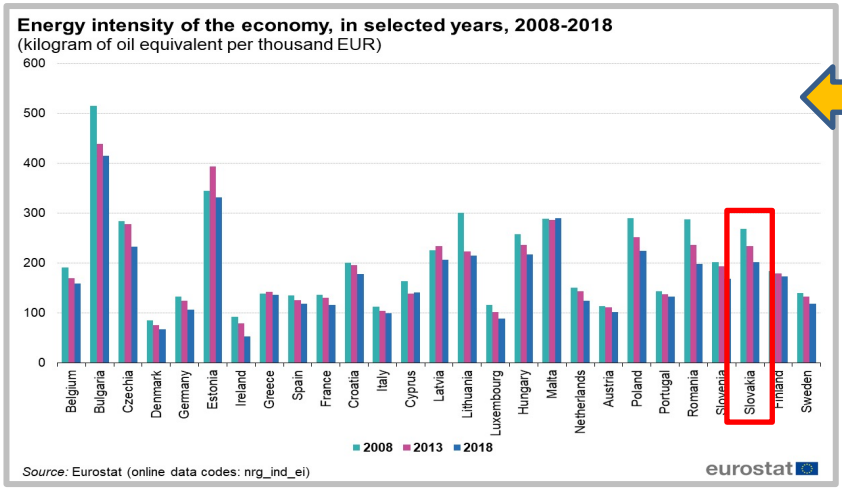
ENERGY EFFICIENCY IN SLOVAK REPUBLIC – KEY FACTS AND INDICATORS

Peter Drotár
Ministry of economy of the Slovak republic
OCTOBER 2020

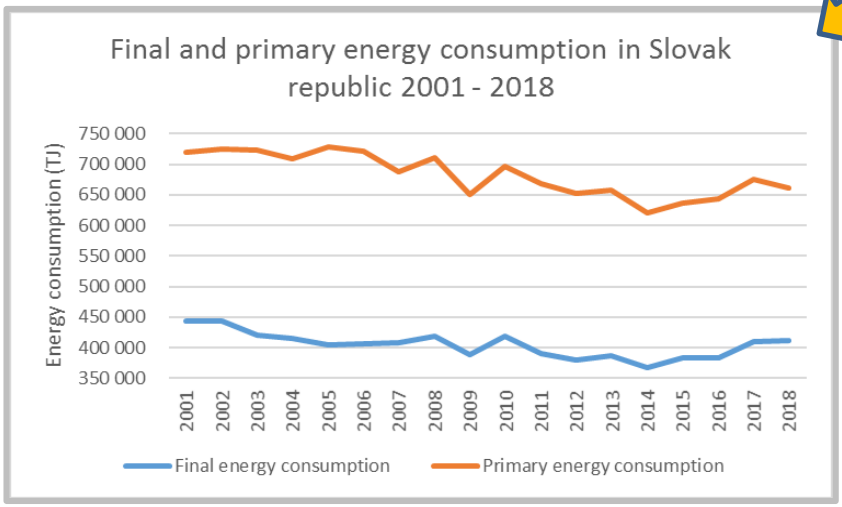
BASIC OVERVIEW

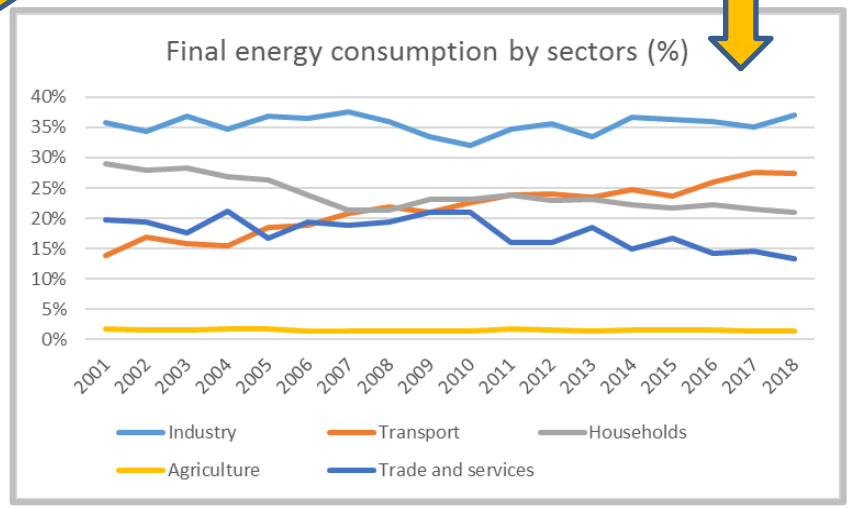


- Slovak republic is a country with energy intensive industry
- It has one of the highest decrease of energy intensity among EU member states. Even in spite of this, it is still above average of EU

Between 2001 – 2014 Slovak republic, as one of only 8 EU members states, has decreased its final energy consumption by more than 4 % and primary energy consumption by more than 8%

