

9<sup>th</sup>  
Evaluation  
Conference  
in Prague

# **Cohesion Policy:**

Common Path to Results and Impacts

**Evaluation of the impacts of EU Cohesion  
Policy on the preservation and  
protection of environment and efficient  
use of resources**

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EVALUATION  
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## Purpose of the presentation

- Approach to evaluation of environmental measures using a quantitative design – „Cross Regional Sequential Difference in Differences“ method
- Strengths and limits of the design in the context of investments into air quality, water supply infrastructure and waste management



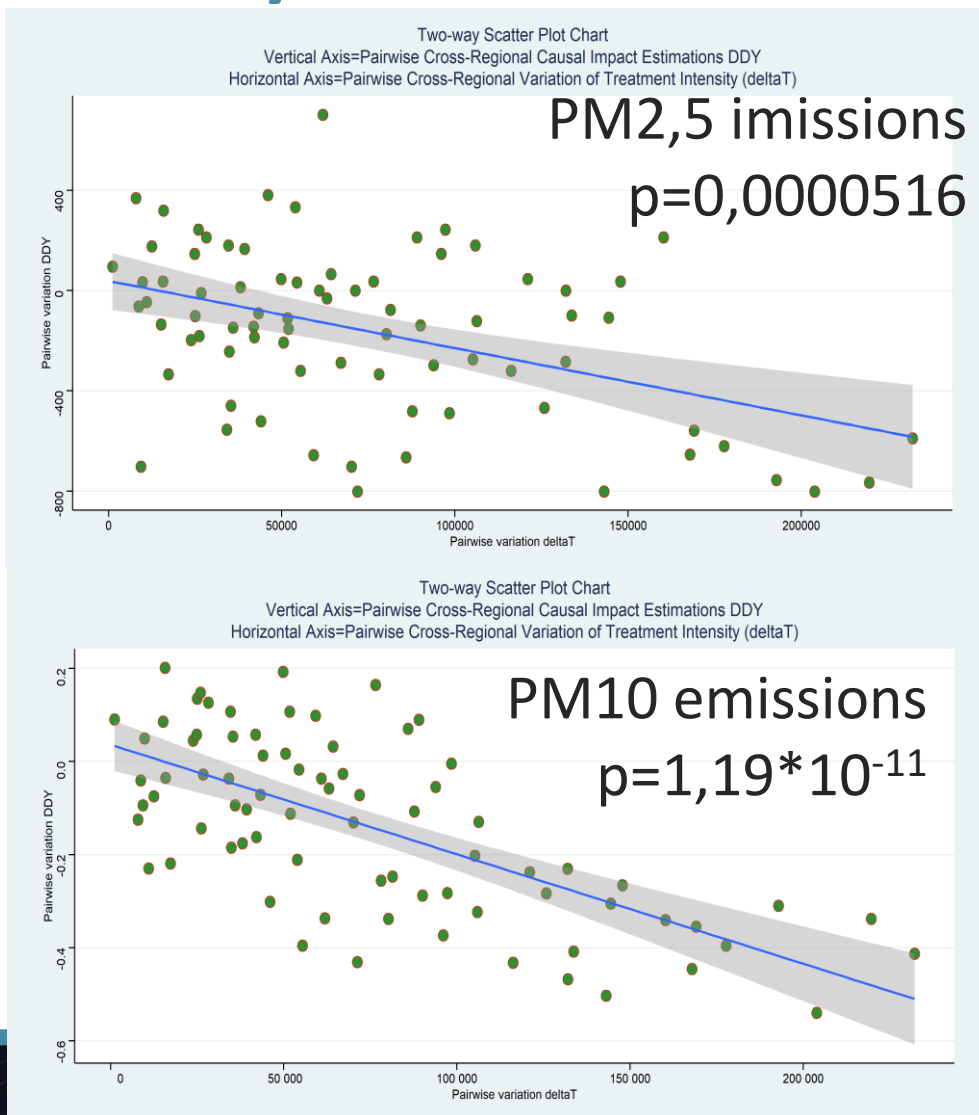
## Purpose of the evaluation

- Implemented within the Thematic Outcome Evaluation of the Partnership Agreement 2014-20
- „To quantify, interpret and evaluate outcomes and impacts of ESI funds at national level with regard to goals formulated in the Partnership Agreement“
- i.e. identify changes that can be attributed to ESI support and are in line with the PA



# Reducing emissions of pollutants into the air

## Analysis



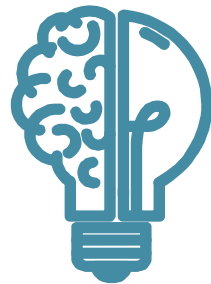
- Investments into industrial technologies as well as granting schemes to replace old heat sources in residential homes
- Dependent variables:
  - » Population living in areas where the limit for annual average PM2.5 immission concentration was exceeded
  - » Total emissions of PM10 from industry and agriculture
  - » Etc.
- Total support ca. 12,6 bn. CZK (ca. 500 mil. EUR)

