Use of ICT and paper : a paradox
Consequences on health and safety

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Context and purposes

• Expected benefits from the introduction of ICT
  ■ Time saving
  ■ Fewer data entries
  ■ Less paper to manage

• Purposes
  ■ Analyse the real benefits
  ■ Analyse the health and safety consequences
Method

• Ergonomic approach
  ■ Six-year longitudinal study
  ■ Road freight transport company
  ■ Interviews and observations of different company stakeholders
  ■ Follow the development of the use of ICT (before it was introduced up until now)
  ■ On-board computer system (OCS) for:
    > Communication between operators and drivers,
    > Vehicle tracking...
Results

- Communication tools: email, telephone, freight exchange
- Management tools: pack office, transport software, Electronic Data Interchange (EDI)

Before the OCS

- Paper
  > a paper trail
  > a transition tool
Results (1/2)

- Communication tools: email, telephone, freight exchange
- Management tools: pack office, transport software, Electronic Data Interchange (EDI)
- Paper
  > a paper trail
  > a transition tool
- Change in the distribution of tasks
- Accelerated pace of work: from 1 minute 11 seconds to 53 seconds
- More communication: from 9 hours 16 minutes to 14 hours 35 minutes
- More time using paper: from 8 hours 29 minutes to 20 hours 46 minutes

- Double entry and consultation of information systems
- Need for coordination
- Multiple information structuring

- Acceleration of the pace (intensification)
- Higher information load
Results (2/2)

• A major increase in the use of ICT and paper
  ■ Time of use: from 10 hours cumulated in 2011 to 16 hours 33 minutes in 2016
  ■ Frequency of use: twice as more paper and six times more installations of Pack Office ©
  ■ General intensification: 30 format changes per hour in 2011 compared to 70 in 2016

Between 2011-2016
Conclusion

• Benefits for the company with ICT
  ■ Less paper to manage : NO
  ■ Fewer data entries : NO
  ■ Time saving : NO

• Report with ICT
  ■ An increase in information load
  ■ An intensification of the operator’s activity

⇒ Health and safety consequences
Questions ?