- The highest final energy consumption is in Industry sector followed by buildings (households + trade and services)
- Rapid increase on energy consumption in transport





ENERGY EFFICIENCY TARGETS

Art. 3 EED

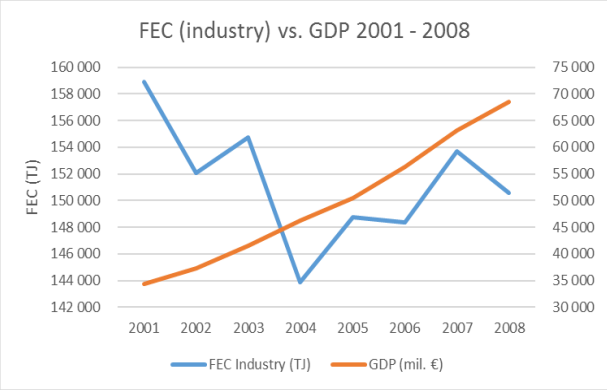
	2020	Actual status	2030 (realistic scenario)	2030 (ambitious scenario)
Primary energy consumption (GWh)	188 666	102%	187 863	182 623
Final energy consumption (GWh)	120 833	92%	121 448	119 457

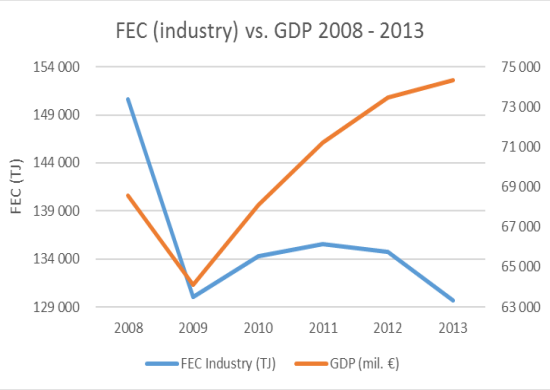
Art. 5 EED

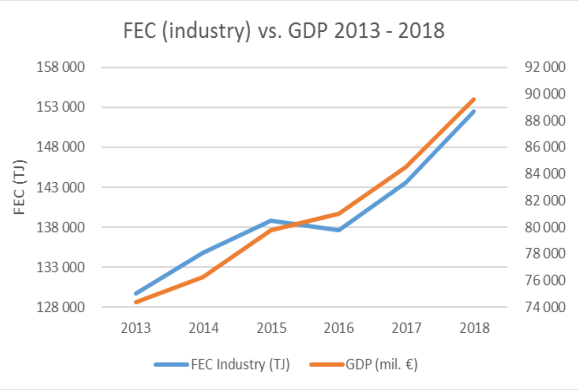
Art. 7 EED

	2020	Actual status	2030
Energy savings in public buildings (GWh)	52,17/y	Already met	TBD in NECP
Energy savings on final energy consumption (GWh)	948,7/y	Already met	870,5 GWh/y

