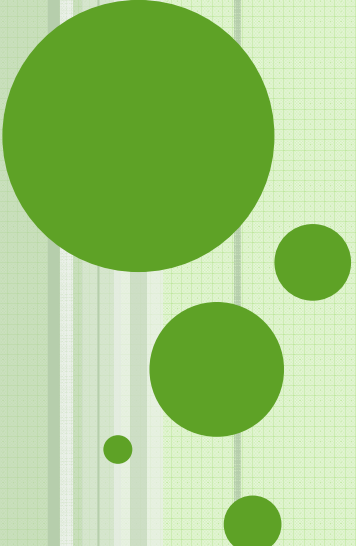


# Velo-city 2013

Vienna, 12th June

Workshop

## INTERACTIONS BETWEEN PEDESTRIANS AND CYCLISTS. HOW TO SOLVE EMERGING CONFLICTS



**Alberto Castro**  
Sustainable  
mobility  
consultant

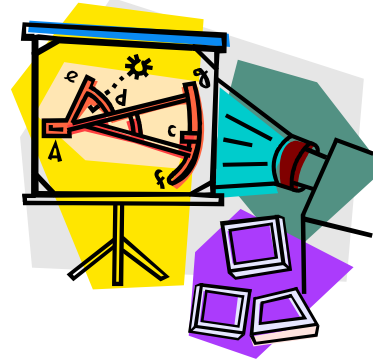
**Luis Morales**  
Emprendae

**Alfonso Sanz**  
gea21 SL

# CONTENT

## ○ Presentation (15 minutes)

- Introduction
- Problems
- Reasons
- Solutions
- Conclusions



## ○ Workshop discussion (up to 1 hour 15 minutes)

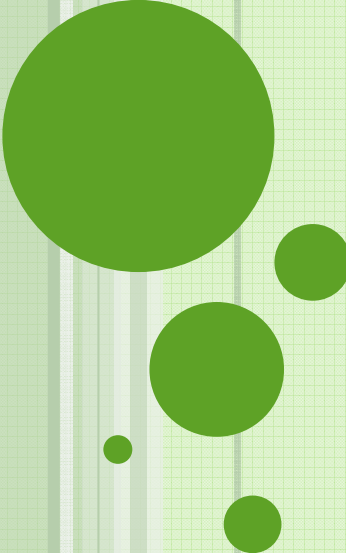
- Your participation!



# PRESENTATION



Picture: Alberto Castro



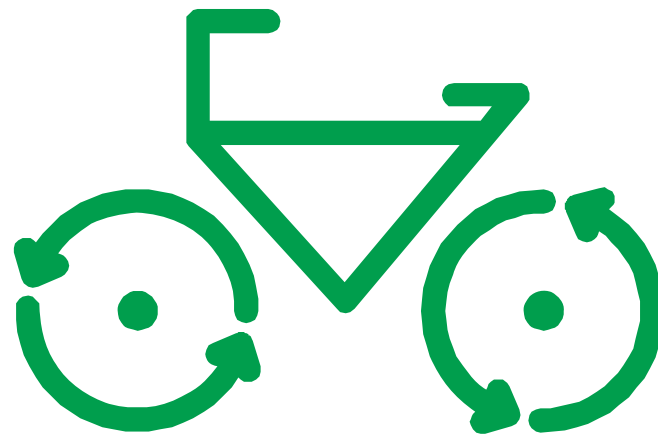
# **INTRODUCTION**

## **CYCLING / CAR / WALKING**



# INTRODUCTION. CYCLING

- Cycling is good
  - Non-polluting
  - Active travel
  - Efficient space consumption
  - Efficient energy consumption
  - Low resources consumption
- Since cycling is good → let's promote cycling!
  - Cycle-ways
  - Cycle-parking
  - Bike-sharing
  - Campaigns
  - ...
- But...



