

## TRB SESSION AT I-NUF METRANS

### CASE STUDY OF RESEARCHER-STAKEHOLDER COLLABORATION

# *Quiet off-peak deliveries in urban areas*

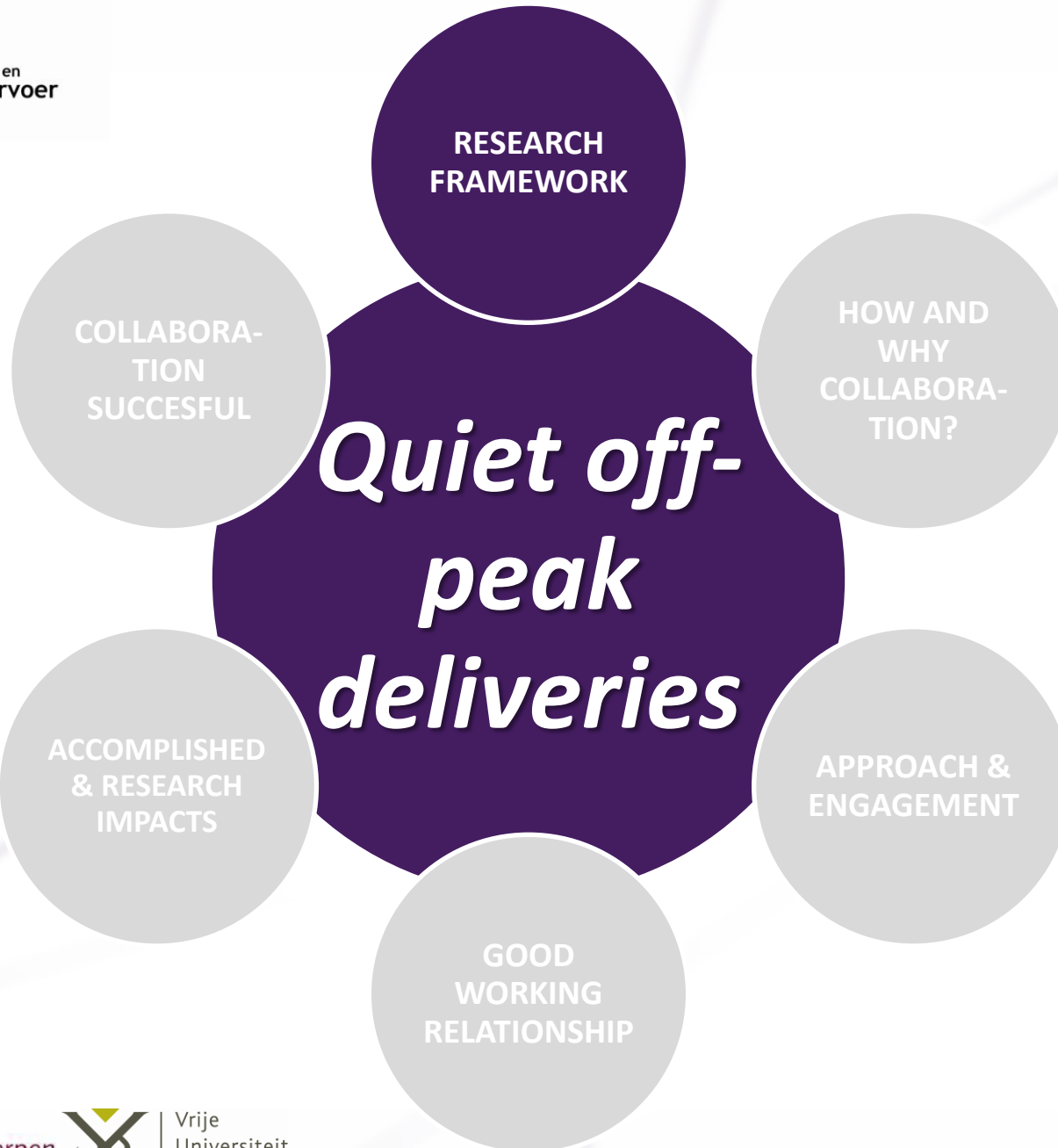
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*Dpt. Transport & Regional Economics*

