Annex 1: Methodology

This Annex describes the methodology used by the five countries (Denmark, Finland, the Netherlands, Norway, and Sweden) for the International Sourcing survey. This survey was carried out in the framework of the EUROSTAT ad-hoc survey on the international sourcing of business functions by enterprises.

Objectives

The aim of the survey is to gather information on several aspects of international sourcing such as target countries, kind of activities outsourced, motivation factors, impact, barriers and also the conesquences for domestic employment.

Population frame

The survey covered NACE rev.1 sectors from C to K excluding J in the Netherlands and Sweden. The financial sector (NACE sector J) was included in Denmark, Norway and Finland. Employment size classes of 50 or more employees were covered by all countries except the Netherlands, where the cut-off limit was 100 employees.

Statistical unit

Enterprise

Start of the survey

The survey was carried out during the second and third quarter of 2007 in all five countries.

Frequency

The international sourcing survey is a EUROSTAT pilot project and as such it is a once-off survey.

Type of survey

Most countries carried out a sample survey. Denmark had a census for enterprises employing 50 or more employees and Finland 100 or more employees.

Observation method

EUROSTAT has developed a standard questionnaire. Individual countries introduced additional questions and/or made changes to the existing questions.

The mode of observation varies in different ways. The most important differences between the five countries are presented in table A below.

Table A: Questionnaire on international sourcing.

	Denmark	Finland	The Nether- lands	Norway	Sweden
Mandatory or voluntary	Partly mandatory (questions 1-5) and partly voluntary	mandatory	voluntary	voluntary	voluntary
Paper or electronic format	both	both	both	paper	both
Additions/changes made to Eurostat questionnaire	several	some	minor	several	some

See Annex 2 for the EUROSTAT questionnaire and Annex 2.1 for the detailed additions and changes to this questionnaire in the national questionnaires.

Sample size and response rate

The sample sizes and the response rates are given in Table B below. To facilitate comparison, the number of enterprises in the examined population is also included.

Table B: Number of enterprises in the survey on international sourcing.

	Denmark	Finland	The Nether- lands	Norway	Sweden
100+ Population Sample Response	1 385 1 385 1 358	1 270 1 270 1 059	4 633 1 503 1 002	1 254 950 781	2 304 905 583
Response rate	98%	83%	67%	82%	64%
50 - 99 Population Sample Response	1 653 1 653 1 580	1 242 432 323	- - -	1 258 670 591	2 392 466 295
Response rate	96%	75%	-	88%	63%

Swedish approach

Sweden has divided the survey into two parts a) international and domestic sourcing in the years 2002-2006 and b) planned sourcing in 2007-2009. A total of these two is shown in the above Table B.

The *first* of the surveys has the following design:

Instead of asking a large sample of enterprises whether they have sourced internationally or not, Sweden decided to use existing data the "notice statistics" from the Swedish Labour Market Board. This data includes how many employees have been given notice of lay-off during the year. Employers are required to send information about plans for lay- offs immediately to the Swedish Labour Market Board. The extent of the realized lay-off is not covered in this data. It will, however, appear in the answers to the questionnaires. One or more *reasons* for the lay-off have to be reported as well, e.g. *moving*. Sweden included in the current survey all 625 enterprises from the notice statistics who reportted moving as one reason for the lay-off.

Some remarks:

- These data are only available for the period 2002-2006, which means that 2001 is not covered
- Reporting the lay-off is only mandatory when the number of concerned employees is five or more
- This approach means that Sweden restricts the definition of international sourcing as when employees are given notice about a lay -off because of international sourcing but, given other possibilities in the enterprise, this will not be defined as international sourcing in the survey. Neither will it be if the employees continue to work in the sourced activities, which could be the case between two nations close to one another

Compared to the other countries Sweden has probably underestimated the level of international sourcing but the impact on the relative distribution of functions sourced or destination regions cannot be estimated.

The second survey concerns planned activities during the years 2007-2009. For that purpose, a sample from the Business Register was drawn.

The Swedish survey approach should be taken into account, when analysing the differences in survey results between the countries in this publication.

Checks and correction methods

Each individual country checked the data and treated item non-response.

Weighting

Denmark:

There is no sample of enterprises as the survey was carried out as a census and therefore no regular procedure to raise the data to the total population was needed. However to compensate for unit non-response

the answering population has been considered a sample and the results are raised respectively.

