# Energy efficiency policy and Czech Republic

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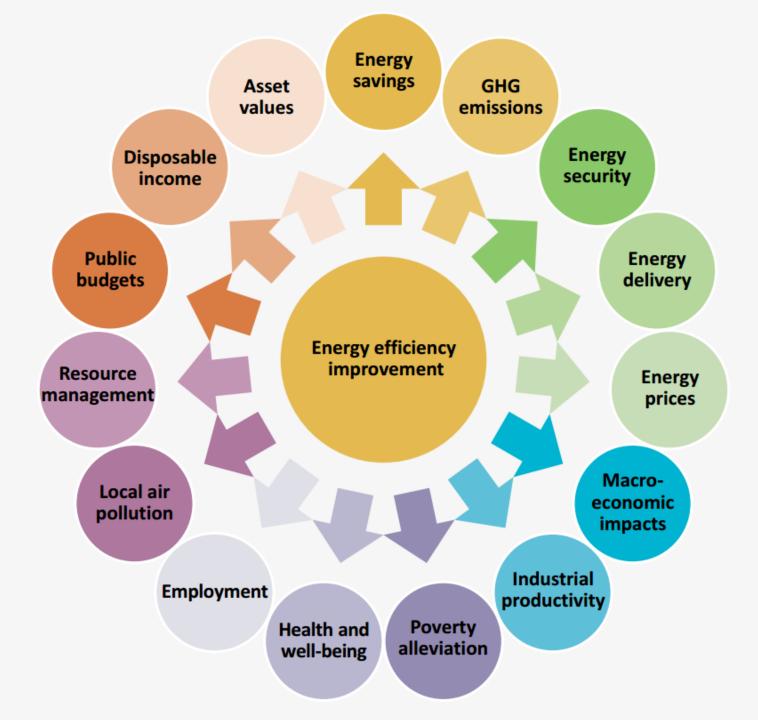
# Introductory notes



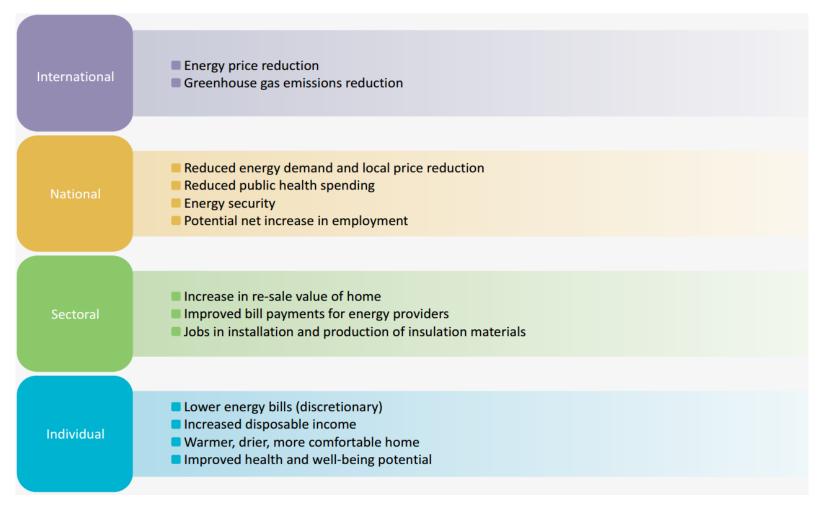
#### About us

- Independent research platform
  - Core at the Faculty of Social Studies, Masaryk University
- Research interest
  - Liberalization of energy markets
  - Energy policy-making and its enforcement
  - EU energy policy
  - Energy developments in CEE region
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# Multiple impacts of EE