*University of Antwerp*







# Research Framework



## Faculty of APPLIED ECONOMICS



Policy recommendations for the  
**FLEMISH GOVERNMENT**





# How and why

2008

*Research Center was appointed by the Flemish government to list innovative trends/needs concerning urban logistics for the **Flanders Logistics actionplan**.*

## Expert meeting

With 40 participants

- 
- ➔ Ranked first: off-peak (night) deliveries in urban areas
  - ➔ Start academic policy research with research question: “*Are quiet off-peak deliveries (nighttime) an option in urban areas in Flanders (Belgium)?*”

# How and why

## 2009: Desk & field research

- Pilots in Barcelona
- Research of Jose Holguin-Veras
- ...

***But what about noise problems during off-peak/night deliveries?***

**→ PIEK project** in The Netherlands

- Started in 2000 → focus on retail/supermarkets
- Concentrate on reducing noise → **65 d(B)A**  
→ **Certification system** for silent equipment



## 2010: Academic policy note / recommendation

➔ *Towards Flemish Government to start pilot test based on Dutch PIEK project due to:*

- Positive results
- Noise & technology

➔ In Flanders: extra focus area: **communication with stakeholders**

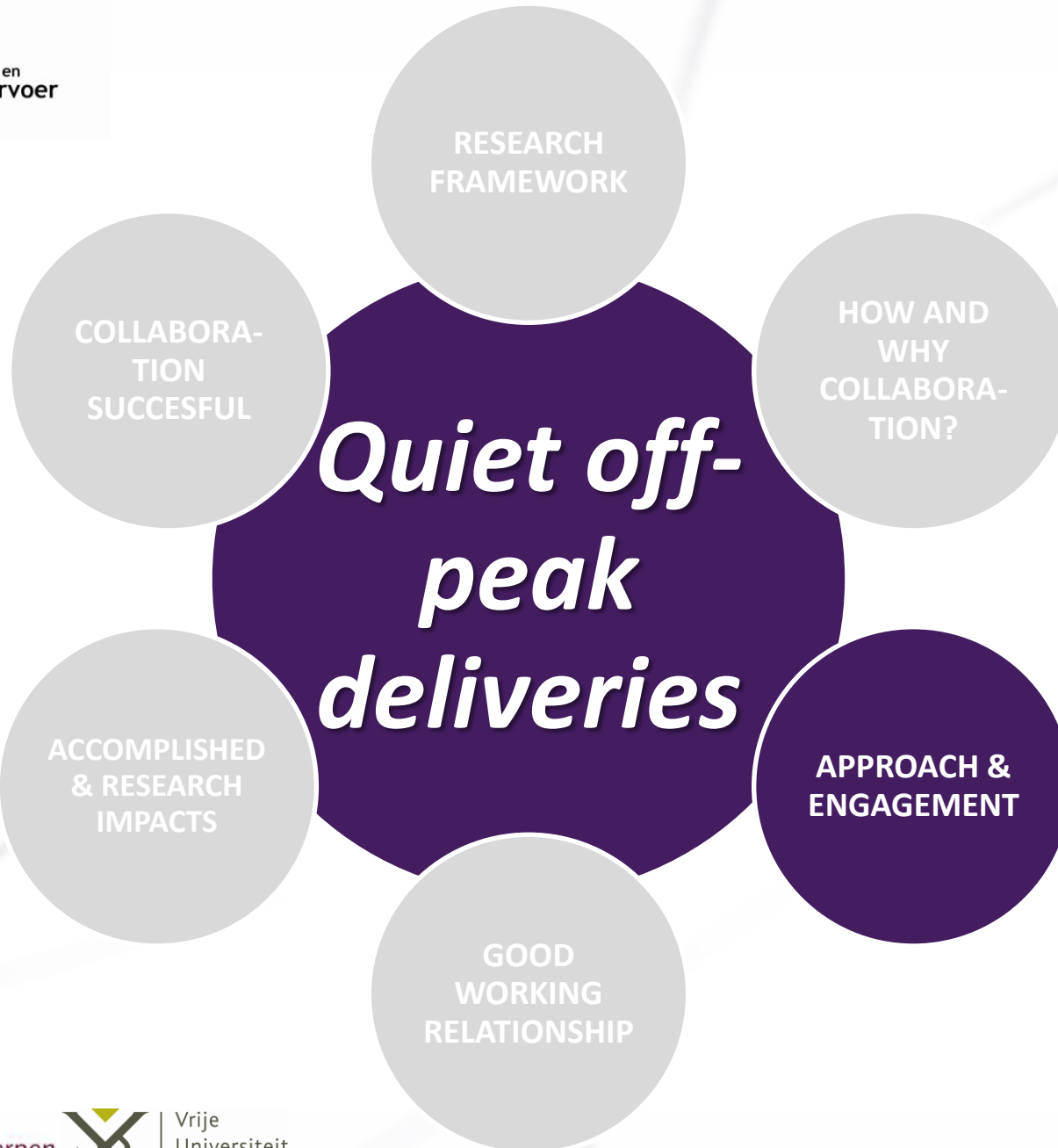
➔ **Important: Collaboration between research, policy & practitioners**