# Reducing emissions of pollutants into the air

## Interpretation



- Analysis suggests that the support from EU funds was absolutely crucial
- However, important context of support – simultaneously new norms tightening the limits for emissions of harmful substances
- Confluence of two important factors, may lead to overestimation of the impact of EU funds (support was an important factor, but not the most decisive one)

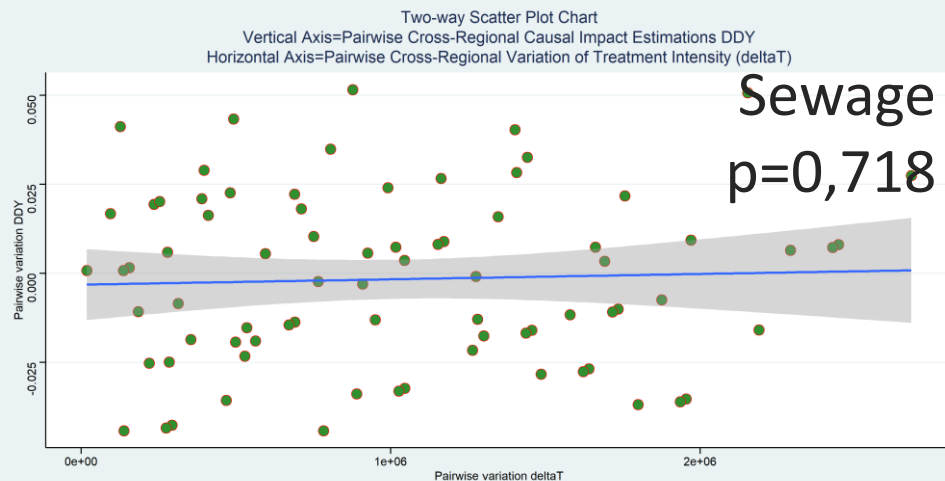
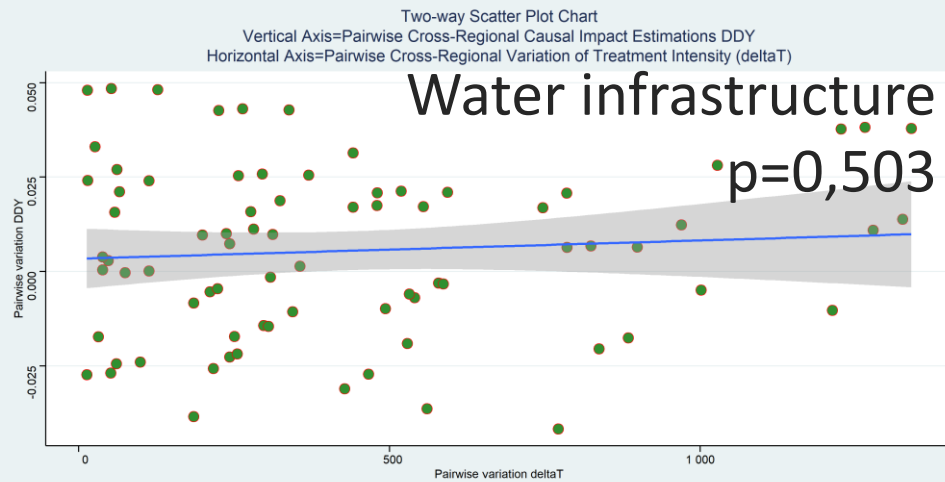


### Lessons learned:

Importance of detailed analysis of the context of support, taking into account key external factors



# Development of water management and sewage infrastructure: Analysis

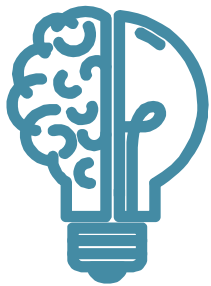


- A total of 21,139 people will have been newly connected to the water supply due to EU funds support
- Approx. 2,000 km of sewer lines have been built.
- Total support ca. 13,3 bn. CZK (ca. 530 mil. EUR)
- Dependent variables:
  - » Share of population connected to water supply infrastructure
  - » Share of population connected to sewage system with a water treatment plant

# Development of water management and sewage infrastructure: Interpretation



- Analysis provides no answer → support is not a statistically significant factor? But what about 21.139 newly connected people?
- EU funds provided ca. 13 – 15 % of total investments into water supply and sewage infrastructure, why is there no effect to be seen?