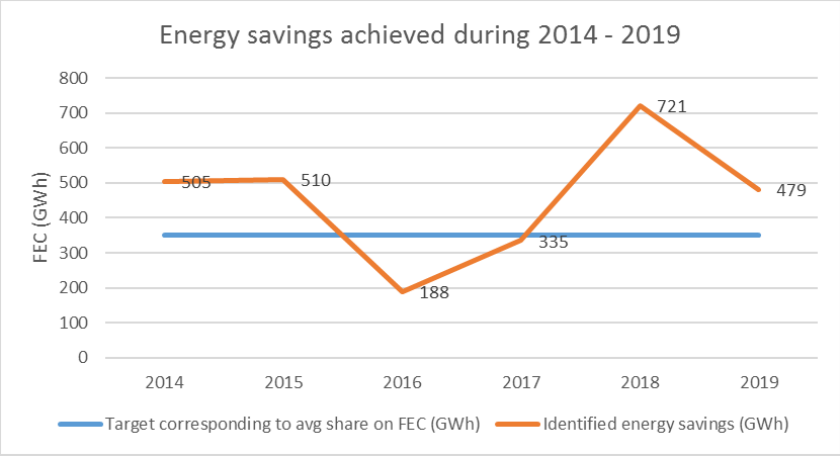
INDUSTRY







1993 – 2002: Period of Slovak economy transformation 2002: Change of the economy approach from „parametric“ to „paradigmatic“ (New government) 2004 – crisis: linear growth of GDP and FEC	Crisis - 2013: crisis period 2009: „Fisrt bottom“ 2012 – 2013: „second bottom“. GDP positive trend due to favorable export	2014 – 2018: economy post crisis growth Linear growth of GDP and FEC

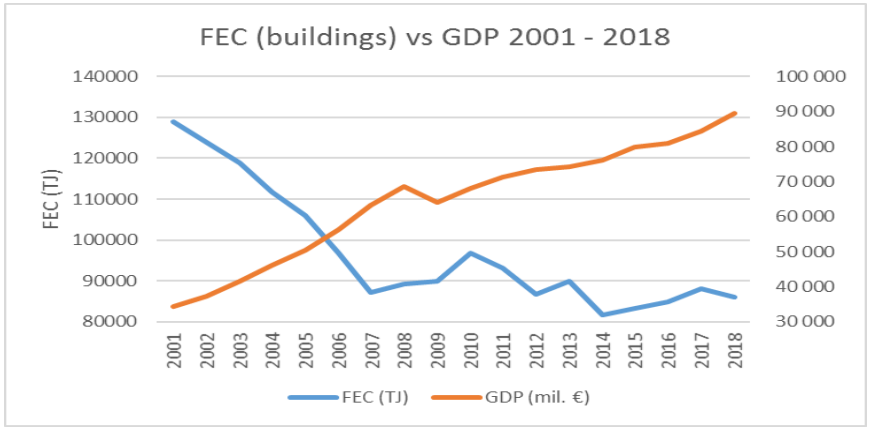


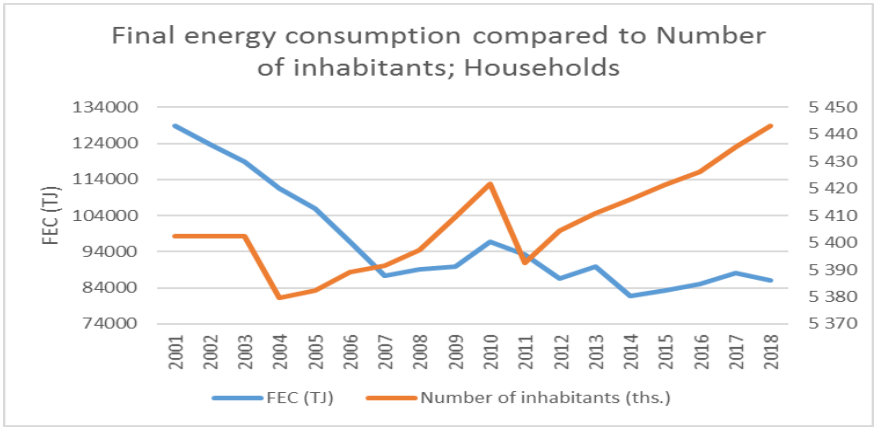
KEY FINDING: **In the history of independent Slovak republic, every time when there was no economic transformation or crisis period, there was a linear correlation between GDP and FEC**