➔ **Decision by the government: start up pilot (6 months testing)**

➔ **Start consultation phase (researchers)**

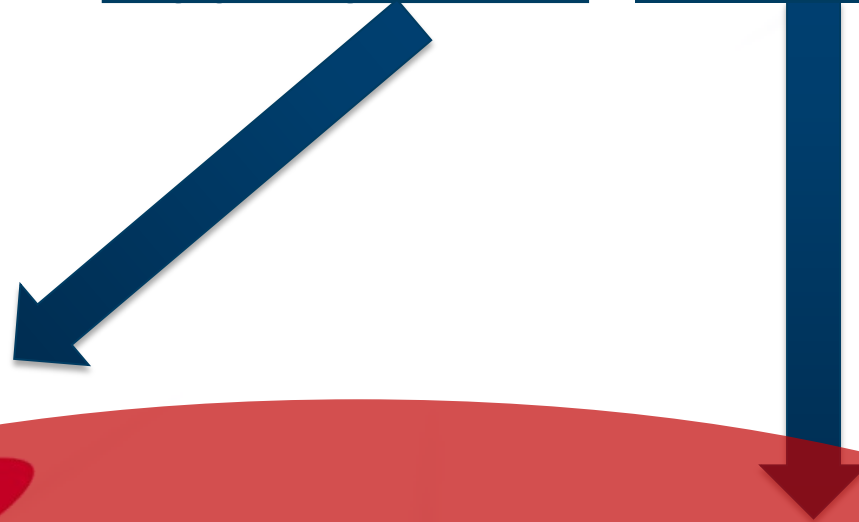
- **Practitioners**
- **Policy**





# Approach & engagement

Consultation of city policy makers + industry/pract.



**MILESTONE**

*for commerce and services*

Three small images are positioned at the bottom of the red oval: a tree on the left, two hands in the center, and a Euro symbol on the right.

## Partners: STEERING GROUP

Government/  
public entities



Associations



Cities  
(9)



Retailers  
(2 → 16 shops)



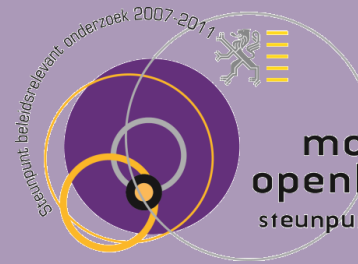
# *Approach & engagement*

## 2011

### Daily management



### Scientific controle and coordination



mobilitéit en  
openbare werken  
steunpunt goederenstromen



## Output



- **Communication (Policy)**

- ✓ Informing neighbours, city councils & nationwide
- ✓ “Hotline 24/7”



