



EUROPEAN COMMISSION

Brussels, 17.08.2000

SG(2000) D/ 106291

Subject: State aid No N 480/2000 - UNITED KINGDOM
Motorola Limited, Dumferline, Scotland

Sir,

PROCEDURE

On 26 July 2000 the UK notified, under the Multisectoral Framework on Regional Aid for Large Investment Projects Projects¹ ("Multisectoral Framework"), their intention to grant investment aid in favour of the Motorola Limited ("Motorola") for the construction of a new plant for the production of a semiconductor for cellular telephones and other wireless applications.

DESCRIPTION OF THE AID MEASURES

The beneficiary

Motorola is a 100% subsidiary of Motorola Inc., a global manufacturer of cellular and radio communications products and electronic devices (semiconductors and integrated electronic systems). The total revenues of Motorola Inc. amounted to USD 29 398 million) world-wide in 1998. In the same year, the group had 110 928 employees.

The new plant will be situated in Dumferline, an Article 87(3)(a) area in which the maximum permitted aid intensity for the support of new investments is 20% NGE. As its parent company, Motorola manufactures cellular and radio communications products and electronic devices (semiconductors and integrated electronic systems). In 1998 it achieved a turnover of GBP 3 340 million and employed 10 000.

¹ OJ C 107, 7.4.1998, p. 7.

The Right Hon. Robin COOK, MP
Secretary of State for
Foreign and Commonwealth Affairs
Downing Street
London SW1A 2AL
United Kingdom

The aided project

The new project in Dumferline consists in:

- the purchase of a partially completed semiconductor manufacturing site;
- completion of the building and facilities;
- installation and operation of semiconductor manufacturing plant.

The project represents a major expansion of capacity. The Dunfermline plant's planned output is more than five times the current output of Motorola's semiconductor production facility at South Queensferry in Scotland.

According to the notification, Motorola Semiconductor Products Sector has been seeking a competitive location for its next major semiconductor investment. Due to a strong European customer base, there is a desire to locate it within the Community but this would have to be the most cost-effective solution for the company. The project consists of obtaining the land and facilities, bringing the building to completion and installing manufacturing equipment for 200 mm wafers to provide a capacity of [...] (*) wafers per week. The manufacturing processes will involve Motorola's proprietary deep sub-micron technology using advanced interconnect. The principal market for the products produced will be cellular telephones. The semiconductor chips produced will be highly advanced and will combine on one chip micro-controller, digital signal processing and other processing blocks (at the moment separate chips are produced). Employment at the site will reach 1 350 by 2004 through a mixture of new job creation and job preservation resulting from the transfer of staff from the nearby Motorola facility at South Queensferry. Manufacturing at South Queensferry will cease during the period of the project. Motorola's alternative for this proposal is partnership with a major wafer foundry company outside Europe or purchase of an alternative site in the United States (US semiconductor manufacturers Atmel and Intel have recently gone down this route, taking over existing plants in Dallas and Colorado respectively).

The details of the project are as follows:

Year to 31 December

	Total	2000	2001	2002	2003	2004
	GBP million	GBP million	GBP million	GBP million	GBP Million	GBP million
Capital						
- land						
- buildings	120	120	-	-	-	-
- installations, machines	1 080	30	240	230	300	280
- tools						
- intangibles						
Subtotal	1 200	150	240	230	300	280

(*) Confidential information

Non-capital						
- additional working capital						
- R&D						
- launching costs (training)	24	-	10	9	3	2
- other (specify)						
Total	1 224	150	250	2 39	303	282

All of the capital expenditure is considered to be eligible for assistance.