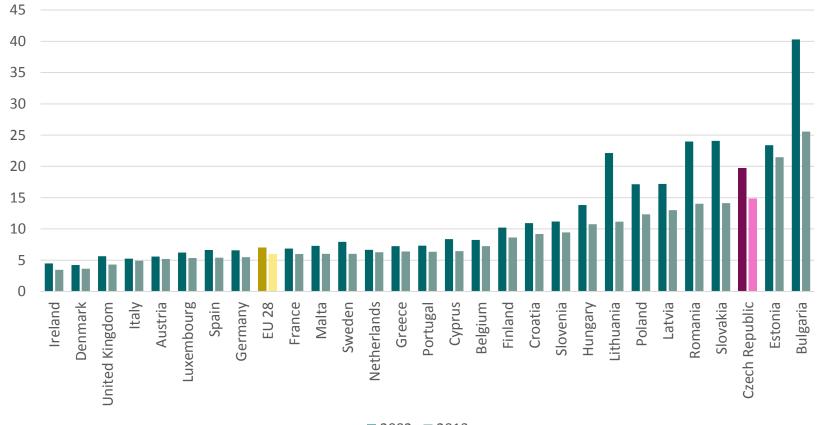




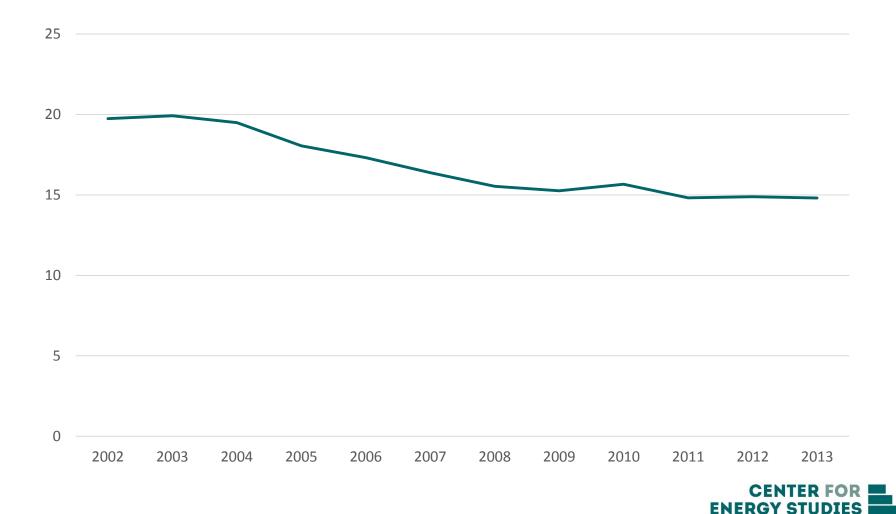
Development of energy intensity of Czech Republic



