Network Enterprise for Health

Flexible work practices: current and future trends in working life and the impact on corporate performance

TNO Work and Employment

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24th May 2004, Schaan/Liechtenstein
Content

• **Trends**
  • Flexibility needs
  • Flexibility measures in use

• **Impacts: opportunities and risks**

• **Towards sustainable flexibility**

• **Flexibility scan participants ‘Enterprise for Health’**
  • Bertelsmann AG
  • Hilti AG
  • HÅG asa
  • Kostal CR, spol. s r.o.
  • Endress 1 Hauser Consult AG
  • Ford Werke AG
  • Stora Enso
  • ALCOA-KÖFÉM LTD.
  • Shell - Engineering of maintenance department
  • Shell - Control laboratory
Company’s need for flexibility

Changing market conditions
- Fluctuations and unpredictable markets
- More variety in products and services
- Higher speed
- Higher quality demands

Changing labour market
- Supply of qualified personnel
- Demands and needs of employees
- Legislation

Labour flexibility

Changing work processes
- Higher complexity
- Network organizations
- Just in time delivery

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## Flexibility need: market

<table>
<thead>
<tr>
<th>Market issues</th>
<th>Mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluctuations in volume</td>
<td>great</td>
</tr>
<tr>
<td>Product range</td>
<td>great</td>
</tr>
<tr>
<td>Short delivery time</td>
<td>important</td>
</tr>
<tr>
<td>Reliability of delivery time</td>
<td>great</td>
</tr>
<tr>
<td>Predictability</td>
<td>small</td>
</tr>
</tbody>
</table>
### Flexibility need: production concept

<table>
<thead>
<tr>
<th>Production concept</th>
<th>Mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focus on throughput time</td>
<td>weak</td>
</tr>
<tr>
<td>Importance of chains and networks</td>
<td>little</td>
</tr>
<tr>
<td>Significance of pull production</td>
<td>little</td>
</tr>
<tr>
<td>Process complexity</td>
<td>little</td>
</tr>
<tr>
<td>Modularity of the range of products</td>
<td>little</td>
</tr>
</tbody>
</table>
### Flexibility need: labour market

<table>
<thead>
<tr>
<th>Labour market issues</th>
<th>Mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>shortage of competent staff</td>
<td>none</td>
</tr>
<tr>
<td>qualifications of current staff</td>
<td>low</td>
</tr>
<tr>
<td>demands regarding quality of working life</td>
<td>little</td>
</tr>
<tr>
<td>impact of increasing individuality</td>
<td>little</td>
</tr>
<tr>
<td>restricting influence of rules and regulations</td>
<td>small</td>
</tr>
<tr>
<td>level of absenteeism</td>
<td>low</td>
</tr>
<tr>
<td>turnover</td>
<td>low</td>
</tr>
</tbody>
</table>

- shortage of competent staff: serious
- qualifications of current staff: high
- demands regarding quality of working life: great
- impact of increasing individuality: great
- restricting influence of rules and regulations: large
- level of absenteeism: high
- turnover: high
Company strategies of flexibility

• **Ad hoc flexibility:**
  Short-term strategy to fill in sudden peaks or absenteeism through working overtime and hiring temporary agency workers

• **Quantitative (numerical) flexibility:**
  Optimal adaptation of the quantity of the personnel to changes in the amount of work, through the implementation of flexible working time arrangements, flexible employment contracts, part-time work and on-call contracts and the hiring of seasonal personnel

• **Qualitative (functional) flexibility:**
  Optimal use of the employee’s capacity to perform different tasks when needed due to fluctuations in the demand, through job rotation, job enlargement and job enrichment
Flexibility measures in Dutch companies

- **Quantitative flexibility**
  - 18.6%
  - 14.8%
  - 17.5%
- **Qualitative flexibility**
  - 3.1%
  - 2%
  - 4.9%
  - 5.3%
  - Ad hoc flexibility
- **No flexible labour**: 33.8%
Future strategy on flexibility

- Functional flexibility: expand
- Working time flexibility: status quo
- Part-time work: reduce
- Percentage of flexible contracts: expand
- Company opening hours: status quo

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Flexibility measures in use (Enterprise for Health)

- Ad hoc
- Contracts
- Working Hours
- Functional

- Use of short term temp
- Use of fixed term contracts
- Use of seasonal contracts
- Use of structural temp agency work
- Use of part time
- Use of compressed week
- Use of staggered hours
- Use of shift discontinuous
- Use of shift semi continuous
- Use of shifts continuous
- Job rotation
- Job enrichment
- Work different department
- Work different locations
- Work in teams
- Labour pools
- Lend or borrow
- On call work
- Struct temp agency work
- Annual hours
- Flexitime
- Leaves
- Shifts continuous
- Shifts semi continuous
- Shifts discontinuous
- Shift continuous
- Shift discontinuous
- Staggered hours
- Shifts
- Compressed week
- Part time
- Ad hoc
- Contracts
- Working Hours
- Functional