Energy savings in slovak industry

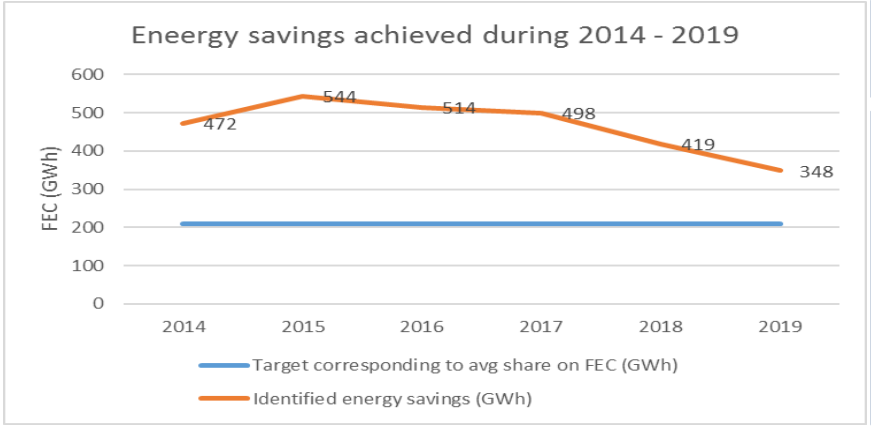
- Along with buildings sector main contributor to art. 7
- Key measure: Energy savings voluntary agreements (ESVA); more than 90%
- ESVA signed between Ministry of economy of the Slovak republic and key players from industry
- ESVA is the most effective measure out of all notified measures in terms of public investment / energy saving achieved
- Other measures: Energy audits, State and ESIF support based on individual calls

HOUSEHOLDS





- 1996 – 2007: Massive renovation wave of residential and family houses mainly due to support from state. In 1996 State fund for housing development was established
- Slow down was not caused by crisis, however the crisis has contributed to it significantly especially in 2010
- Between 2010 and 2014 the pace of renovation was, in average, simmilar to pace before 2007
- After 2014, a pace of renovation slowed down mainly due to a limited energy savings potential

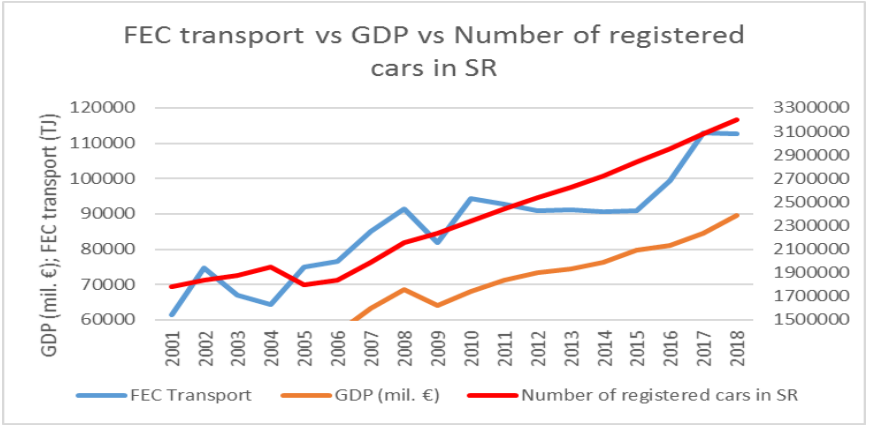


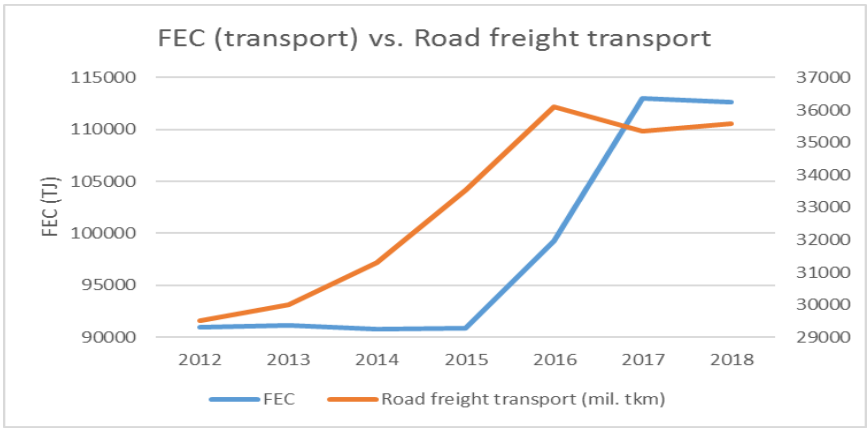
KEY FINDING: **The trend of energy savings achieved in households demonstrates long term systematic approach from side of state**

