PRODUCT AND PROCESS DEVELOPMENT INITIATIVE - PHASE THREE

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These are the contact details that we have for your plant. Please amend if necessary.

Label Here Please Republic of Ireland Companies Indicate the main type of production undertaken in your plant: (tick relevant box)

One-offs	
Small batches	
Large Batches	
Continuous Production	

Please indicate the percentage growth of this plant since 1996:

	Percentage Growth Since 1996
Employment Growth	%
Sales Growth	%

Please indicate *approximately* what proportion of the people who work in your plant have as their highest qualification:

1. Background

Please indicate whether this plant is: (*Please tick relevant box*)

A single-plant company	
A parent or group HQ	
A subsidiary plant in a group	
Other	

If this plant is a subsidiary, in which country is your group's headquarters located?

Location of Group HQ:

In what year did your plant start production?

Year

Please indicate <u>approximately</u> what proportion of your sales (by value) were outside the UK and Ireland in 1998

% of sales

% of WorkforceA degree or equivalent qualification%A technician level qualification (eg. College of Technology
Certificate or Diploma)%A relevant apprenticeship level qualification%Some relevant vocational qualification (eg. Post Leaving
Certificate Qualification)%No post-school vocational qualification%

(Note: percentages should sum to 100%)

For the 1998 business year please estimate:

Average employment	
The value of your sales turnover	£
The value of materials and fuels purchased	£
Total gross expenditure on wages and salary payments	£
Investment spending on plant, machinery and fixed assets	£

Investment spending on buildings	£
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2. Research and Development

(Please tick as appropriate)

	Yes	No
?		

Was any R&D undertaken in your plant in 1998? Is there a formal R&D department in your plant? Is R&D relevant to your plant done elsewhere in the group?

Please *estimate* how many man-years were spent on R&D in your plant during 1998 Man-years:

Approximately what was total R&D expenditure in your plant in 1998 (£000s)? £000s:

3. Product Developments

Have you introduced <u>ANY</u> new or improved products at this plant since 1996?

	Yes	No
Product Changes since 1996		

IF NO SKIP TO SECTION 4

How many new or improved products have you introduced since 1996? Number of new/improved products:

Please *estimate* the proportion of your current sales (by value) that consist of: (*Note: percentages should add to 100%*)

	% of Sales
New products introduced to the market for the first time since	%
1996 by this plant	
New products introduced by this plant since 1996 but previously	%
made elsewhere	
Technically improved products which were being made by this	%
plant in 1996	
Aesthetically improved products which were being made by this	%
plant in 1996	
Products which have remained unchanged since 1996	%

How important were these sources of technology for your product development?

		Not				Very		
		Important		Important	Important		Important	
		1	2	3	4	5		
In-house R&D or development work								
Technology transferred from other group								
companies								
Collaboration with other company								
Purchase of new machinery								
Purchase of manufacturing licence								
Copying competitors or other firms								
Trade shows, fairs etc								
Collaboration with government/agencies								
Collaboration with higher education/researc	h							
institutes								

How important was product development since 1996 in enabling you to:

	Not Impo	Not Important		Im	Very portant
	1	2	3	4	5
Replace out-dated products					
Extend your product range					
Increase or maintain your market share					
Enter new markets					
Reduce production costs					
Produce environmentally friendly products					
Improve product quality					
Match developments by competitors					

4. Process Developments

Have you introduced <u>ANY</u> new or improved production processes at this plant since 1996?

	Yes	No
Process Changes since 1996		
IF NO SKIP TO SECTION 5		

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Have changes in production techniques/processes since 1996 led to *significant* changes in the organisation of production?

Organisational Changes since 1996			
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How important have the following sources of technology been for your process development?

	Not				Very
	Import	ant		Important	
	1	2	3	4	5
In-house R&D or development work					
Technology transferred from other group					
companies					
Collaboration with other company					
Purchase of new equipment					
Purchase of manufacturing licence					
Copying competitors or other firms					
Trade shows, fairs etc					
Recruiting skilled employees					
Collaboration with government/agencies					
Collaboration with higher education/research					
institutes					

5. Information Technology

Does your company have or use (*Please tick relevant boxes*)

	Yes	No
Internal E-mail facilities		
External E-mail facilities		
A Local Area Network (LAN)		
A Wide Area Network (WAN)		
Your Own Locally Run Web Site		
Access to A Group Run Web Site		
Electronic Data Interchange with customers		
Electronic Data Interchange with suppliers		

Does your company have Internet access?

	Yes	No
Internet Access		

IF NO SKIP TO SECTION 6

Do you use the Internet for:

	Yes	No
Gathering information		
Purchasing		
Sharing information in-house		
Raising your company profile		
Advertising/marketing		
Selling products on-line		

6. Manufacturing Techniques

Please indicate if you now use any of the following production techniques. Also, please indicate the date when they were first introduced:

			First Introduced:		
	Use	Befo	re	During	Since
	Now	1994		1994-96	1996
Numerically Controlled (NC) or CNC					
Machinery					
Robotic Equipment					
Automated Materials Handling					
Computer Aided Design (CAD)					
Computer Aided Production					
Management					
Computer Integrated Manufacturing					
Quality Certification (e.g. ISO 9000)					
Total Quality Management					
Quality Circles					
Just in time					
Investors in People					

In terms of replacement value, what proportion of your current production equipment consists of Numerically Controlled (NC) or Computer Numerically Controlled (CNC) equipment?

	0.4
	%

7. Links to Other Firms and Organisations

Since 1996 did you have links with any other companies or organisations as part of your product or process development?

	Yes	No
Links with other companies or organisations		

IF NO SKIP TO SECTION 8

Please indicate the types of companies or organisations that contributed to your product or process development and the way in which you involved them:

		Type of involvement				
	Links with	Collabora- tion	Sub- contract	Other		
Other group companies						
Clients/customers						
Suppliers						
Competitors						
Joint ventures						
Consultants						
Government research labs						
Universities/higher education						
Industry operated labs						
Private research institutes						

How important were these external links in each of the following:

	Not Import	ant		Imp	Very ortant
	1	2	3	4	5
Making developments more cost-effective					
Sharing development costs					
Reducing development risk					
Accessing specialist equipment or technology					
Accessing specialist expertise					
Speeding up development					
Meeting legislative/regulatory requirements					
Accessing additional finance					

8. Government and EU Assistance

Please indicate whether you have received government support for any of the following since 1996. Tick as applicable but omit support of less than $\pounds 5,000$

	Yes	No
Product development		
Process development		
R&D not related to any specific product or process development		
Purchase of licences to manufacture		
New Plant/Machinery		
Exporting		
Management training in relation to product/process development		
Training for product development techniques		
Training for process development techniques		
Best Practice or Benchmarking		

9. Constraints on Product/Process Development

Please indicate if any of the following factors have reduced or hindered product or process development in your plant: (*Please tick relevant boxes*)

	Not	Not Important			Very Important		
	1	2	3	4	5		
Riskiness of product/process development							
Low rate of return							
Attitudinal barriers in this plant							
Lack of necessary finance							
Few market opportunities							
Lack of information about technologies							
Legislative or regulatory requirements							
Lack of partners							
Lack of technical expertise in this plant							
Lack of managerial expertise in this plant							

Thank You for your help

Please send your completed form in the FREEPOST envelope provided to Julie Anderson, Northern Ireland Economic Research Centre, 46-48 University Road, Belfast, BT7 1NJ Tel: 0801232-261808/261811; Fax: 0801232-439435