

## Visit to Ford Dagenham Diesel Centre

on Tuesday 1<sup>st</sup> February, 2005

**Chair:**                   **The Rt Hon the Lord Jenkin of Roding**  
Chairman, The Foundation for Science and Technology

**Speakers:**           **Roger Putnam**  
Chairman, Ford  
**Jacqui Smith MP**  
Minister for Manufacturing, Department of Trade and Industry  
**Ian Porter**  
Manager, Dagenham Diesel Business Office, Ford

MR. PORTER gave a brief summary of the history of the Dagenham complex, leading up to the latest development, the £169m investment in the extension of the centre. The new windfarm and the Centre for Manufacturing Excellence (CEME) Ford's determination to develop skills and help the environment. 5,000 workers were now employed on the site. There was rapid growth in the percentage of cars fuelled by diesel, rising to over 50% by 2006 due to better performance, low CO<sub>2</sub> emissions and better fuel consumption. But key technical challenges remained – coping with increasing vehicle weight, and demands for even lower fuel consumption and emissions. In reply to questions, he acknowledged the importance of working with suppliers, but noted that many suppliers were part of multinational companies, so that not all the R&D they did was UK based. Ford could secure the skilled engineers it needed, and some then left to join suppliers, but he could not be confident that suppliers had all the engineering resources in the UK that they might wish.

The party then toured the diesel assembly plant, accompanied by Ford officials.

MR. PUTNAM said that Ford was the market leader in passenger cars and vans and that one-quarter of Ford engines worldwide were made in UK. Ford undertook 80% of the automotive research in the UK, at a cost of £1bn. Ford saw R&D as vital for its success in both design and

manufacture. The problem, in a country with a long established research and manufacturing tradition, such as the UK, lay in changing embedded cultures. He welcomed the Government's Manufacturing Strategy and the recent review. Innovation was key to reducing the productivity gap, but the automotive industry was a leader in reducing costs. CO<sub>2</sub> reducing technology was crucial, but there were trade offs with other priorities, such as particulate reduction, which meant increasing the weight of cars – aerodynamics might suffer. He stressed Ford's determination to increase skills of staffing both the company and its dealers – there were now two campuses, as well as CEME and a substantial schools liaison programme. Regulation overkill was a real worry – he estimated that the average European car would have to bear a cost of £2,500 from regulation. But he appreciated the governments concern to ensure that regulatory action was critically examined; he hoped the EU shared this view. He supported the CAR 21 project.

MS. JACQUI SMITH said that Ford was a splendid example of a company which had embraced change and development. Dagenham was a good example of how to seize opportunities for new projects and she was glad that the Government had been able to help in funding the new plant. Challenges of the future were not only globalization, where developing countries had both lower cost production and high quality

skills, but also increasingly sophisticated and demanding consumer pressure, which meant that design, manufacture and servicing had to be integrated. Above all there was increasing environmental concerns, leading to higher standards and expectations.

She welcomed Mr. Putnam's support for the Manufacturing Strategy and its review. The government would continue to support manufacturing through sound macroeconomic policy, and devoting resources to science, innovation and knowledge transfer in key technologies. Identifying and disseminating best practice was vital, and the Manufacturing Advisory Service could play a key role in this. She hoped the government had identified the challenges manufacturing faced, and had helped to activate the key responses.

A major theme in the ensuing discussion was the challenge imposed by the need to get "closer to the customer" if manufacturing companies were to be successful. Design was a crucial factor; and good design meant a close understanding of consumers' needs and wishes. Did manufacturers put sufficient effort in finding out what the customer wanted? It was, perhaps, not fair to ask such a question in a plant which was concerned with producing only one element – the engine – of the completed product, but it had not come out clearly that Ford devoted the effort that a retailer would give to the task. This was becoming more and more difficult as volume manufacturing failed to meet the numerous discrete and niche markets that consumers now wanted served. This was where, perhaps, the UK had a particular advantage - developing countries had low cost workforces and good R&D, but they could not compete with us in designing to meet particular customer needs. Particular problems, however, lay in the SME sector, which found it difficult to respond quickly to changing tastes, to developing good contacts with universities and finding the resources to cope with demanding regulatory requirements.

The government consider that the best way to help SMEs to meet some of these problems was to work on supporting and developing links between industries and universities, and using the sector skills councils to address weaknesses in skills and training in SMEs, both regionally and sectorally, rather than by attempting to assist individual companies, which would inevitably lead to micromanagement. While there was concern

about the substantial proportion of manufacturing industry, particularly in the supply chain, which was not UK owned, it was suggested that this concern might neglect the advantages offered by countries, such as Germany, which had a culture which emphasized process discipline. We were very strong on conceptual design, and our designers were being used abroad because of their skills, so it made sense for us to use foreign managements in volume industry which demanded process skills. Automotive engineering was halfway between manufacturing and R&D, and would be likely to remain in the UK because of our skill base and customer knowledge, even if R&D and manufacturing went elsewhere.

Inevitably, the concern arose about whether there was an adequate supply of engineers being trained for the future. The declining numbers of those taking A levels in mathematics was mentioned. But the point was strongly put that the priority was getting young people interested in going into industry. The UK culture still put industrial work and engineering below other opportunities. The government was working hard to improve science and maths teaching in schools, and the schools liaison provided by such companies as Ford was of great value in getting students to see the good employment opportunities there were in industry, but there was still much to do. The Tomlinson Report proposals, which would enable students to continue with a broader curriculum until they were able to make more informed choices about careers, should be looked at in this light.

Sir Geoffrey Chipperfield KCB

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