

## **Energy efficiency and CO<sub>2</sub> mitigation la fondue à la Suisse**

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on behalf of the Swiss Federal Agency for the Environment

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# The Swiss Frame Conditions

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- ⌘ **Kyoto goal: - 8% GHG**
- ⌘ **Five GHG (without CO<sub>2</sub>) regulated**
- ⌘ **Share of CO<sub>2</sub> in Swiss overall GHG emissions: 83%**
- ⌘ **Thus: CO<sub>2</sub> reduction law**
  - ☒ **-10% CO<sub>2</sub>**
  - ☒ **emphasis on voluntary activities**
  - ☒ **subsidiary CO<sub>2</sub> tax**

# Current Situation

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⌘ **CO<sub>2</sub> tax introduced as of 1.1.2008**

☒ **3 steps: 8/16/24 Euro/t CO<sub>2</sub> in 2008/2009/2010+**

⌘ **Implementation of activities in industries by Swiss Private Sector Energy Agency**

⌘ **Main activity: Swiss Energy Model**

☒ **groups of companies set goals ( $\pm$  10 years)  
basis: all economic measures to be implemented**

☒ **coached by a moderator/technical expert**

☒ **technical consulting**

☒ **exchange of experience**

☒ **monitoring to check compliance**

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# Results I

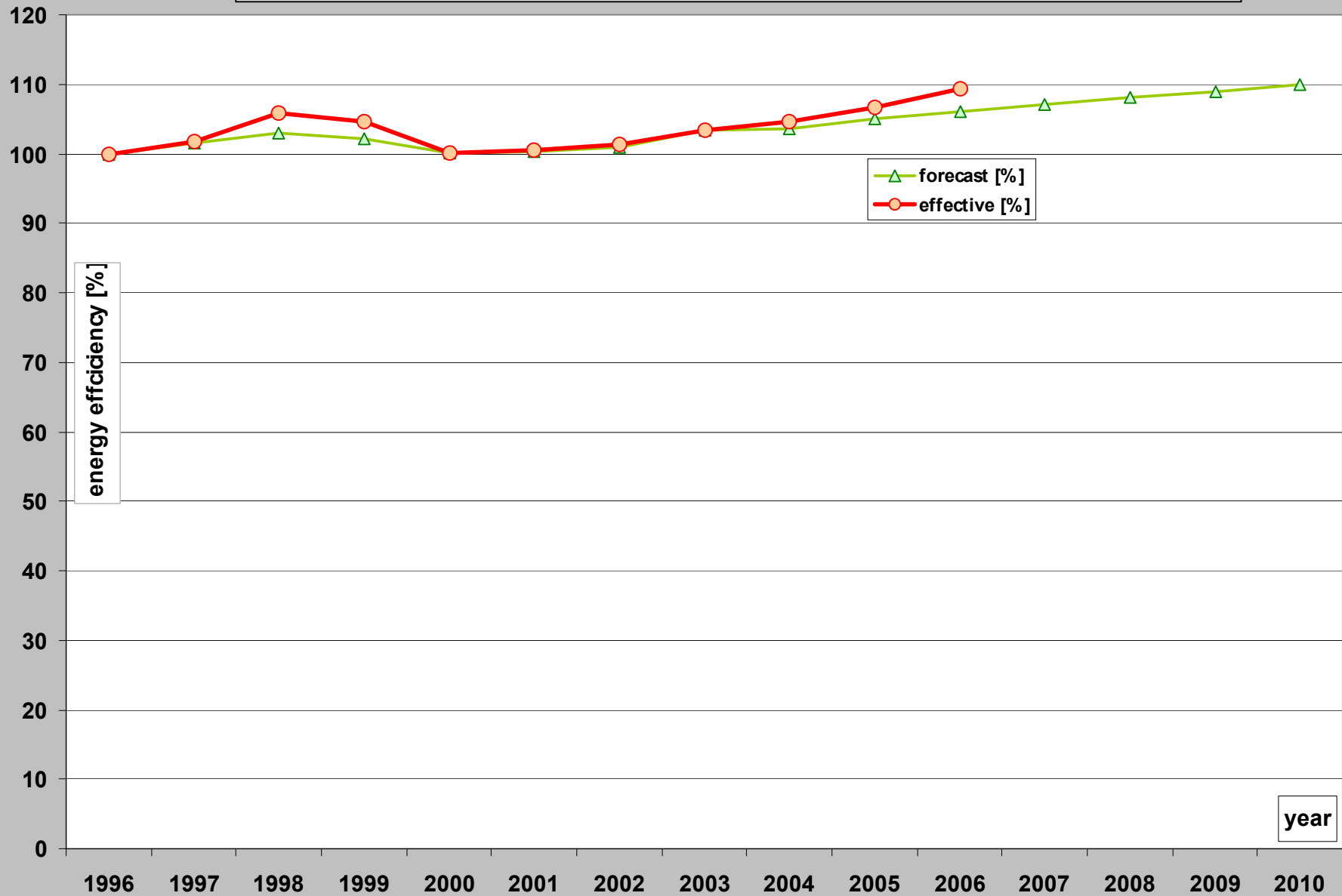
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- ⌘ **approx 75 active groups (1'400 comp.) in agency**
- ⌘ **cover ~ 40% of CO<sub>2</sub> emissions of industry sector**
- ⌘ **planned overall CO<sub>2</sub> reduction 1'200 kt/a (~ 25%) from 1990 to 2010**
  - ☒ **includes structural change in industry**
- ⌘ **monitoring with web based system**



