

the current approach to transfers of functions is useful in this regard – it could prompt immediate transfers of R&D activities to countries with low taxation. For this reason, reduction of the relevant tax rates in Germany should be considered, as a last resort.

A7 ELECTROMOBILITY

Germany is slowly catching up

To a large extent, the future of Germany's automobile sector will be decided in the electromobility market.¹⁰² "Auto-nation" Germany thus needs to reorient its automotive sector strategically, and energetically, with a view to achieving leadership in the area of ecologically and economically optimised transport systems.¹⁰³

In its last report, the Expert Commission was sceptical about the outlook for efforts of state and private actors in the area of electromobility. Now, there are signs that Germany has caught up somewhat over the past year. In particular, new energy has emerged in the relevant research sector. At numerous universities and non-university research institutions, future-oriented projects have been launched, and research activities in the area of electromobility have been expanded.¹⁰⁴ In addition, companies have been intensifying their efforts as well.¹⁰⁵

In order to continue supporting this dynamic development, the Federal Government has assured follow-up financing, throughout the medium term, for the EUR 500 million in support provided in the framework of the 2nd economic-stimulus package (*Konjunkturpaket II*) through mid-2011. The funding is especially important with regard to development of high-performance batteries. Via development of battery technologies that move beyond conventional lithium-ion technology, Germany has a chance to regain ground internationally.

A change of strategy: from lead market to lead provider

In contrast to announcements made in 2009, in connection with the adoption of the National Electro-

mobility Development Plan, plans no longer call for developing Germany into a lead market for electromobility. Instead, the Federal Government's support policy is being oriented to making Germany a lead provider of commercially successful electromobility systems.¹⁰⁶ The difference between the two approaches is as follows: as a lead provider, Germany will no longer place top priority on becoming the first country with an especially large percentage of electric vehicles. As a lead provider, Germany must concentrate on supplying the world market with suitable vehicles and vehicle components, and on keeping a major share of the relevant research and added value in Germany.

The Expert Commission welcomes this change of approach, since it fits better with Germany's existing market and research structures than would an attempt to create a lead market. Relevant work-sharing between the Federal Government's various departments has improved, and this must also be positively assessed. The relevant management is now being shared by the Federal Ministry of Economics and Technology (BMWi) and the Federal Ministry of Transport, Building and Urban Affairs (BMVBS). The pertinent technology emphases are being co-ordinated by the BMWi and the BMBF. In the area of battery technology, which is central for electromobility, the two last-mentioned ministries have not yet clearly defined their various responsibilities, however. The Federal Government's joint office for electromobility (*Gemeinsame Geschäftsstelle Elektromobilität*; GGEMO), which was founded in February 2010, has not been able to alleviate that problem to date. The GGEMO has been set up within the BMWi to support the Federal Government in this area and to implement the National Electromobility Development Plan. It is to be hoped that that office will soon acquire a true control function.¹⁰⁷

Promote vertical co-operation, and combine existing capacities

To become a lead provider, Germany needs to ensure that relevant responsibilities at the political level are efficiently combined and concentrated. At the same time, German industry needs to concentrate its own resources so that it can implement projects more quickly. Ideally, German automakers would co-operate closely in this regard. Experience over the past

years has shown, however, that horizontal co-operation between German automakers, oriented strongly to German jobs and industrial activities, cannot really be achieved. Such companies continue to carry out the bulk of their electromobility research by themselves, in order to prevent any loss of technological know-how to competitors.¹⁰⁸

The Expert Commission thus recommends that state support programmes be focussed less on horizontal co-operation between automakers. Instead, vertical co-operation should be efficiently supported, i.e. co-operation between automakers, suppliers, component manufacturers and mechanical engineering companies, and the focus on engineering companies should be related directly to production technologies. Such vertical co-operation, throughout the entire value-creation chain, is not something to be taken for granted, since some automotive suppliers and manufacturers are already competing with each other via their own internal development activities in the electromobility sector. If absolutely necessary, therefore, strategic vertical co-operation should be promoted even without the participation of some of the aforementioned industrial sectors.

Review the value of current model tests

Successful support policies always focus on concentrating existing capacities. Consequently, the Expert Commission continues to doubt whether many of the model tests distributed throughout the country are providing any real benefits, either economically or in terms of funding policy. It is largely unclear what such small-scale tests could teach us about Germany's competitiveness in the international electromobility market, especially since most such tests involve trials of established technologies. Ultimately, such tests can be detrimental to efforts to develop Germany into a lead provider for electromobility, since they tie up resources that are urgently needed for promotion of innovation in areas such as power electronics and battery technology. The useful alternative to the many small projects would consist of a few large, (ideally) trans-boundary model tests in densely populated European regions. In co-operation with one or two other European countries with automaking traditions, infrastructures and incentives systems for introducing electric vehicles

to the market on a realistic scale could be tested in such model regions.¹⁰⁹

The time available until German electric cars appear on the market, a development expected for 2013, should be used for preparation of additional incentives systems. For example, the public sector should generate reliable demand via its own procurement policies. The policy-making and administrative sectors could set a good example by making large-scale transitions, in their fleets of official vehicles, to vehicles with electric drive.

Another promising way of increasing demand for such vehicles would be to provide tax incentives especially for purchases of electric and hybrid vehicles for official use. The current tax framework tends to provide disincentives for new types of drive technologies.¹¹⁰