## Energy intensity EU

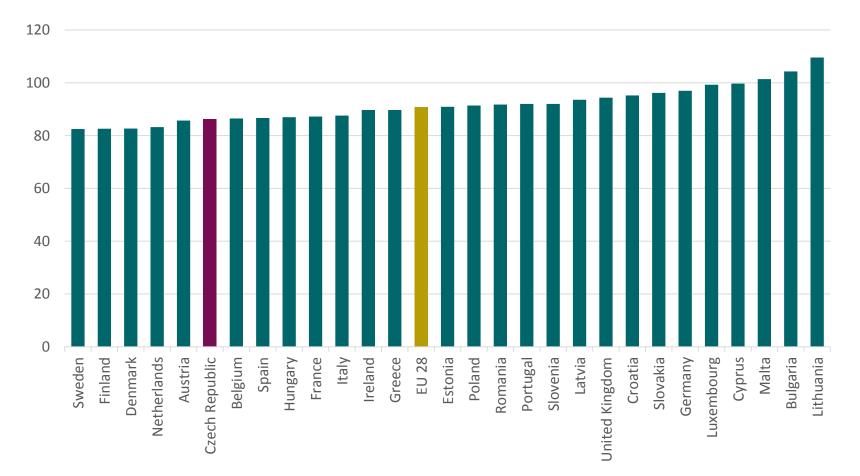


# Energy intensity CZ



Source: Eurostat

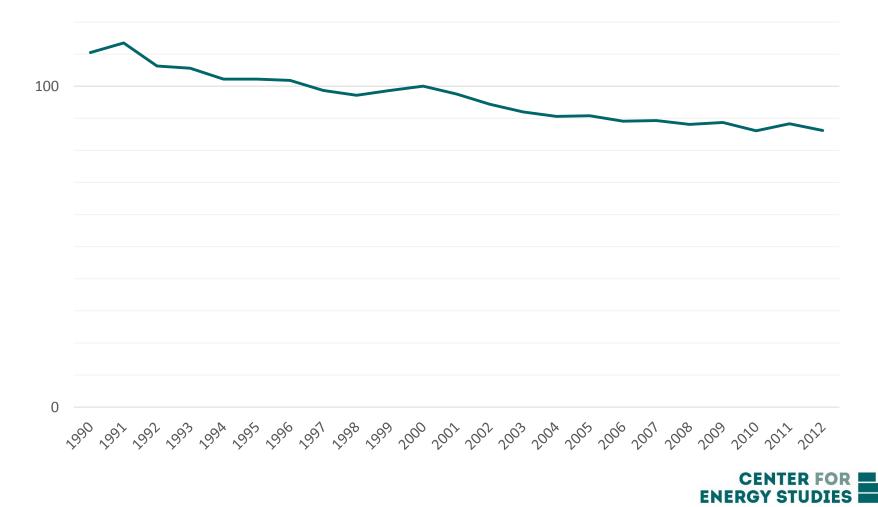
# GHG Intensity of Energy Consumption





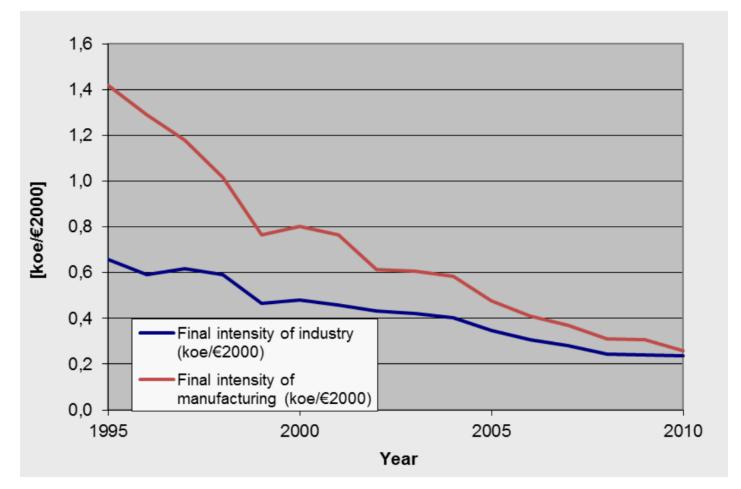
Source: Eurostat

#### CZ GHG Intensity of Energy Consumption



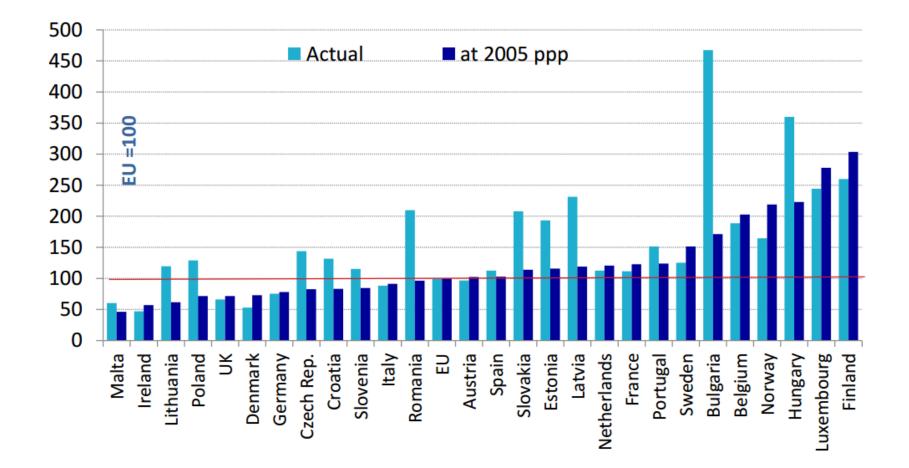
Source: Eurostat

## Energy intensity in industry



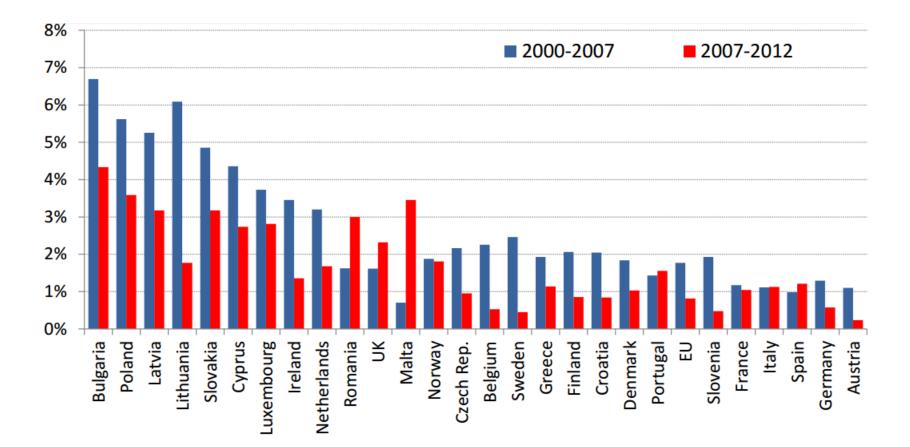


