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Appendix EUCOWE Questionnaire

A Survey of Operating Hours, Working Time and Employment in France, Germany, the Netherlands, Portugal, Spain and the United Kingdom

Instructions

- Please ensure that all answers refer exclusively to the *addressed local unit* (i.e. your establishment)
- Please answer by ticking the relevant boxes or writing on the lines where indicated.
- The question relate to the situation at your establishment in a typical week in March or April 2003.
- All responses are completely *confidential*.
- Please return the questionnaire even if you are unable to complete it fully.
- Use the pre-paid reply envelope to return your questionnaire.
- Further information about this survey can be found at:
www.iso-koeln.de/eucowe/

If you have any queries about the questionnaire please contact:

Name

Section 1: The local unit

- 1 What is your main product or service?
.....
- 2 Is the establishment:
- An enterprise or part of an enterprise
 - A public sector body (go to question 6)
 - A non-profit organisation
 - Other (please specify):
- 3 Is the establishment:
- The only establishment in the enterprise/organisation
 - One of a number of establishments within an enterprise/organisation
- 4 Which of the following best describes the ownership or control of your organisation?
- (Country) owned or controlled (go to question 6)
 - Jointly (country) and foreign owned or controlled (go to question 5)
 - Foreign owned or controlled (go to question 5)
- 5 What is the nationality of the foreign main-owner or partner of your organisation?
.....
- 6 How long has the establishment been in existence?
- More than 10 years
 - 5-10 years
 - Less than 5 years
- 7 Does your local unit negotiate or follow a collective agreement on the branch or firm level covering working times and/or operating hours?
- Yes
 - No
- 8 At which levels does the local unit experience competition?
(tick as many as appropriate)
- Local
 - National
 - International
 - Not applicable

Section 2: Employees, operating hours and contractual working times

The following questions refer to the number of employees, the operating hours and working times of employed persons in your establishment in a usual week in March or April 2003.

- 9 Please report the number of employees at your establishment in the following categories (please include agency workers, but exclude subcontractors, freelancers and honorary employees). *If exact values are not available, please estimate.*

Total number of employees

Number of female employees

- 10 What percentage of your employees fall into the administrative, technical or managerial category?

%

- 11 Please report the number of agency workers and fixed-term employees at your establishment. (please exclude subcontractors, freelancers and honorary employees). *If exact figures are not available, please estimate.*

Number of agency workers and fixed-term employees

- 12 Compared to 1998* has the number of employees decreased, remained about the same or increased?

Employment decreased by about %

Employment remained about the same

Employment increased by about %

* or since establishment began operating, if later.

13 Contractual working hours

Please report the number of employees with the following *contractual weekly working hours* in a usual week in March or April 2003. *If exact figures are not available, please estimate.* If the reference period for working time is not a week, please state approximate weekly average.

Number of employees with contractual working hours between:

1-10 hours	11-12 hours	21-29 hours	30-34 hours	35-40 hours	41-48 hours	49-60 hours
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Number of employees without an agreed number of hours employees

Please estimate the average weekly working time of employees without an agreed number of hours hours

14 On average how many days holiday do your employees have in a year, excluding national holidays and working time reduction days? days

Section 3: Operating hours

Operating hours are the weekly business hours of your local unit including preparation times and times for maintenance. Operating hours can be just as long as the contractual working times of full time employees but they can also be longer. For local units in the service sector operating hours are not only the times of provision of services but also the times needed to enable the services to be provided.

15 How many hours does your establishment operate on a typical working day? hours

16 In a typical week in March or April 2003 on which days did your establishment operate? (*tick all that apply*)
 Monday Tuesday Wednesday Thursday Friday Saturday Sunday

17 Over the last year how many days did your establishment not operate? days

18 How many hours did your establishment operate in a typical week in March or April 2003? hours

19 Compared to 1998* have the weekly operating hours decreased, remained about the same or increased?

- Weekly operating hours decreased by about %
- Weekly operating hours remained about the same
- Weekly operating hours increased by about %
- * or since establishment began operating, if later

Section 4: Work organisation

Staggered working times

Staggered working time is a pattern of work where the hours of some workers overlap with those of others but is not shift work, for example one group of employees works from 7 a.m. to 2 p.m., another from 9 a.m. to 4 p.m. and a third group from 11 a.m. to 6 p.m. Thus operating hours stretch from 7 a.m. to 6 p.m.