In the raising a number of variables from SBS have been included in the calculation of regression estimates with international sourcing as the target variable (turnover (variable 12110), value added at factor cost (12150), total purchases of goods and services (13110), personnel costs (13310), number of persons employed (16110)).

The NACE activity has been included at a fairly aggregated level taking into account the level stipulated by EUROSTAT and the expected level of detail for national publication purposes.

Finland:

Firstly, data were re-weighted to compensate for non-response. This was done by raising up the sampling weights so that the number of respondent enterprises corresponded to the total population in each strata and size class (50-99 and 100+). Secondly, Finland used post-stratification to generate consistency between the survey data and required NACE breakdowns, especially analytical breakdowns.

Netherlands:

The sampling frame was stratified into 12 strata by size class and group of activity. The three employment size classes were 100-200, 200-500 and 500+. The groups of activity were the four groups proposed by EUROSTAT: high tech manufacturing, medium and low-tech manufacturing, knowledge intensive business services and the rest. The sample size was roughly the same in every stratum. The coverage of the responses over the 12 analytical groups was in proportion to the aim set in advance. Raising the data to the total population was simply done by comparing the population frame to the number of responding enterprises and then multiplying the response with this ratio.

Norway:

The population was divided into strata based on information from the "Norwegian register of cross border transactions and currency exchange" and FATS, economic activity (4 groups), industry priority (3 levels) and number of employees (3 groups). On this basis strata were constructed which consist of a 4 digit number. The first digit indicates source, the second industrial group, the third priority on NACE and the fourth employee size groups.

The sample was drawn in these strata. Raising the data was done strata by strata. This was done by using the ratio between the population frame and number of responding enterprises, and then multiplying the responding enterprises with this ratio.

Sweden:

The population was divided into two subpopulations, the first one consisted of all enterprises from the notice statistics who reported moving as one reason for the lay-off and the second one consisting of the rest of the enterprises with 50 and more employees registered in the

Business Register 2007. The notice statistics population was surveyed as a census and the second sub-population was carried out as a sample based survey. The sampling frame was stratified into 8 strata by size class and group of activity. The two size classes were 50-199 and 200 or more and the groups of activities were the maximum breakdown proposed by EUROSTAT: high-tech manufacturing, medium low-tech manufacturing, knowledge intensive business services and other activities. Within each stratum a simple random sampling was conducted to draw the sample.

For unit non-response, re-weighting of the weights from the design was done in order to raise the data to the total population. The weights from the design were adjusted equally within each stratum. The notice population was post-stratified into the same strata as for the second sub-population.

For item non-response, complementary responses were obtained by recontacting the enterprises. Only a few items with no response remained and they were imputed manually.

Annex 2: EUROSTAT Questionnaire on International Sourcing

International sourcing and plans for international sourcing in your enterprise

1. /	re you part of an enterprise group?
(Tie	k the relevant boxes)
	Yes, the group head (ultimate controlling institutional unit) of an all-resident group
	Yes, the global group head (ultimate controlling institutional unit) of a multinational group
	Yes, a subsidiary – what is the location of the global group head?
	Another EU*- Own country country Outside EU*
	* In this question EU consist of the current 27 Member States
	No
_	

Sourcing activities of your enterprise

Sourcing activities of your enterprise						
2. What types of functions has your enterprise sourced in the period 2001-2006?						
(Tick all that apply)						
	Domestically	Internationally	No functions sourced			
Core business functions						
Production of goods and services for the market						
Support business functions:						
Distribution and logistics						
Marketing, sales and after sales services, including help desks and call centres						
ICT services						
Administrative and management functions						
Engineering and related technical services						
R & D						
Other types of functions, pls. specify:	П	П				

If your enterprise has not sourced any functions internationally 2001-2006, please go to question 8 on future plans.

Sourcing activities of your enterprise carried out internationally during 2001-2006

Please note that the objective of this section of the survey is to focus on *international sourcing*. Therefore the following questions will *only* relate to the sourcing activities carried out by your enterprise to *foreign countries* during 2001-2006.