#### Energy intensities in manufacturing

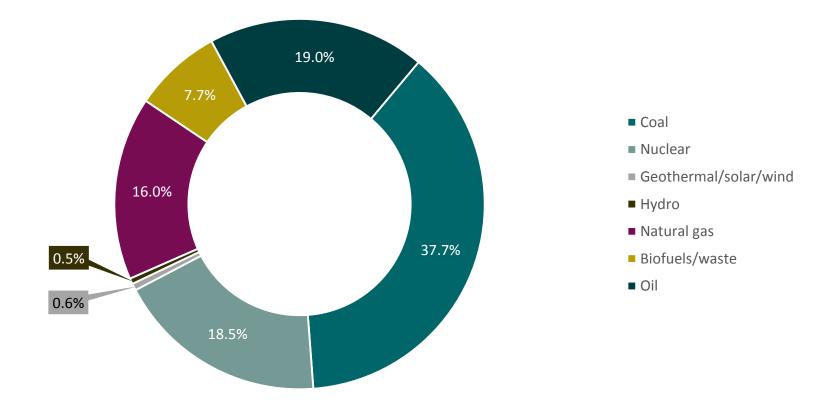




## Efficiency trends in manufacturing

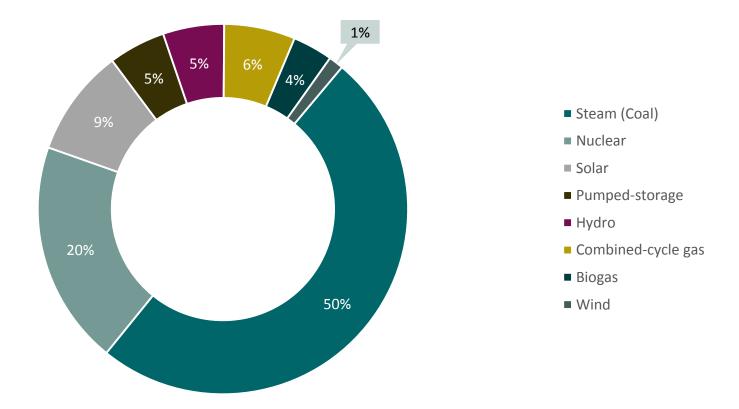


# Total Primary Energy Supply





## Electricity gen. – installed capacity





# EU regulation in EE

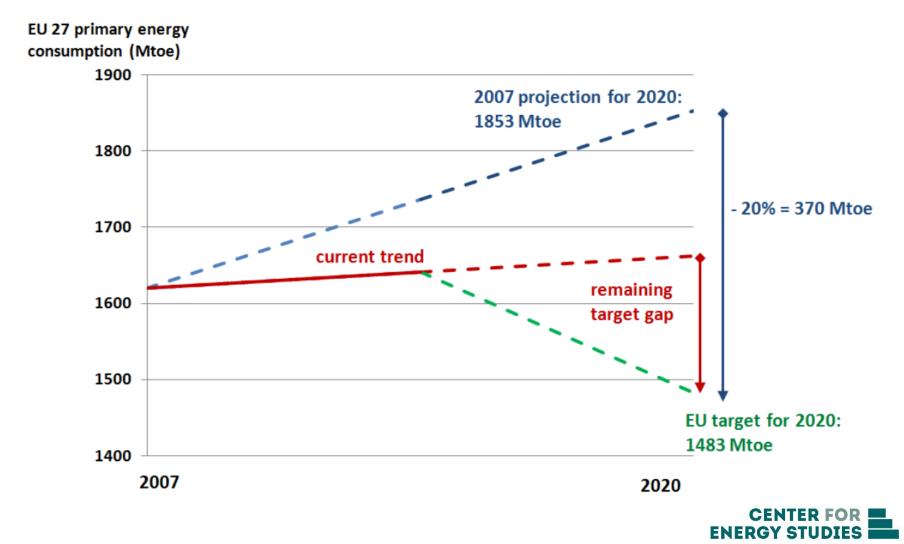


#### European goals

- Transition to the low carbon emission economy
- Climate and energy goals
  - 20% lower GHG emmissions
  - 20% lower energy consumption
  - 20% energy produced by renewables