Energy savings in slovak households

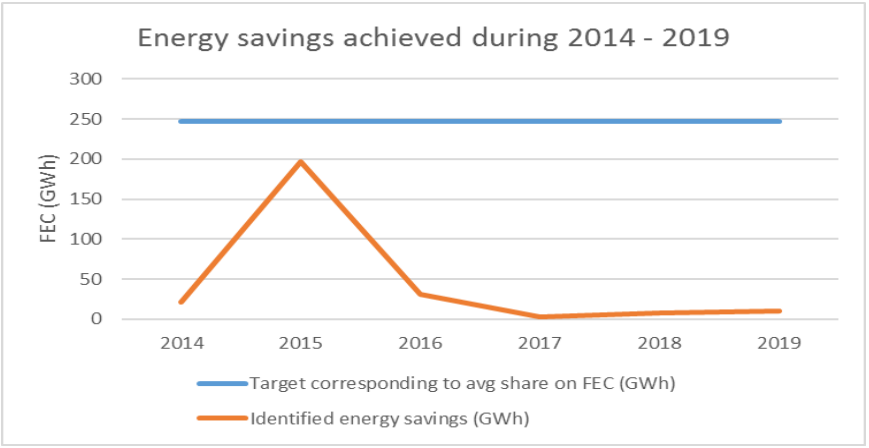
- Slovakia has one of the highest rate of renovated residential buildings in EU (Block of flats – 64,7%; family houses 49%)
- High ratio of renovated residential buildings is mainly due to ownership. Based on statistics, almost 90% of real estates are owned by their residents.
- Big wave of complex renovation (e.g. as before 2007) is unlikely, since such renovation would bring only small additional savings but it would require much higher investment costs

TRANSPORT





- Number of registered cars in SR has a linear growth since it has been monitored. Number of registered cars in 2018 is higher by **79%** compared to 2001. FEC in industry is higher by **83%**
- Growth of number of registered cars in SR is higher by 4% than GDP growth
- Direct correlation between FEC in transport and Road freight transport. FEC in transport has increased by 24% comp. to 2012, road freight transport has increased by 21%