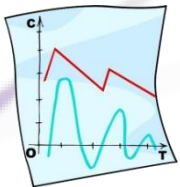
- **Noise & Emissions (Policy + practitioners)**

- ➔ Noise measuring: 4 independent measurements per shop
- ➔ May – Novembre



- **Economics (practitioners)**

- ➔ Calculation of savings (Academic scenarios)
  - ✓ *Fuel*
  - ✓ *Efficiency labour*



- **Data (researchers, practitioners & policy)**

# Approach & engagement



# *Approach & engagement*





# *Approach & engagement*





# Approach & engagement



## Vlaanderen start proef met stil beleven van winkels

Vlaams minister van Mobiliteit Hilde Crovits heeft het startbeleg gegeven van een proefproject om warenhuizen in stedelijke centra stiller en duurzamer te belevieren. Het is de bedoeling om de impact van laden en lossen in te perken.

**A**ls de provincie met wil belevieren elektrisch pallettrucks, elektrische vrachtwagens op de laad- en loslocaties, technische oplossingen aan de laadlocaties.

Maar ook de chauffeurs en het management moet worden geïntegreerd. "We gaan er mensen voor, maar er moeten ook mensen zijn die de vrachtwagen kunnen bedienen, van de vrachtwagen tot de deur, van de vrachtwagen tot de deur, van de vrachtwagen tot de deur."

Van de distributoren wordt niet alleen verwacht dat ze hun vrachtwagens, opgeleverd, laad- en lossen, maar ook dat ze hun chauffeurs aanpakken. Concreet betekent dit dat de chauffeurs niet meer op de vrachtwagen moeten wachten.



Voor de proefproject wordt gebruik gemaakt van geluidsdempende maten.

## E12 | MENS & ECONOMIE

### Nooit meer vroeg wakker dankzij 'fluistertransport'

Wortd u ook elke ochtend gewekt door de vrachtwagen die uw supermarkt bevoorraadt? Colruyt en Delhaize beginnen met een zoektocht naar geluidsdempende oplossingen.



## Stille leveringen voor meer mobiliteit

Delhaize en Colruyt stappen in project om winkels met stille vrachtwagens langer te belevieren