The aid measures

The particulars of the aid assistance are as follows:

Year to 31 December

	Total	2000	2001	2002	2003	2004	2005
	GBP	GBP	GBP	GBP	GBP	GBP	GBP
	million	million	million	million	million	million	million
Site	16.0	16.0	-	-	-	-	
Grant	68.2	7.5	18.2	18.2	18.2	6.1	
Training	6.0	-	1.5	1.5	1.0	1.0	1.0
	90.2	23.5	19.7	19.7	19.2	7.1	1.0

The aid is granted on the basis of the Enterprise and New Towns (Scotland) Act 1990, an aid scheme authorised by the Commission in 1997². Under this scheme, the aid is awarded in the form of a grant, although it is possible under exceptional circumstances to provide in kind, either by the sale or lease of property at less than market value. The eligible costs under this authorised scheme are capital investment in fixed assets, which may include land, buildings and equipment as well as the non-recurring training costs related to the new capital.

² See Commission letter SG(97) D/8519 of 16 October 1997 (Case NN 131/97).

The nominal amount of support is GBP 90.2 million and its gross and net grant equivalents are 7.8% and 5.8%, respectively³. The assistance is subject to corporation tax.

Direct and indirect job creation

When the production ramp is completed, there will be a total of 1 350 jobs in the facility. Of these, 650 will have been created the balance being preserved. The mix functions will be as follows:

Function	Number
Engineers/ Manufacturing Management	160
Other Professional Staff	70
Technicians	100
Operators	1 020

Transferring the work force from Motorola's South Queensferry facility will preserve existing permanent jobs. These jobs will be transferred during 2002 and 2003.

According to the UK, the training or retraining period is approximately 13 weeks for all staff.

The UK explains that these jobs would be at imminent risk if the project was not realised, as follows:

The 85% shrink BiCMOS technology in production in the South Queensferry facility will be obsolete by 2003, due to the end of life of the parts produced on it for the current generation of cellular telephones, and replaced by the advanced process that are planned for the new facility. These processes are significantly more complex than the current ones and are produced using 200 mm wafers instead of the 150 mm wafers used at present. The South Queensferry facility is not suitable for upgrade to the new technology for the following reasons:

- (i) The minimum feature for the new technologies will be below 0.2 micron compared with the current process of 0.55 micron. The equipment set used in South Queensferry is not capable of producing parts at this new geometry.
- (ii) In order to be cost effective at this new level it is necessary to produce the 200 mm wafers. This increases the potential number of die per wafer by a factor of 1.77. The buildings in South Queensferry cannot house the equipment required due to its low headroom.

³ According to the notification, Scottish Enterprise will agree to provide Motorola with an option to sell its site at South Queensferry at a pre-determined price of [...]. The UK has forwarded a report prepared by an independent valuator showing the opportunities which might be available should the site at South Queensferry be exposed to the market. The report provides a range of market values depending on different assumptions, and assuming a net book value of [...]. The Commission notes that even in the worst scenario, [...] the aid intensity ([less than 9%]) would still be well below the maximum aid intensity allowable under the Multisectoral Framework for this project (12% NGE).

- (iii) The combination of (i) and (ii) results in a capacity increase of between 5 and 10 times the current output of the South Queensferry plant. For Motorola to have achieved this at South Queensferry, it would have to have rebuilt the plant there.

As regards the indirect job creation, the UK indicates that the “Input-Output Tables and Multipliers for Scotland 1996” lists the type 1 employment multiplier for companies in this sector⁴ as 1.35. Therefore for every 100 jobs directly created in the sector, a further 35 jobs would be created indirectly in supplying industries. This figure comprises indirect effects but not induced effects.

However, the UK has also provided an estimate of more clearly identifiable first tier suppliers/activities, as follows:

Vendor	Function	Location	Employment
Air Products/Ashland	Process gases and chemicals	Bellshill, Scotland	20
Applied Materials	Process equipment support	Newbridge, Scotland	40
ASML	Process equipment support	On-site	8
Compugraphics	Reticle manufacture	Glenrothes, Scotland	6
Countdown	Cleangear management	Livingston, Scotland	4
Dupont	Reticle manufacture	Hamilton, Scotland	6
Edwards High Vac	Pump maintenance	Glasgow, Scotland	4
E.J.Stiell & Co	Facilities maintenance	Livingston, Scotland	20
Group 4	Site Security	On-site	15
Heraeus	Quartz manufacturer	East Kilbride, Scotland	6
MSAS Cargo	Freight	East Kilbride, Scotland	6
Olscot	Cleaning/site maintenance services	On-site	30
Onsite Support	IT services	On-site	15
Osprey	CAD services	East Kilbride, Scotland	6
Semicon	Process equipment services	East Kilbride, Scotland	6
Shinetsu	Silicon	Livingston, Scotland	10
Sutton Services	Site maintenance services	Glasgow, Scotland	8
SVG	Process equipment support	East Kilbride, Scotland	4
TEL	Process equipment support	Livingston, Scotland	6
Other	Maintenance, repair, and operations support	On site/local to Dumferline	90