#### EE 2020 goal



#### Old EU directives

- 2006/32/EU Energy Services Directive
  - Commitments not on track
  - No way how to achieve desired savings
- 2004/8/EU Cogeneration directive



# Current EU legislation

- 2010/31/EU Energy Performance of Buildings Directive
- 2010/30/EU Energy Labelling Directive
- 2009/125/EU Ecodesign Directive

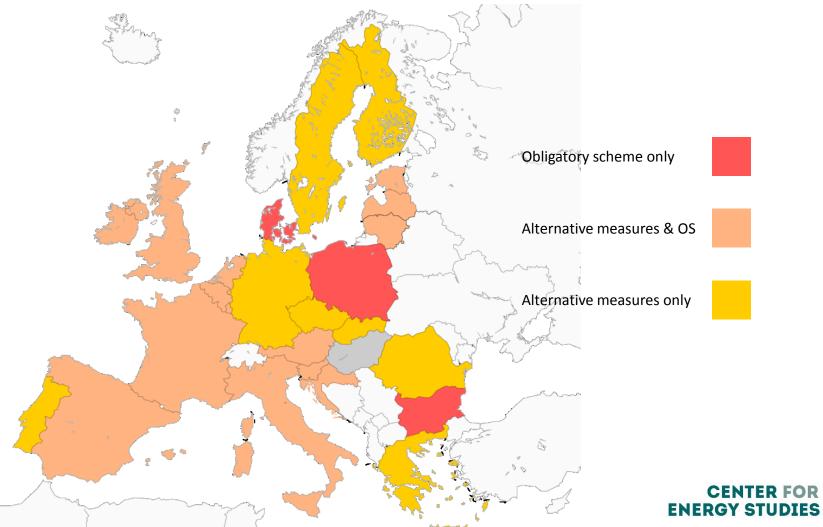


# Current EU legislation

- 2012/27/EU Energy Efficiency Directive
  - Public sector-driven energy savings
  - Obligatory vs. Alternative scheme
  - Energy audits for large enterprises
  - Replaces ESD and Cogeneration Directive



#### Obligatory vs. alternative schemes



Source: Author, Enspol – Energy Saving Policies and Energy Efficiency Obligation Scheme

# Czech implementation of 2012/27/EU EED



# Czech implementation of EED

- Article 7
  - Alternative scheme
    - End-user price impact
    - Existing programmes
    - Financing schemes and options
    - State oversight
  - Political coordination to achieve goals
  - If savings equal, countries allowed to use alternative schemes or combine



# Czech implementation of EED

- Article 3
  - Set national estimates of energy savings
- Article 4
  - Building refurbishment
  - Great potential savings
- Article 5
  - Exemplary role of buildings of public institutions
  - 3% of overall floor area to be refurbished or Alternative scheme
- Article 18
  - Energy services

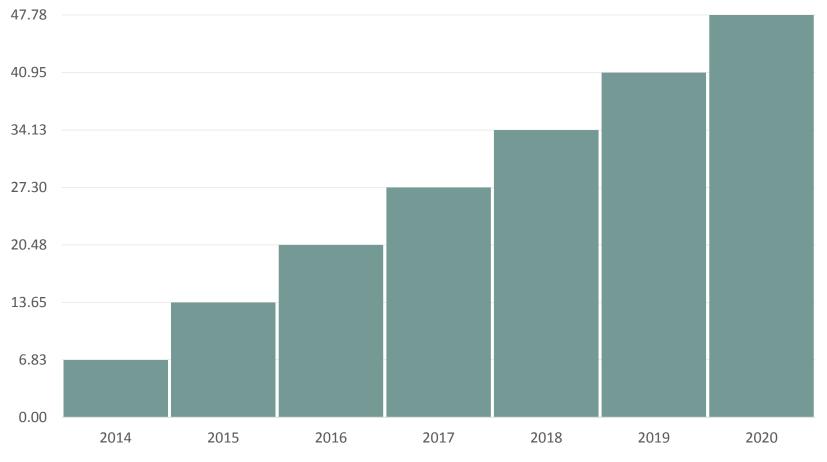


## National action plan on EE 2014

- Adopted based on State Energy Policy Update 2012
- Goals based on Article 3 of ESD
  - 47,78 PJ (13,29 TWh) of energy savings in 2020
  - Cummulative savings of 191,10 PJ
  - Goal of 1660 PJ primary energy consumption (1020 PJ without non-energetic use)
- Energy savings included in various government documents
- Revision in 2017