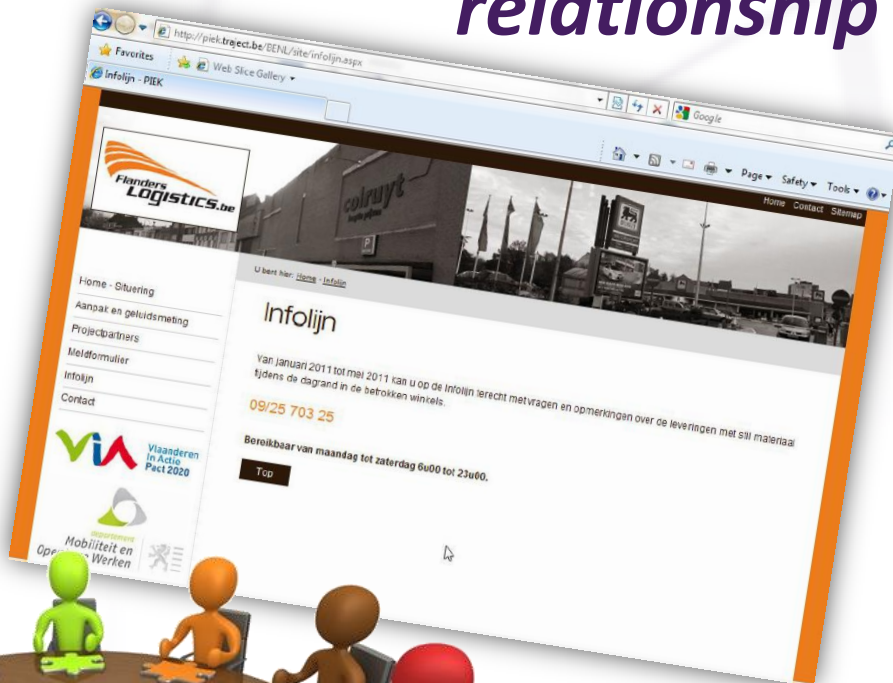
**60 DECEMBER**

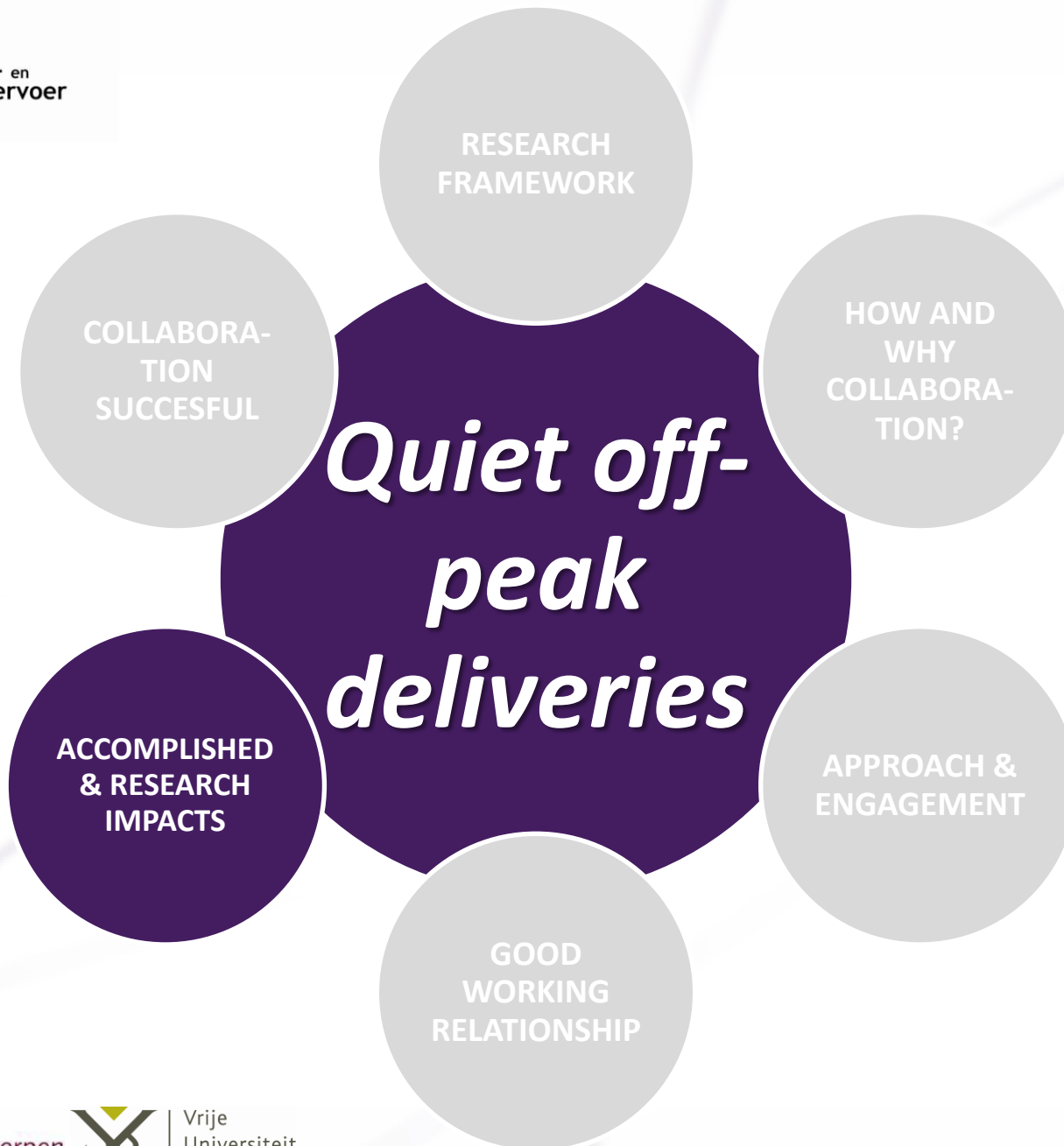
Via een reeks technische aanpakken aan de vrachtwagen wordt het geluid van de vrachtwagen minder hoorbaar. Dit wordt bereikt door de vrachtwagen te voorzien van geluidsdempende maten op de laad- en lossenlocaties. De bedoeling is dat de vrachtwagen langer stil kan staan op de laad- en lossenlocaties.