- May 24th 2004

- Total
<table>
<thead>
<tr>
<th>Strategies of flexibility</th>
<th>Costs and benefits for the company</th>
<th>Costs and benefits for the employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ad hoc flexibility:</td>
<td>- quick solution for peak and absence, no planning systems needed</td>
<td>- overtime: additional income (short term)</td>
</tr>
<tr>
<td></td>
<td>- risk of loss of product quality</td>
<td>- risk for health (longer term)</td>
</tr>
<tr>
<td></td>
<td>- short term temp work only possible in case of low task complexity</td>
<td>- risk for stress (own tasks not done, instruction of temp workers)</td>
</tr>
<tr>
<td></td>
<td>- colleagues taking over tasks</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- working overtime</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- use of short term temporary agency contracts</td>
<td></td>
</tr>
</tbody>
</table>
### Strategies of flexibility

<table>
<thead>
<tr>
<th>Flexible contracts:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- fixed term contracts</td>
</tr>
<tr>
<td>- seasonal contracts</td>
</tr>
<tr>
<td>- temporary agency work (structural use)</td>
</tr>
<tr>
<td>- on call work</td>
</tr>
</tbody>
</table>

### Costs and benefits for the company

- fill in strong fluctuations in the demand of work
- avoid overcapacity, low investment in labour
- selection of new personnel
- risk on loss of quality
- training needs

### Costs and benefits for the employees

- job insecurity
- risk for employability, skill development
- possibility to combine work with family life
- work experience
- pressure on core (?)

- use of labour pools
- lend or borrow personnel from other companies

- experienced workers
- planning system needed (with other organisations, intermediaries)
- competition among companies

- in comparison to other forms of flexible contracts: more job security and ability for skill development
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<th>Costs and benefits for the employees</th>
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</thead>
<tbody>
<tr>
<td><strong>Flexible working hours:</strong></td>
<td>- longer opening hours</td>
<td>- combination of work and family life, depending on predictability, and control over working hours</td>
</tr>
<tr>
<td>- part time contracts</td>
<td>- optimal use of resources</td>
<td>- health risks depending on work schedule, work cycle (recovery time)</td>
</tr>
<tr>
<td>- compressed working week</td>
<td>- shorter cycle times</td>
<td>- health also depending on balance job demands/job control</td>
</tr>
<tr>
<td>- shift work</td>
<td>- answer to (short and midterm) fluctuations</td>
<td>- loss of involvement and employability (part time work)</td>
</tr>
<tr>
<td>- staggered hours</td>
<td>- answer to individual needs of employees: attractive employer</td>
<td></td>
</tr>
<tr>
<td>- annual hours and averaging schemes</td>
<td>- in physically demanding tasks (part time)</td>
<td></td>
</tr>
<tr>
<td>- flexitime</td>
<td>- planning systems needed (capacity management)</td>
<td></td>
</tr>
<tr>
<td>- different types of leaves</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Functional Flexibility
- job rotation
- job enlargement, job enrichment
- work in different departments
- work at different locations
- work in teams

### Costs and Benefits for the Company
- meet daily variety in work
- meet mid- en long term changes in work
- potentially good for employee involvement and innovation
- requires continuous investment in HRM
- competence management
- training needs

### Costs and Benefits for the Employees
- employability, skill development
- possible decrease in physical load (job rotation)
- possible risk of emotional exhaustion (attention to balance job demands – job control, information)
Towards sustainable flexibility

• Integral approach, aiming at:
  • The adaptability of the organisation (flexibility) to the demands of the market, changes in work processes and personnel needs
  • In combination with healthy, motivated and employable employees (sustainability)

• Balance between organisation and individual
• Participative approach
• Structural flexibility strategies instead of ad hoc strategies
TNO Approach on Flexibility (1)

- Organization’s goals
- Employees goals
- Flexibility demand
- Flexibility capacity
- Impact on organization
- Impact on employees
TNO Approach on Flexibility (2)

Step 1 & 2:
• What flexibility is needed facing the demands? (1)
• How does the organization respond to these needs? (2)

Step 3 & 4:
• What is the future strategy (the goals and preferences)? (3)
• What are the consequences of this strategy? (4)
• Problems and solutions

Step 5 & 6:
• What are the conditions for implementation? (5)
• Evaluation (6)
Company case

• Example:
  • highly innovative company in the semi conductor industry

• Question:
  • How do we achieve more flexibility with our personnel strategies?
    • in particular with our working hours system
    • cost effective and socially accepted
Flexibility need in practice

1. Short term flexibility (unpredictability in daily work)
2. Mid term flexibility (fluctuations in work)
3. Long term flexibility (response to upturn and downturn)
4. Continuous process of cycle time reduction
5. Higher output in upturn
### Different flexibility measures

**Flex Mix 1:**
- Flexible working hours (structural)
- Overtime (incidental)
- Multi-skilling and job rotation within teams
- Colleagues taking over

**Flex Mix 2:**
- Flexible working hours (structural)
- Overtime (incidental)
- Temporary agency personnel, other short term contracts
- Multi-skilling and job rotation between teams

**Cycle time reduction**
- Higher output:
  - More personnel
  - Longer opening hours

**Flex mix 3a**
- Use of short term contracts, temporary agencies, lend and borrow personnel, labour pools
- Multi-skilling and job rotation between teams