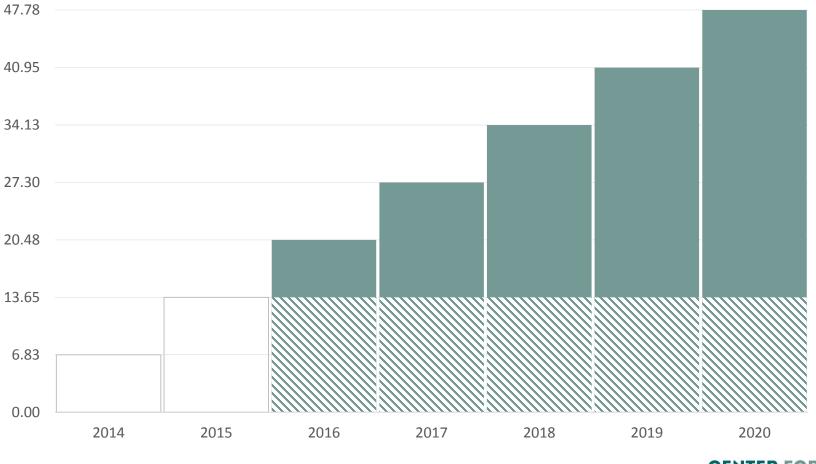
#### Czech target in savings





Source: National Action Plan on Energy Efficiency

#### Czech target not on track





# Particular goals

Programme	Savings (PJ)	Savings (%)
Ministry of Trade and Industry	20	41.32
Ministry of Environment	5	10.33
Ministry of Regional Development	9	18.6
Green Savings	14,3	29.55
Other programmes	0.1	0.21



# State Energy Policy Update 2015

- Up to 2040
- EE one of 4 priority goals
- 2 basic assumptions
  - Decrease of availability of domestic primary sources of energy
  - Industry persists as economic pillar
- EE low-hanging fruit collected by 2020, more complicated thereafter
- Cross-domain goals in EE
  - Implement NAPEE targets
  - Maximize subsidy utilization at cost-efficient manner

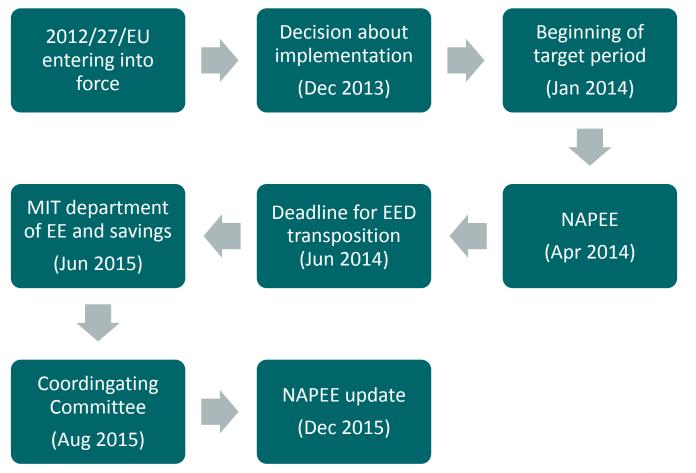


#### Risks of alternative scheme

- Savings targets ambitious
- Risks
  - Whole amount of finances (expected 90 billion CZK 3.32 billion EUR) will not be available or will run out without achieving savings
  - Question of additionality in subsidized investments and taken measures
  - Insufficient motivation of applicants to participate in programmes
  - Programmes and subsidy schemes not open on time



#### EED transposition timeline





# Who's in charge?



#### Main actors

- Ministry of Industry and Trade (MIT)
  - Department of Energy Efficiency and Savings
- Ministry of Environment
- Ministry of Finance
- Ministry of Regional Development
- Ministry of Transport
- Reigonal administrations
- Many other



#### Coordination effort

- Coordination necessary in order to prevent conflicts among various measures
  - Complementarity
  - Synergic effects
- Ministry of Industry and Trade responsible
- Department of EE at MIT established only mid-2015



#### Coordination committee

- Multiple actors
  - MIT; MinEnv; MinRegDev; MinFin
  - Respective funds
  - Office of the Government
  - Czech Statistical Office
  - Prague
  - 8 organizations representing various professions
- MIT responsible for methodology of the measurement of savings