⁴ [Class 32.1 of the 1992 Standard Industrial Classification which is “Manufacture of electronic valves and tubes and other electronic components” \(page 63, line 73\).](#)

ASSESSMENT OF THE AID MEASURES

Notification requirement

Since the total aid is above EUR 50 million, the envisaged project meets the notification requirements laid down in the Multisectoral Framework.

The competition factor

The products in question

The BiCMOS products⁵ Motorola intends to manufacture in its new plant are an intermediate product in the manufacture of cellular telephones and other wireless applications. Around 80% of the plant's output is expected to be for Motorola's own cellular telephone production plants with the balance for third party telecommunications manufacturers.

Data as to the capacities and the capacity utilisation rate for the production of semiconductors in the wireless telephone and pager market are not available. Consequently, the Commission will assess whether the investment takes place in a declining market as set out in point 3.4. of the Framework. This is the case if, over the last five years, the average annual growth rate of the apparent consumption of the product(s) in question is more than 10% below the annual average of EEA manufacturing industry as a whole.

Motorola's Semiconductor Products Sector supplies to third party customers and also to Motorola's cellular telephone manufacturing operations. Motorola at South Queensferry and in a plant in the US have been the only source of particular BiCMOS products for the telecommunications market and the output of these two plants is used by cellular phone manufacturing operations world-wide. To date, internal demand has been at such a high level that Motorola's own cellular phone plants have taken all of the output (i.e. no sales to third parties).

In view of the above considerations and for the purpose of calculating the growth rates over the past five years, the overall consumption of semiconductors in the wireless telephone and pager markets forms the most appropriate basis.

The geographic dimension

The site will produce semiconductor components that will be sold world-wide. Consequently, and in accordance with points 3.4 and 7.6 of the Multisectoral Framework, the calculation of growth rates will be based on the world-wide consumption figures for semiconductors in the wireless telephone and pager market.

⁵ [CN code: 85421905; NACE code 32.10.](#)

Assessment of the competition factor

The demand for semiconductors in the wireless telephone and pager markets is expected to grow 5.7 % between 1997 and 2002. Unit growth for cordless phones, cellular phones and pagers is expected to be 6.4%, 23.3% and 5.3%, respectively. Continuing price pressure from customers is driving semiconductor prices ever lower as handset producers work to expand the markets for their products. Digital telephones and alphanumeric pagers represent the greatest growth opportunities, with projected unit growth rates of 30.6% for digital cellular handsets, 36.5% for digital cordless phones and 26.4% for alphanumeric pagers.

The problems experienced by the electronic components in 1996 were related to overcapacity for RAM components, but such overcapacity figures do not concern other types of components such as those destined to cellular telephones.

The following table presents a forecast of demand for semiconductors in cordless and cellular phones and pagers:

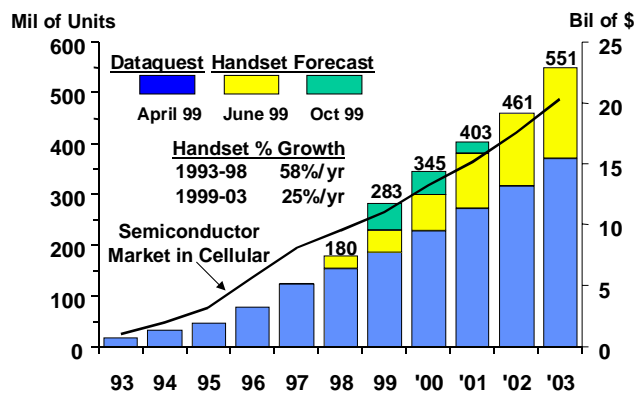
Category	1997	2002	Growth(%)1997-2002
Cordless phones	4.0	4.8	3.4
Cellular phones	31.6	43.1	6.4
Pagers	3.2	3.2	0
Total	38.8	51.1	5.7