# Good working relationship





*accomplished &  
research  
impacts*

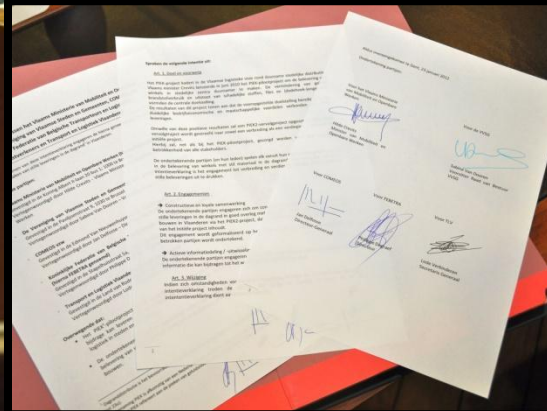
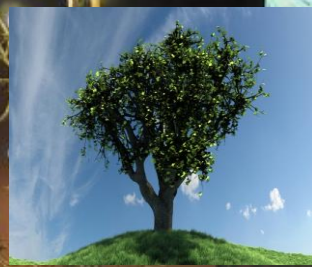


# *Pilot testing between May 2011 & Novembre 2011*





# accomplished & research impacts



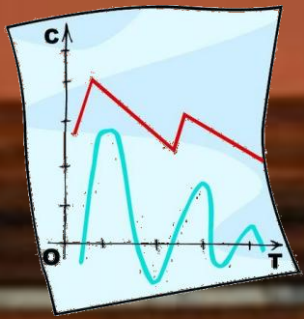




*accomplished &  
research  
impacts*



*accomplished &  
research  
impacts*



## Social perspective



*accomplished &  
research  
impacts*

1. **NO noise complaints**
2. **Better relation** between retailers and neighborhood
3. **Safety**
  - ✓ Less trucks in cities during peak hours
  - ✓ Less conflicts with bicycles
4. **Less “stressed” drivers**