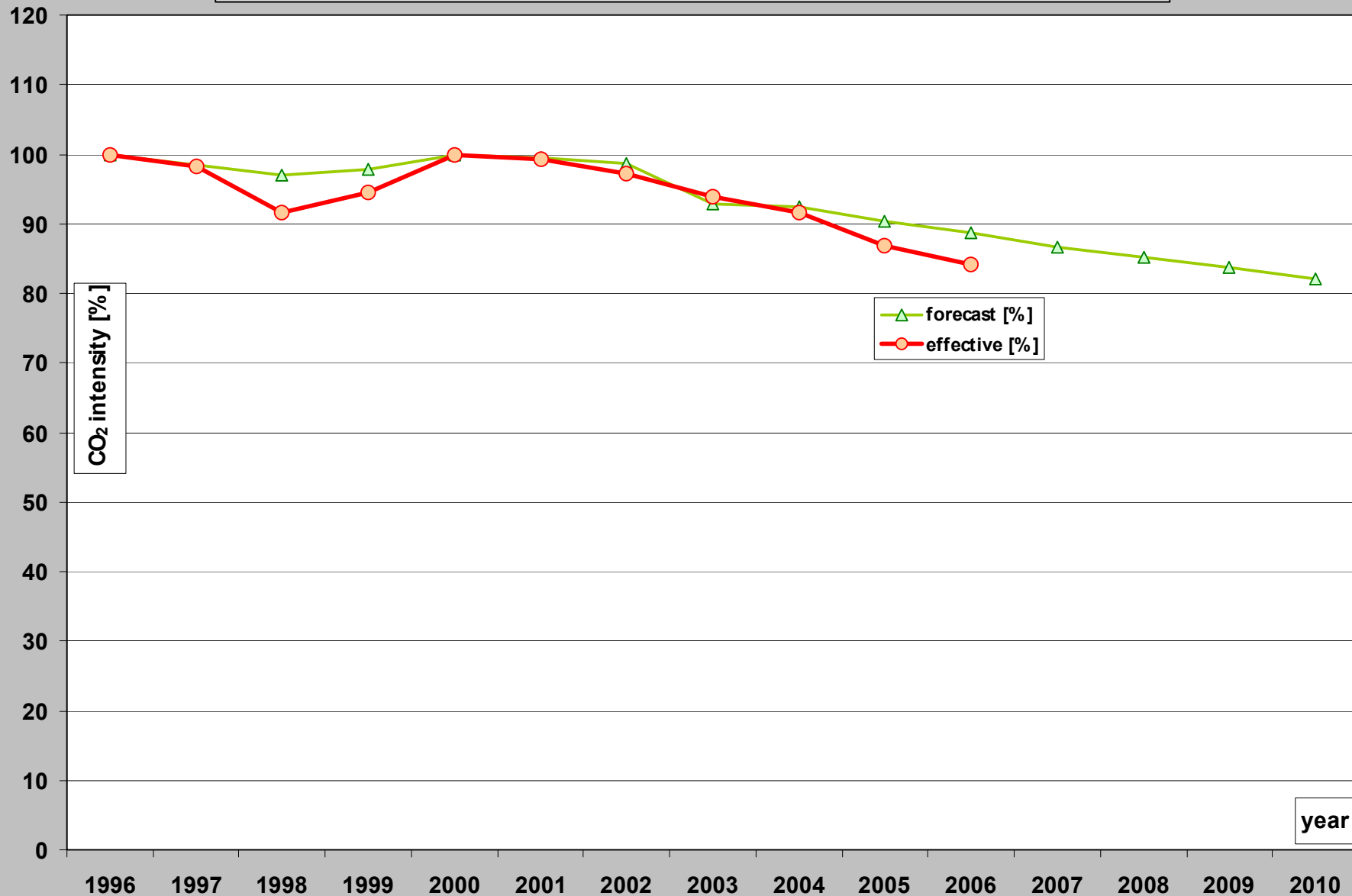
# Results II

overall energy efficiency, private sector energy agency



# Results III

overall CO<sub>2</sub> intensity, private sector energy agency



# Example I

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- ⌘ **Group with 16 member companies in Zurich**
- ⌘ **Mixed industries, trade and services**
- ⌘ **Huge money saving: ~ 300 Mio CHF in 20 yrs**
- ⌘ **“Open book meetings” thus copying of measures**
- ⌘ **Identification of common projects (e.g. improvement of efficiency of cold systems)**
- ⌘ **Group has influenced law making process**



# Example II

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## ⌘ Publication of measures on website, e.g.

- ☒ multinational (40 countries) manufacturer of packaging material
- ☒ solvents in waste air: thermal treatment plant
- ☒ improvement of absorption of solvents
  - ☒ active char coal to absorb solvent from waste air (→ clean air)
  - ☒ desorption and add solvent to partial waste air flow
  - ☒ thus higher concentration of organics
  - ☒ combustion ± without gas for backup firing
- ☒ others from same and similar sectors shall copy





# Motivation for Companies to Join

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- ⌘ **Exoneration from CO<sub>2</sub> tax – when ambitious reduction of CO<sub>2</sub> emissions achieved**
- ⌘ **Cost reduction through unknown or newly evaluated economic measures**
- ⌘ **Efficient identification and implementation of measures**
- ⌘ **Competitive advantages in the market through more efficient use of energy and resources**
- ⌘ **Reduction of electricity tariffs in certain cities**
- ⌘ **Participation in political decision making**



# Motivation for State/Cantons

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- ⌘ **Simplification of law enforcement in industry sector thus reduced requirement of resources through ‘outsourcing’**
- ⌘ **Involvement of more companies**
- ⌘ **Approach enables greater exhaustion of potentials and early results**
- ⌘ **Co-operation with the economy**



# Lessons learnt

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## ⌘ Advantages of group approach

- ☑ companies can easier be involved in mitigation process
- ☑ potentials get unblocked
- ☑ accelerated learning about measures
- ☑ companies profit
- ☑ law enforcement is eased
- ☑ needs financial support in the start-up phase

## ⌘ Complex and labour intensive, but instructive for all involved parties