**Flex mix 3b**
- Flexible working hours (structural)
- Overtime (incidental)
- Temporary agency personnel, other short term contracts
- Multi-skilling and job rotation between teams

**Flex mix 3c**
- Flexible working hours (structural)
- Overtime (incidental)
- Temporary agency personnel, other short term contracts
- Multi-skilling and job rotation between teams

**Horizon**
Different flexibility measures

Flex Mix 1:
- flexible working hours (structural)
- overtime (incidental)
- multi-skilling and job rotation within teams
- colleagues taking over

Flex Mix 2:
- flexible working hours (structural)
- overtime (incidental)
- temporary agency personnel, other short term contracts
- multi-skilling and job rotation between teams

Flex Mix 3a:
- use of short term contracts, temporary agencies, lend and borrow personnel, labour pools
- job rotation between departments

Higher output:
- more personnel
- longer opening hours

Cycle time reduction
Costs and benefits of work schedules

- 8 hours work day
- 7 x 24 hrs opening
- 2 shifts (5 x 16 hrs)

Costs and benefits include:
- Manageability
- Number of staff
- Quality of work and life
- Innovation
- Product quality
- Work in progress (WIP)
- Output
- Cycle time
- Quality of work and life
- Manageability

Schedules:
- Short term flex
- Mid term flex
- Long term flex
Costs and benefits of work schedules

- Functional flexibility
- Flexibility in work schedules
- HR rules and coaching, capacity and competence management
- Largest capacity in day
- Functional flexibility
- Support

- 8 hours work day
- 7 x 24 hrs opening
- 2 shifts (5 x 16 hrs)
- Temporary agency work
- Flexible work proces
- Ergonomic improvement of factory
- Work on saturday
Conclusion

• Balance between organisation and individual
• Conditions for sustainable flexibility
  • Take care of high job demands
  • Adequate job information in case of functional flexibility
  • Control over working time
  • Access to skill development for employees with flexible contract and part time employees
• Involvement of employees in implementation
• Integrated approach
  • Mix of flexibility measures
  • Impacts
Discussion
Annex 1: Employment status in the EU

- Results of Working Conditions Survey of European Foundation for the Improvement of Working and Living Conditions (2000)
- Results of Case study research European Foundation (2000)
Three scenario’s

• Transfer of unfavorable conditions of work to non permanent employees:
  • unfavorable ergonomic conditions for non permanent contracts (due to sector)

• Segmentation in conditions of employment:
  • lack of control over working time
  • low job control, and
  • low skill development, for non permanent employees and part time employees

• Intensification of work for ‘core’ workers:
  • No differences in job demands between permanent and non permanent employees
  • more active jobs among permanent employees
Employment status: conditions of work (EU 2000)

- Unfavourable ambient conditions:
  - Permanent full time: 12.7%
  - Permanent part time: 8.1%
  - Non permanent full time: 13.4%
  - Non permanent part time: 7.8%

- Unfavourable ergonomic conditions:
  - Permanent full time: 26.8%
  - Permanent part time: 24.9%
  - Non permanent full time: 30.1%
  - Non permanent part time: 24.9%
Employment status: conditions of employment - 1 (EU 2000)
Employment status: conditions of employment - 2 (EU 2000)

- Lack of skills:
  - Permanent full time: 26.4%
  - Permanent part time: 32%
  - Non permanent full time: 31.6%
  - Non permanent part time: 39.5%

- No training:
  - Permanent full time: 61.9%
  - Permanent part time: 66.3%
  - Non permanent full time: 68.9%
  - Non permanent part time: 73.4%
Employment status and job demands & control (EU 2000)
Annex 2: Labour Flexibility in the Netherlands

• Results of Dutch Ministry of Social Affairs Employers Survey (1998)
Impact of having a flexible contract on employees

Employees with a temporary contract have:

• approx. 3 times more often experienced downwards mobility (temporary agency workers 4 – 5 times more)
• 2 - 3x less chance of additional training (temporary agency workers 4 – 5 x)

In comparison with employees with a permanent contract

• Taking into account all other variables, there is no difference in commitment to the work (only specific groups)
Impacts of having a (small) part time contract

Employees with a small part time contract (<12 hours a week):

• have experienced 80% more often downwards mobility

• receive half as much training

In comparison with employees with a full time contract
Impact of functional flexibility on employees - 1

Being functional flexible (on a regularly basis taking over tasks of colleagues and managers) leads to:

• 20% - 60% more chance on higher commitment
• 20% - 40% more chance of having received additional training

In comparison to employees who are not functional flexible
Impact of functional flexibility on employees - 2

But also:

- 50% - 100% higher chance of high job demands
- 30% - 50% higher chance on emotional exhaustion due to these job demands

In comparison to employees who are not functional flexible
Conditions for sustainable flexibility

Quantitative flexibility
- Access to skill development for employees with flexible contracts and part time contracts
- Control over working time

Qualitative flexibility
- Adequate job information for employees that are functional flexible
- Take care of high job demands