20 In a typical week in March or April 2003 did your local unit utilise staggered working times?

- Yes
- No (*go to question 23*)

21 Does your local unit utilise staggered working times to: (tick all that apply)

- Lengthen operating hours
- Cope with peak periods

22 Please report how staggered working times were organised in a typical week in March or April 2003:

Number of days per week with staggered working days

Earliest possible start time

Latest possible end time

Total number of employees with staggered working times employees

Shift work

23 Did your local unit utilise shift work in a typical week in March or April 2003?

- Yes
- No (*go to question 27*)

24 How is your shift system organised? (*tick all that apply*)

- Continuous shift system (24 hours a day, 7 days a week)
- Semi-continuous shift system-model 1 (24 hours a day, 6 days a week)
- Semi-continuous shift system-model 2 (24 hours a day, 5 days a week)
- Intermittent shift system (less than 24 hours a day)

25 How many employees, on average, work in the respective shift systems?

Continuous shift system (24 hours a day, 7 days a week) employees

Semi-continuous shift system-model 1
(24 hours a day, 6 days a week) employees

Semi-continuous shift system-model 2
(24 hours a day, 5 days a week) employees

Intermittent shift system (less than 24 hours a day) employees

26 *For intermittent shifts only:*

On average, how many hours a day do you operate with intermittent shifts? hours

How many days per week do you operate with intermittent shifts? days

27 Did your establishment operate on a Saturday in a typical week in March or April 2003?

- Yes
- No (*go to question 28*)

Please report the number of employees working on a Saturday in a typical week in March or April 2003:

employees

28 Did your establishment operate on a Sunday in a typical week in March or April 2003?

- Yes
 No (go to question 29)

Please report the number of employees working on a Sunday in a typical week in March or April 2003: employees

Section 5: Flexibility

29 Please indicate whether the establishment experienced considerable fluctuations in business activity in 2002.

- Experienced considerable fluctuations
 Did not experience considerable fluctuations (*go to question 32*)

Considerable fluctuations in 2002	Within a day		Within a week		Within a year	
	Fore-seeable fluctuations	Unfore-seeable fluctuations	Fore-seeable fluctuations	Unfore-seeable fluctuations	Fore-seeable fluctuations	Unfore-seeable fluctuations
Did the establishment experience any of the following fluctuations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

30 How do you cope with fluctuations?

Please tick the most important measures used (maximum 4).

- Overtime
 Short time
 Saturday work
 Sunday work
 Changes in shift patterns
 Staggered working times
 Working time accounts/Flexitime/Annualised working-time
 Subcontractors/agency workers/On-call workers/freelancers
 Hiring and firing
 Other

31 Is your establishment more or less able to cope with fluctuations in demand or activity compared to 1998*?

- Less able
 No change
 More able
 Don't know

* or since establishment began operating, if later.

32 Please report the number of overtime hours used in the establishment in a typical week in March or April 2003. (*If exact values are not available, please estimate.*) Enter zero if overtime not used.

Total overtime hours hours

33 Does your establishment pay premia for the following working time patterns? Please tick as many as appropriate.

	Financial premia	Time in lieu	
		"1 : 1"	More than "1 : 1"
Overtime	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shift work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Saturday work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sunday work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Staggered working times	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

34 Please estimate the share of labour costs in relation to total costs %

35 Compared to 1998*, has the share of labour costs in relation to total costs decreased, stayed constant or increased?

- Decreased
 Stayed constant
 Increased

* or since establishment began operating, if later.

Do you have any additional information or comments?

Thank you for completing the questionnaire.

Please use the pre-paid reply envelope to return your questionnaire.

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(with F. Bauer, K. Lehmann and E. Munz); *Betriebs- und Arbeitszeiten 2005. Ergebnisse einer repräsentativen Betriebsbefragung* (Dortmund, 2007) (with M. Schwarz); *Operating Hours and Working Times. A Survey of Capacity Utilisation and Employment in the European Union* (Heidelberg: Physica Verlag, 2007) (edited with L. Delsen, D. Bosworth and R. Muñoz de Bustillo y Llorente).
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