

Company survey on wood dust in four EU countries

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Aims of the survey

- Current data by industry :
 - Number of workers exposed to wood dust
 - Major species of wood used
 - Type of exposure to wood dust
 - Mono or multiple wood species
 - Type of tasks (Similar Exposure Groups)

Methodology

- In order to collect these information the Woodex team decided to organize a questionnaire survey for companies from several industrial sectors.

Methodology

- Participating countries
- Selection of industrial sectors
- Design and validation of the questionnaire
- Selection of the companies
- Organization of the survey
- Analysis of the data

Participating countries

- Finland and France due to their participation in the Wood Risk project
- Availability of others research teams in Europe
- Geographical location of the country
- Importance of wood related industrial activities of the country in Europe

Participating Countries

- Spain (INHST)

- M. Angeles VICENTE, Marta ZIMMERMAN and Mercedes TEJEDOR



- Germany (Holz -BG)

- Johanes SCHULTZ, Roland SONNTAG and Joachim WOLF

- Finland (FIOH)

- Irma WELLING, Tuula LIUKONNEN and Timo KAUPINNEN

- France (INRS)

- Raymond VINCENT, Michel GRZEBYK, Barbara SAVARY and Marilyne L'HUILLIER

Participating Countries



Participating Countries - Statistics

Country	Spain	Germany	Finland	France
Population	40 847 000	82 542 000	5 206 300	59 625 000
Labour Force	18 340 000	41 850 000	2 610 000	26 700 000
Employed	16 800 000	38 189 000	2 372 000	24 300 000
Unemployed	2 200 000	3 661 000	237 000	2 400 000

Selection of industrial sectors

- Predominant Industrial sectors were determined based on the results issued from the European CAREX study and on data issued from exposure data bases.

Selection of industrial sectors

- Manufacture of wood and wood products NACE 20
- Building and repairing of ships and boats NACE 351
- Manufacture of furniture NACE 361
- Construction
 - NACE 452 (Wood frame installation)
 - NACE 454 (Joinery, Floor covering..)

Design and validation of the questionnaire

- The questionnaire included 10 questions:
 - Q1-Confirmation of the NACE code
 - Q2-Number of workers employed (blue/white)
 - Q3-Use or no use of wood or associated products
 - Q4-Description of activity
 - Q5-Consumption of wood by specie in 2001(m3)
 - Q6-Consumption of wooden boards in 2001(m3)
 - Q7-For installation activity most often used species
 - Q8-Number of workers handling only one wood specie
 - Q9-Number of workers by type of tasks (N,I, F fields)
 - Q10-Percentage of wood machines equipped with LEV

Design and validation of the questionnaire

- A validation study was conducted in Finland and France in order to check that questions were easy to answer and well understood. To confirm that technical terms or words were correctly used.

Design and validation of the questionnaire

After this validation study, an english questionnaire was designed and used for translation in the language of each participating country.

Selection of the companies

- Statistics on labour force (NACE 93) data from EUROSTATS or from national statistic boards for years 2000 and 2001
- Stratified random sampling of companies :
 - Industrial activity (NACE code)
 - Size

Selection of the companies

- Knowledge of the variance of the number of workers per company and by size strata
- Sampling rate higher for small companies than for large companies
- Sampling rates ranged from 6.3% to 100 %

Organization of the survey

- In Finland, Spain and France: questionnaires were sent by mail to selected companies with an explanatory letter. One month later a new mail was sent to non responding companies.
The survey lasted around two months
- In Germany:
Inspectors from Holz-BG visited companies and filled in the questionnaire.

Analysis of data

- FIOH collected and keyboarded data issued from the surveys conducted in Finland and Germany
- INRS acted in the same way for Spanish and French surveys
- After checking of keyboarded data, analysis was conducted by INRS

Analysis of data

- Data collected in each country were analysed in order to calculate estimates by using the procedures SMSUB and STRATSUB of SAS[®] Stat
- Estimates were adjusted to the number of workers of each size strata/NACE

Analysis of Data

Example:

Total number of workers exposed by SEG

	Non- Exposed
	Exposed

Results

Number of Questionnaires/Country

- Finland 1002
 - Spain 2999
 - France 3099
 - Germany 2115
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- Period of the survey :
From September 2002 to May 2003

Results

Response rate/country

- Finland 31,7%
- Spain 42,5%
- France 41,7%
(33,1-57,4%)
- Germany 100%

Conclusion

- All the data collected were used for calculating different estimates according to the aims of the Woodex company survey
- Associated with exposure data and country questionnaire they permit to estimate the number of workers exposed to wood dust in EU by:
 - Industrial activity
 - Wood specie
 - Level exposure