolitan region, where important manufacturers of wind turbines are headquartered. The region is also a hub for engineering service providers and developers of wind farms and wind power projects. In addition, the Hamburg metropolitan region has at its disposal expertise in the **photovoltaics** and **bioenergy** submarkets.

The renewable energy sector is developing very dynamically. Between 2008 and 2011, adjusted **employment growth** in this sector was **around 56%**. With approximately **24,700 employees**, about 1.4% of the total **workforce** in the Hamburg region works in renewable energies. Of the total, 14,500 personnel (59% of the region) are employed in Hamburg itself, compared to 10,200 in the wider metropolitan area. Sustained growth continues to be anticipated, with companies in the renewable energy sector forecasting an increase in employment of **around 40% by 2015**. The most significant growth is expected to be in the manufacturing of components and equipment as well as in the areas of project planning, installation and maintenance. Revenue development is also seeing a dynamic upwards trend. Between 2008 and 2011, adjusted sales growth in the renewable energy sector was **around 51%**. In the upcoming years, companies are also expecting significant increases in sales. For the period from **2011 to 2015**, the companies surveyed anticipate adjusted revenue growth of **almost 78%**. These figures indicate that the renewable energy sector will be an important driver of growth in the Hamburg metropolitan region over the coming years.

With a variety of colleges and universities in both Hamburg itself and in the surrounding area, the Hamburg metropolitan region's research landscape is well positioned. There are also private research institutes such as CFK-Valley in Stade, the Helmholtz-Zentrum in Geesthacht and the Fraunhofer Institute in Itzehoe. **Wind power** and **bioenergy** comprise the primary **focus of research**, which is also distinguished by work in the areas of fuel cells and hydrogen technologies. The field of **systems solutions** is where companies primarily see a need for research, but further work is also required concerning service and logistics concepts, smart grids and materials development. At the same time, **storage technology** and **grid integration** are emerging as further areas where an urgent need for research exists.

Despite the positive overall assessment of the renewable energy sector in the Hamburg region, the companies also mentioned aspects that have rather more obstructive effects on the sector and corporate development. These include adjustments at too short notice in the **legal and political environment** creating uncertainty as well as a lack of support from **subsidies policy** as perceived by the companies. Further obstacles to development arise from covering the need for skilled workers and from insufficient financing options and guarantees.

Opportunities and potential for development in the renewable energy sector in the Hamburg region are seen primarily in the expansion of the research landscape. In this respect it is often regarded as necessary for the political decision-makers to create a distinct research profile and to market it correspondingly. Closely related to this is also the boosting of Hamburg's profile as a centre for renewable energy in northern Germany within the scope of an active marketing strategy. The foundation for this is a functioning network. Strengthening the **network expansion** and the exchange of information, as well as **lobbying** at a political level are seen as core tasks for this young cluster.

For the Renewable Energy Hamburg Cluster Agency, which only began their operational work at the beginning of 2011, the analyses provide the basis for **recommended courses of action** which correspond to the expectations and wishes of the companies involved. **Investments** in technology and R&D are the principle requirement for reaching a sustainable expansion and stronger profile of the branch and the cluster. The increased orientation of **further education and training, qualification as well as science and research** towards renewable energy themes is a key topic here. This does not just concern technical disciplines, but also economic, legal, insurance and management issues. Promoting application-oriented research in the fields of **grid integration and storage**, which are essential for the future supply of energy from renewable resources, is to be mentioned here first and **foremost. Additionally, a more aggressive approach to bioenergy is recommended, which may also** lead to a greater response and integration in the rural districts of the metropolitan area. Furthermore, it is necessary to press on with **network expansion and maintenance as well as the exchange of information**, which are fundamental themes of cluster management. This concerns both the effect within the region as well as cooperation in northern Germany and international networking with, to put it on a global scale, our closest neighbours in the Oresund region, for example.

More intensive **communication and cooperation** is crucial for making use of the existing resources and for networking with the key players in the sector. An exchange of information can be ensured by offering a diverse events and contacts in the future. Cluster management can distinguish itself **as a linchpin for the renewable energy sector** in the Hamburg metropolitan region particularly when it comes to overcoming bureaucratic, legal and political hurdles. To this end, the significance of renewable energy must be continually communicated. In order to **market Hamburg on an international level**, as a German hub for wind power and as a centre of attraction for skilled workers for example, professional location marketing is acutely important. The short-term goal here is primarily an increase in the Hamburg metropolitan region's profile as an international trade fair location for renewable energy.

In order to improve the general conditions of the sector in Hamburg and its metropolitan region, the Renewable Energy Hamburg Cluster faces many challenges and a broad scope for implementation in these areas. Cluster management can take up these challenges and ideas very well in the further course of its work and has already set the initial benchmarks in many of the aforementioned areas.

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