3. To what kind of business partners has your enterprise sourced functions internationally during 2001-2006?					
(Tick all that apply)					
	Witl	group	To other foreign enterprises (no		
	To existing foreign enterprise of the same group	To new foreign enterprise of the same group (by acquisition)	To newly created foreign enterprise of the same group (green field operation)	ownership or 50 percent or less)	
Core business functions					
Production of goods and services for the market					
Support business functions:					
Distribution and logistics					
Marketing, sales and after sales services, including help desks and call centres	П				
ICT services					
Administrative and management functions					
Engineering and related technical services	П				
R&D					
Other types of functions, pls. specify:		П	П	П	

(Tick all that apply)						J			
(Tick all that apply)	EU15 (1) (old member states) Belgium, Denmark Germany Greece, Spain, France, Ireland, Ita Luxembour Netherland Austria, Portugal, Finland, Sweden, United Kingdom	(ne mem state, Cze, Repu Estou Cypr Latvly, Lithuag, Hungs, Mai Pola Slove Slove Beuga	ber es) ch blic, nia, rus, via, ania, ary, ta, nd, enia, vak blic, aria,	Other European countries, (1) incl. Switzer- land, Norway, Turkey, Russia, Belo Russia, Ukraine and Balkan states	China India	Other Asian countries incl. Japan, Korea, Near- and Far-East and Oceania	USA and	South and Central America, incl. Mexico	
Core business functions									
Production of goods and services for the market									
Support business functions:									
Distribution and logistics									
Marketing, sales and after sales services, including help desks and call centres		П							
ICT services									
Administrative and management functions	П							П	
Engineering and related technical services									
R & D									
Other types of functions, pls. specify:	П				П				

⁽¹⁾ In the national version your own country should be excluded from the list

5. Please give your best estimate of the number of jobs lost and created within the enterprise 2001- 2006 domestically as an impact of the international sourcing activities				
	Total	Of which high skill	Not applicable	Do not know
Number of jobs lost				П
Number of jobs created				

6. Please indicate the importance of the foll	owing motivation factors for your decision to carry out
international sourcing activities	

(Tick-mark once on each line)

	Very important	Some importance	Not important	Not applicable /Do not know
Reduction of labour costs				
Reduction of costs other than labour costs				
Access to new markets				
Following the behaviour / the example of competitors / clients				
Improved quality or introduction of new products				
Strategic decisions taken by the group head				
Focus on core business				
Access to specialised knowledge/ technologies				
Tax or other financial incentives				
Other motivations, please specify:		П	П	П
Optional:				
Improved logistics				
Improved / maintained competitiveness			П	
Lack of available labour				
Less regulation affecting the enterprise				

7. Please evaluate the impacts of the international sourcing activities 2001-2006 for your enterprise						
(Tick-mark once on each line)						
	Negative impact	No impact	Positive impact	Not applicable / Do not know		
Reduction of labour costs						
Reduction of costs other than labour costs			П	П		
Logistics						
Access to new markets						
Improved quality or introduction of new products				П		
Competitiveness						
In-house know-how						
Access to specialised knowledge/ technologies						
Other impacts, please specify:				П		
Optional:						
Customer services						

→ PLEASE GO TO Question 11

Optional question:

7a. What are your future plans concerning international sourcing for 2007-2009? (tick-mark once on each line)							
	Increase	remain at current level	Decrease	Sourcing the total function back domestically again	No plans exist	No decision power in the enterprise (decisions taken by the group head)	applicable/
Core business functions							
Production of goods and services for the market							
Support business functions:							
Distribution and logistics							
Marketing, sales and after sales services, including help desks and call centres					П	П	
ICT services							
Administrative and management functions				П		П	
Engineering and related technical services							
R & D				П		П	
Other types of functions, pls. specify:		П	П	П		П	

[→] PLEASE GO TO Question 11

Plans to source internationally

Questions 8-10 are addressed only to enterprises without international sourcing activities during 2001 to 2006.