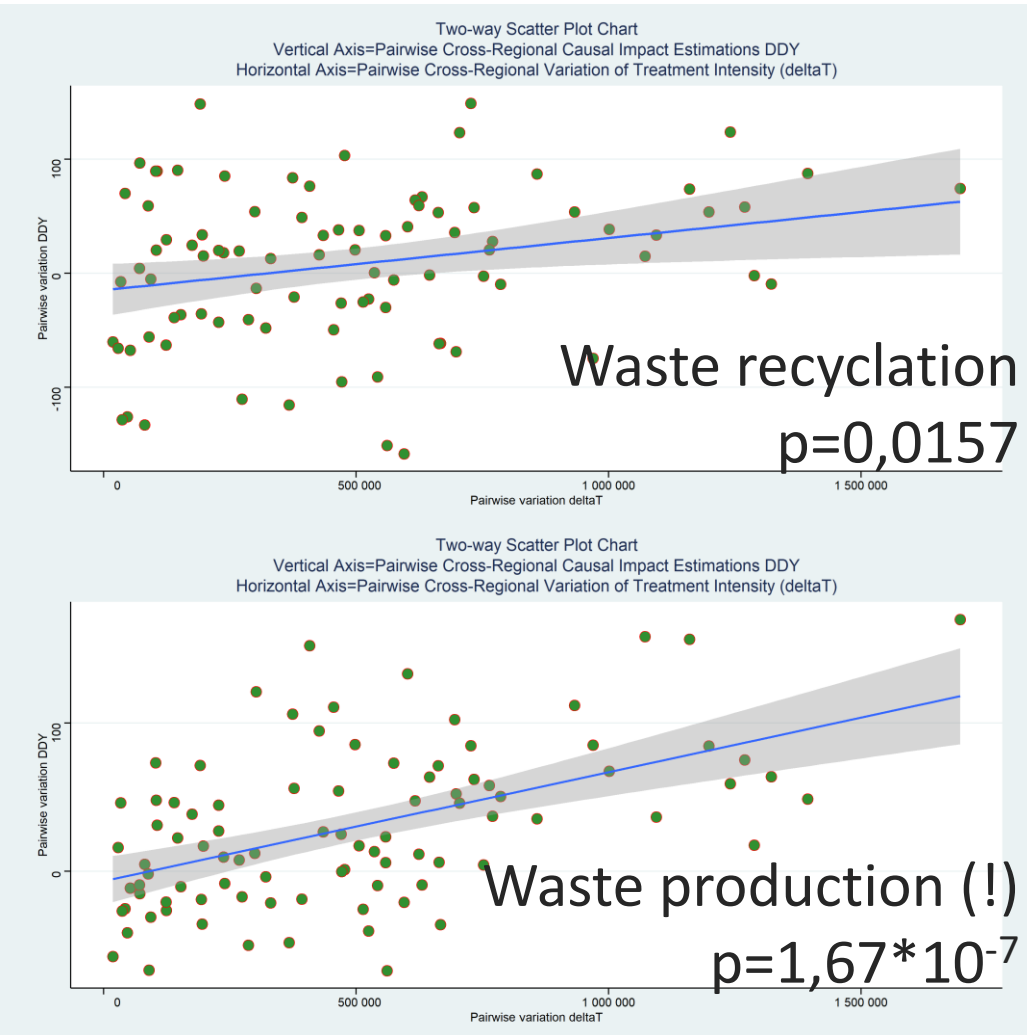


## Lessons learned:

Quantitative methods have limits and preconditions for their application. If not met, the results can be useless or even misleading

- » Small relative changes in the indicators
- » Low variability in regional trends
- » More or less even distribution of support
- » Results actually show that there was a lack of targeting of the support to the most in-need regions (but that was not our question”)

# Waste management: Analysis



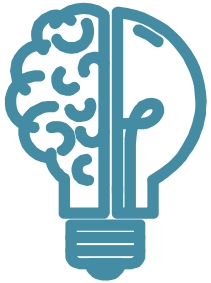
- Direct effects especially on municipal waste sorting / material utilization and composting
- New capacity of the waste sorting system ca. 229 456 t / year
- Also support provided to prevention of waste generation (!)
- Total support ca. 13,3 bn. CZK (ca. 530 mil. EUR)
- Dependent variables:
  - » *over 20 variables tested*
  - » Total amount of municipal waste that was recycled / materially utilized
  - » Total amount of produced municipal waste



# Waste management: Interpretation



- Positive impact on recycling / material utilization of municipal waste – in line with intervention, up to 70% of increase explained by the support
- BUT strong statistical correlation with total production of municipal waste?! Support from EU funds leads to an **increase** in waste production?



## Lessons learned:

Quantitative designs must be backed by profound **qualitative**

**data collection.** Otherwise they may lead to completely wrong and nonsensical conclusions.

- In reality a **positive effect**: due to an increase in availability of waste sorting infrastructure (due to EU funds support) leads to higher discipline of citizens in waste sorting, including waste that would have otherwise been dealt with outside of the waste management system (burning, illegal dumps, etc.)



# Thank you!

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