Source: Dataquest (March 1999)

This forecast is confirmed by the estimate provided by the UK in the notification:

Cellular Handsets Forecast Revised Up

Dataquest Forecast in Millions of Units



Motorola is forecasting 28% CAGR through 2003 to 640 Mil Units.

The average growth rate of the semiconductor market for mobile communications is 35.8%, as it is shown in the table below (data in USD million)⁶:

	1993	1994	1995	1996	1997	1998
Cordless telephones	1 054	1 153	1 598	1 829	2 002	2 298
Cellular and broadband	1 090	1 943	3 211	5 650	8 052	8 383
PCS telephones						
Pagers	289	403	497	575	552	569
Total	2 433	3 499	5 306	8 054	10 606	11 250
Average growth rate						35.382%

Consequently, there is neither absolute nor relative decline in demand for the products in question, and the competition factor can be set at 1.

The capital-labour factor

With an overall eligible investment cost of GBP 1 200 million (equivalent to EUR 1 917.85 million⁷), 650 permanent jobs will be created and 700 jobs safeguarded. According to point 3.7 of the Multisectoral Framework, the notion of jobs safeguarded will only be relevant where it is demonstrated that they are directly linked to the investment project in question and can thus be assessed in terms of investment aid, as opposed to employment aid. However, in the present case, the capital-labour factor would be the lowest (0.6), either taking or excluding the safeguarded jobs.

The regional impact factor

The UK has supplied the document "Input-Output Tables and Multipliers for Scotland 1996", which provides an estimate - based on an econometric model which is applied to different sectors - of indirect jobs to be created as a result of direct jobs. According to this document, for every 100 direct jobs created in this sector, a further 35 jobs will be created indirectly in supplying companies.

Such general statement was not in line with the Multisectoral Framework requirements. However, the UK has also submitted a detailed list of suppliers which shows a figure of 310 indirect jobs.

The regional impact indicator would be the lowest in either of the two scenarios.

⁶ [Dataquest, Mobile Communications Semiconductor Application Markets, 1992-2002 – market trends \(12 April 1999\).](#)

⁷ [InforEuro, July 2000.](#)

Maximum allowable aid intensity

The regional aid map for the UK foresees an aid intensity ceiling of 20% NGE for the Dumferline area. In the light of the above considerations, the maximum allowable aid for this project is:

$$20 \times 1 \times 0.6 \times 1 = 12\% \text{ NGE}$$

Assessment of the aid measures: conclusion

The proposed aid intensity (5.8% NGE) is below the maximum aid intensity under the Multisectoral Framework for this particular project (12% NGE).

EX-POST MONITORING

In view of the sensitive nature of the large mobile investments involved, it is essential that a mechanism exists which helps to ensure that the level of aid actually disbursed to the beneficiary conforms to the Commission Decision.

The Commission notes that the UK Government declared to comply with the respective obligations laid down in point 6 of the Multisectoral Framework.

DECISION

The Commission has accordingly decided to consider the notified aid to be compatible with the EC Treaty.

If this letter contains confidential information, which should not be published, please inform the Commission within fifteen working days of the date of receipt. If the Commission does not receive a reasoned request by that deadline, you will be deemed to agree to publication of the full text of this letter. Your request specifying the relevant information should be sent by registered letter or fax to:

European Commission
Directorate-General for Competition
Competition Directorate
Rue de la Loi/Wetstraat, 200
B-1049 Brussels
Fax No: 32 (0) 2 296.98.16.

Yours faithfully,
For the Commission

Pedro SOLBES MIRA