8. D	oes your enterprise have plans to source internationally 2007 to 2009?
	Yes
	No → If no please go to q. 12

9. Please indicate the importance of the following motivation factors for your decision to source internationally 2007-2009

(Tick-mark once on each line)

	Very important	Some importance	Not important	Not applicable / Do not know
Reduction of labour costs				
Reduction of costs other than labour costs				
Access to new markets				
Following the behaviour / the example of competitors / clients				
Improved quality or introduction of new products				
Strategic decisions taken by the group head				
Focus on core business				
Access to specialised knowledge/ technologies				
Tax or other financial incentives				
Other motivations, please specify:		П	□	
Optional:				
Improved logistics				
Improved / maintained competitiveness				
Lack of available labour				
Less regulation affecting the enterprise				

10. Into which countries does your enterprise expect to source activities 2007-2009?									
(Tick all that apply)									
	Denmark, Germany, Greece, Spain, France, Ireland, Italy, Luxem- bourg, Nether- lands, Austria, Portugal, Finland, Sweden, United	EU12 (1) (new member states) Czech Republic, Estonia, Cyprus, Latvia, Lithuania, Hungary, Malta, Poland, Slovenia, Slovak Republic, Bulgaria, Romania	pean coun- tries (1), incl. Switzer- land, Norway, Turkey, Russia, Belo Russia, Ukraine and Balkan		India	Other Asian countries incl. Japan, Korea, Near- and Far-East and Oceania	USA and Canada	South and Central America, incl. Mexico	Africa
Core business functions									
Production of goods and services for the market						П			
Support business functions:									
Distribution and logistics									
Marketing, sales and after sales services, including help desks and call centres									
ICT services									
Administrative and management functions	П					П	П		
Engineering and related technical services									
R & D									
Other types of functions, pls. specify:	П					П		П	

⁽¹⁾ In the national version your own country should be excluded from the list

Future impact on employment

Question 11 is addressed only to enterprises with international sourcing activities during 2001 to 2006 and/or having plans to source internationally 2007 to 2009.

11. Please estimate the expected impact on employment in your enterprise in 2007-2009 due to international sourcing								
(tick-mark once on each line) Substantial Some No Not Do not								
	impact	impact	impact	applicable	know			
Moving existing high skill jobs abroad			П	П				
Moving other types of jobs abroad								
Creating new high skill jobs domestically in your enterprise				П				
Creating other types of jobs domestically in your enterprise	П			П				

Barriers for international sourcing

know-how

Missing documentation of own

products and processes

Question 12 on barriers is addressed to all enterprises

12. Please assess the importance of the following barriers when considering or carrying out international sourcing (Tick-mark once on each line) Very Some Not Not applicable important importance important / Do not know Legal or administrative barriers Taxation issues П П П Trade Tariffs П П П П Uncertainty of international П П П П standards Concerns of the employees П П (including the Trade Unions) Concern of violation of patents П and/or Intellectual Property Rights Conflicting with social values of your company (e.g. corporate social responsibility issues) Problems with the distance to producer(s) Proximity to existing clients needed П П П Linguistic or cultural barriers Difficulties in identifying potential/suitable providers abroad Overall concerns of the sourcing operation exceeding expected benefits Other reasons please specify: П Optional: Lack of management resources and

Annex 2.1: Additions and Changes to the EUROSTAT Questionnaire

Denmark

- Concerning the background information the share of employment in Denmark asked if an enterprise is a global group head
- Questions on international expansion other than sourcing added
- O Questions on received sourcing in Denmark added
- O Questions on sourcing back to Denmark added
- Questions on future asked as well from the enterprises already engaged in international sourcing

Finland

- Russia as a separate country added to the list of country groupings
- O Questions on international expansion other than sourcing and on sourcing back to Finland added to the questionnaire

Netherlands

- Did not use the groupings for destination countries but a possibility to name 1 to 3 countries
- In background information concerning the location of global group head it was asked to name the country
- Optional question and optional choices were all included in the national questionnaire

Norway

- O Questions 2, 3 and 4 are merged and asked by each function i.e. if a function sourced domestically or internationally and to a what kind of partner and to what country (no country groupings used but to name a country)
- Questions on future asked as well from the enterprises already engaged in international sourcing
- Plans to source were asked by function, domestic/international and country as in the case of questions 2, 3 and 4
- Questions on international expansion other than sourcing, motivations for it and on sourcing back to Norway added to the questionnaire

Sweden

- The questionnaire is divided into two: one for enterprises with International sourcing another for enterprises without
- There is a separate question on domestic sourcing in both questionnaires

- Questions on future asked as well from the enterprises already engaged in international sourcing
- Estimation of expected impact on employment question (question11) was also asked based on already realised international sourcing – thus there were two employment effect question on realised international sourcing