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# Intelligent street lighting in Oslo, Norway



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# Agenda

- ❖ **Introduction to intelligent streetlighting**
- ❖ **Market**
- ❖ **Positive driving forces**
- ❖ **Hindrances for the introductions**
- ❖ **Drivers to come**

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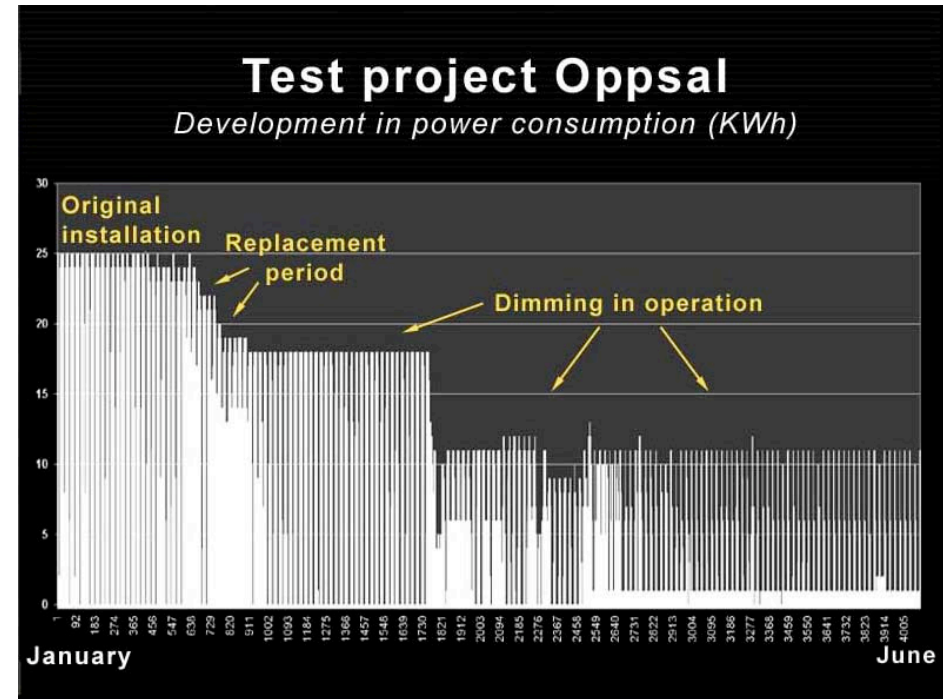
# European Market



- ❖ **Overall saving potential 38 TWh/Year**
  - ◆ Replacing old installations reduction 37 %
  - ◆ Dimming and regulating another 45 %
  - ◆ Total effect: 66 %
  
- ❖ **Oslo case (savings before “trimming”)**
  - ◆ 117 units (2003) - Pilot project (67 % savings)
  - ◆ 2.000 units (2004) - Full scale test project (62 %)
  - ◆ 4.000 units (2005/6) - Full scale project (52%)
  
- ❖ **Utilizing the system**
  - ◆ Adaptive lighting due to weather conditions, traffic volume, traffic speed etc.

# Positive driving forces

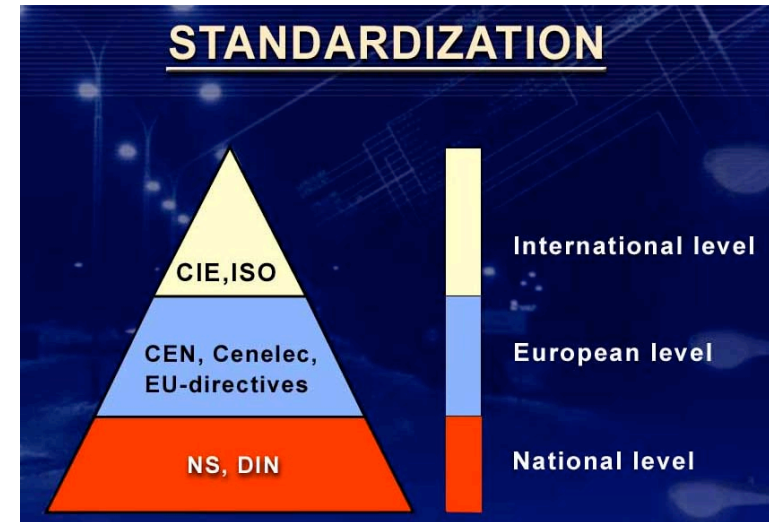
- ❖ Symbolic value
- ❖ Dimming
- ❖ Environmental aspects
- ❖ Safety
- ❖ Prevention of crime
- ❖ Public services
- ❖ Free electricity market
- ❖ Improved maintenance level
- ❖ Common general technical specifications
- ❖ Financing mechanism



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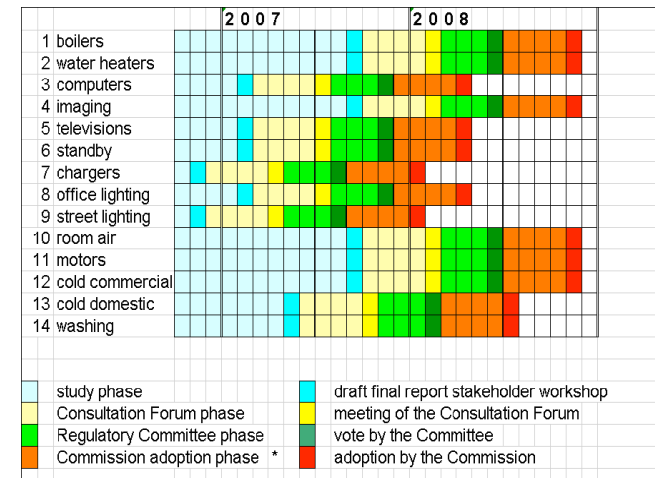
# Hinderence for the introduction

- ❖ New technology
- ❖ Legislation, guidelines and standards
- ❖ Ownership
- ❖ Electricity tariffs



# Drivers to come

- ❖ Directive on energy consumption for outdoor lighting?
- ❖ EuP
- ❖ Quality criteria for electricity supply
- ❖ Metering



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# Acknowledgement

❖ Mr Eirik Bjelland, Hafslund



❖ Mr Tom Kristoffersen, City of Oslo

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# Contact info

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**Thank for your attention!**