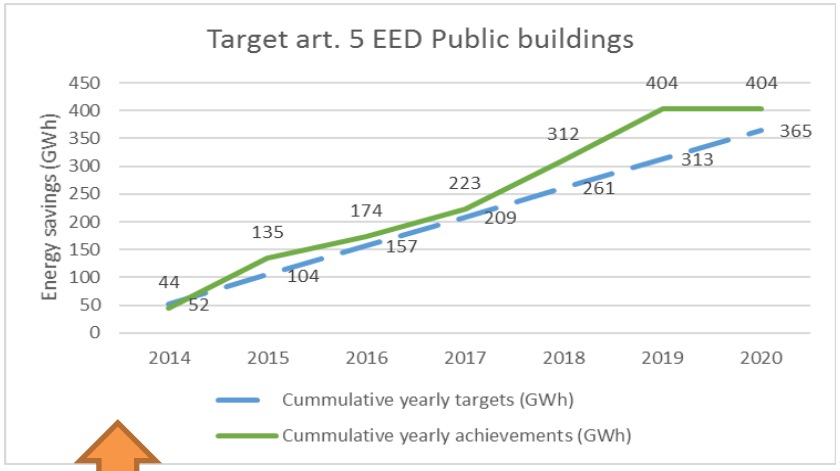


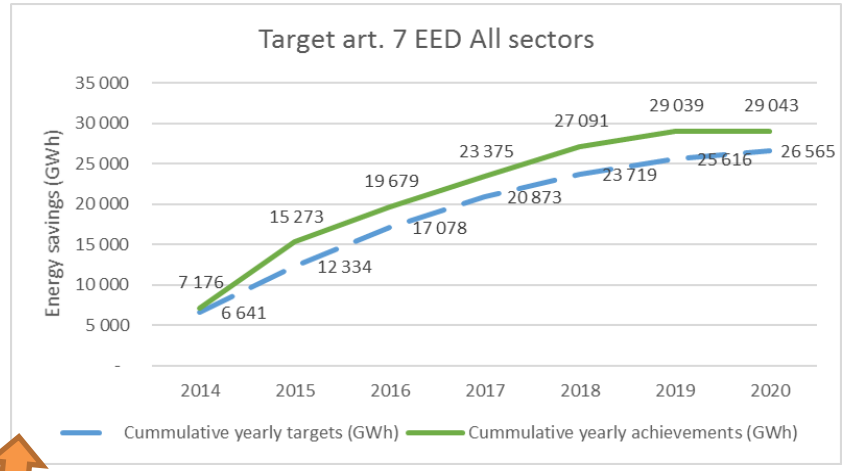
KEY FINDING: **The trend of energy savings achieved in transport shows, this sector is very hard to be managed by the state from point of view of energy savings, since the crucial challange that is necessary to focus on, is consumption. Contribution of alternative fuels is negligible.**

Energy savings in slovak transport

- Contribution of alternative fuels to the target related to final energy consumption of art. 3 EED varies from 0,08 to 0,15%. Contribution to primary energy consumption varies based on vehicle´s type
- Supporting mechanisms must be based on technologicaly neutral approach, taking into consideration also relevant indicators such as FEC, PEC, CO2 emmisisons, SOx, NOx, PM 2,5, etc...

ENERGY SAVINGS BY ART. 5 and 7 of EED



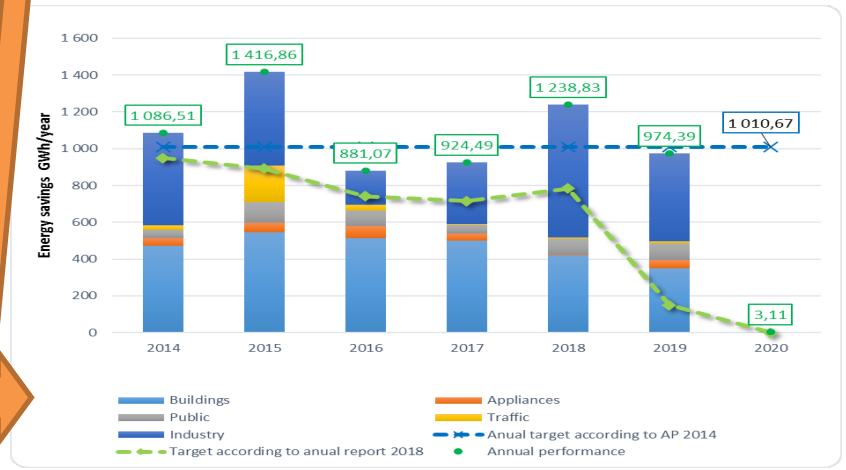


Art. 5: Public buildings

- Yearly target value was set on 52,17 GWh a year
- The target value was calculated and notified through alternative approach of EED
- Target already met

Art. 7:All sectors

- Yearly target value was set on 948,75 GWh a year
- Target already met



LEGISLATION FRAMEWORK

Central body of state administration responsible for energy efficiency:
Ministry of economy of the Slovak republic

Legislation:

- Law no. 321/2014 on energy efficiency
- Law no. 314/2012 on regular control of heating systems and air conditioning systems
- Law no. 555/2005 on energy performance of buildings (Ministry of transport and construction of the Slovak republic)

Strategic and reporting documents:

- Energy efficiency action plans (2007, 2011, 2014, 2017)
- Integrated national energy climate plan
- Yearly reports on energy efficiency (since 2012)

Thank you for your attention