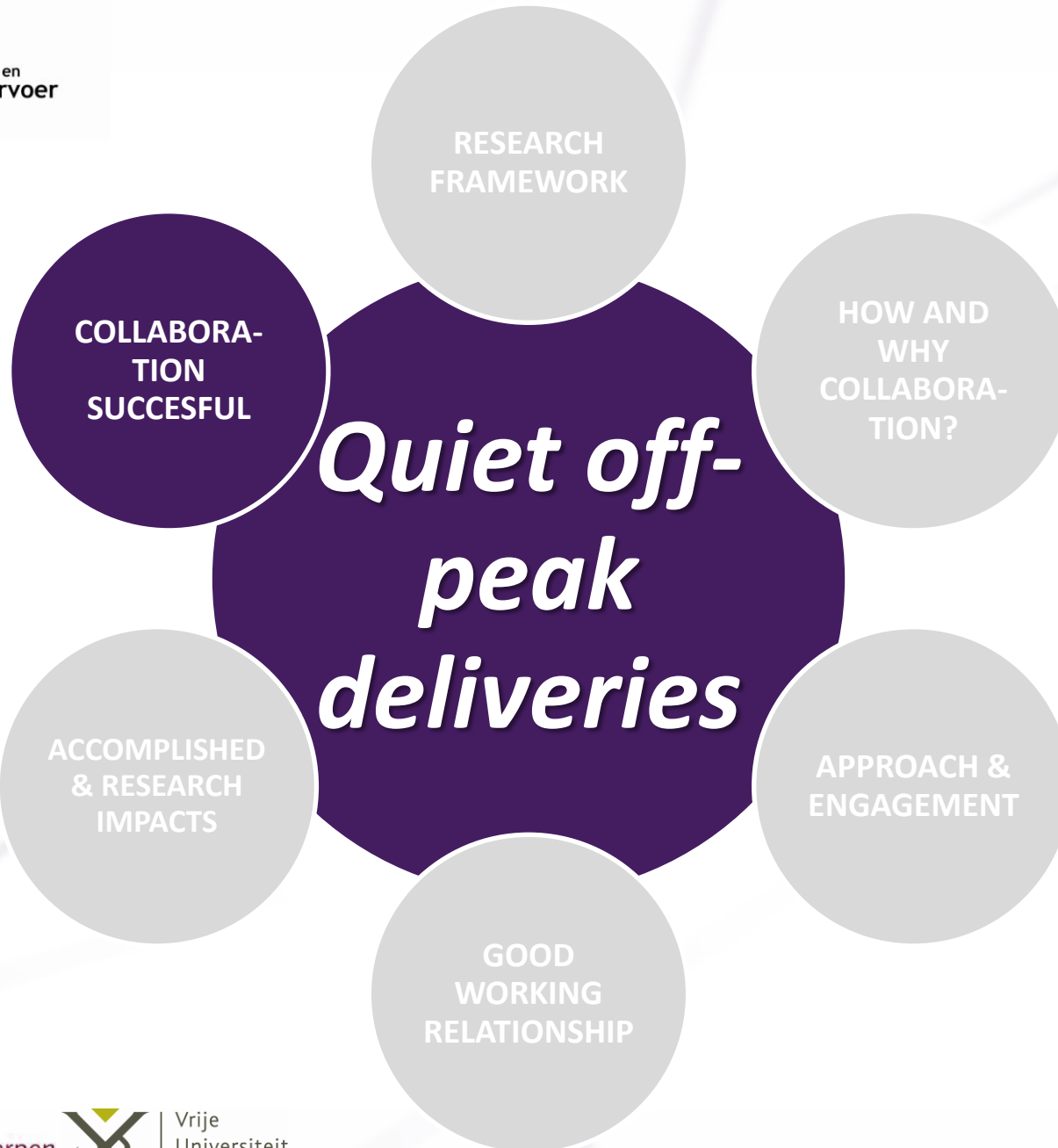






## **Economics**

- **Fuel consumption** (diesel) from **37,5l** (average) to **32.5l** (off-peak)
  - **Average speed**
    - Average speed during day (incl. Peak hours): **50km/h**
    - Average speed during morning (off-peak 6 a.m.): **61,0 km/h**  
→ **22% faster**
    - Average speed during evening (off-peak 7 p.m.): **67,6 km/u**  
→ **35% sneller**
- ***Fuel savings + labour time savings***



# Collaboration successful

## GOOD COLLABORATION RELATIONSHIP NEEDS:

- ✓ **OPEN COMMUNICATION / STAKEHOLDER PLATFORM!!!**
- ✓ **POLICY SUPPORT (MAJORS, MINISTERS, CITY COUNCILS)**
  - ➔ **POSITIVE IN PRESS: IMPORTANT**
- ✓ **PRESENTING FINANCIAL IMPACTS OF PROJECT TO PRACTITIONERS**
- ✓ **INDEPENDENT INTERMEDIATE**
- ✓ **EVERY PARTY INVOLVED NEEDS A TOPICS TO SCORE (RESEARCHERS & PRACTITIONERS)**

➔ **SOCIAL, FINANCIAL, ENVIRONMENTAL & DATA**



## FUTURE

- **PIEK II project**
  - *60 cities*
  - *5 retailers*
  - *E-commerce logistics player will join*
  - *Combining the collection of data within stakeholders platform ( → Due communication dynamics)*
- **Changing legislation**
- **European approach → European legislation?**

# Thank you for your attention

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