Picture: Alberto Castro



Picture: The Drum



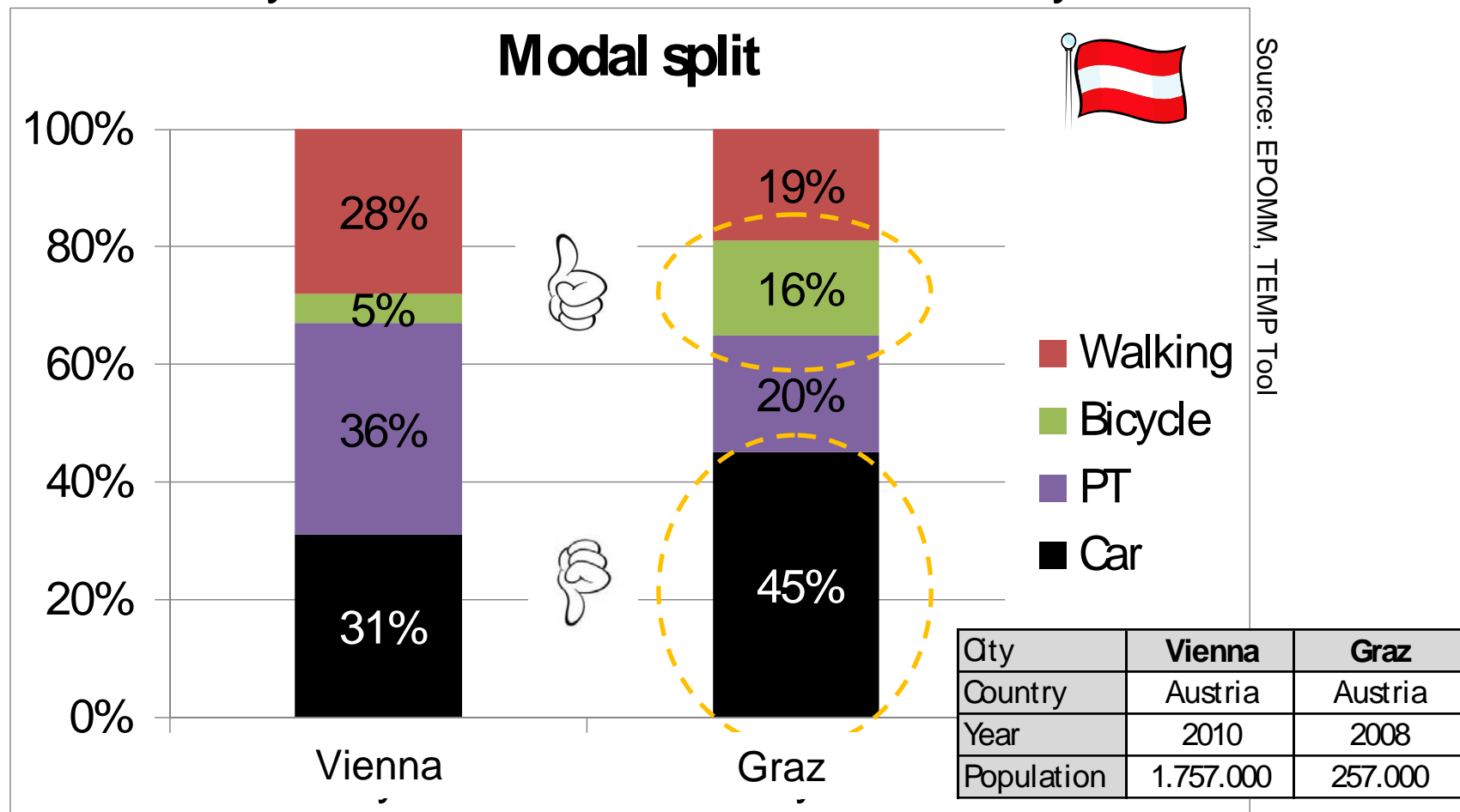
Picture: Alberto Castro



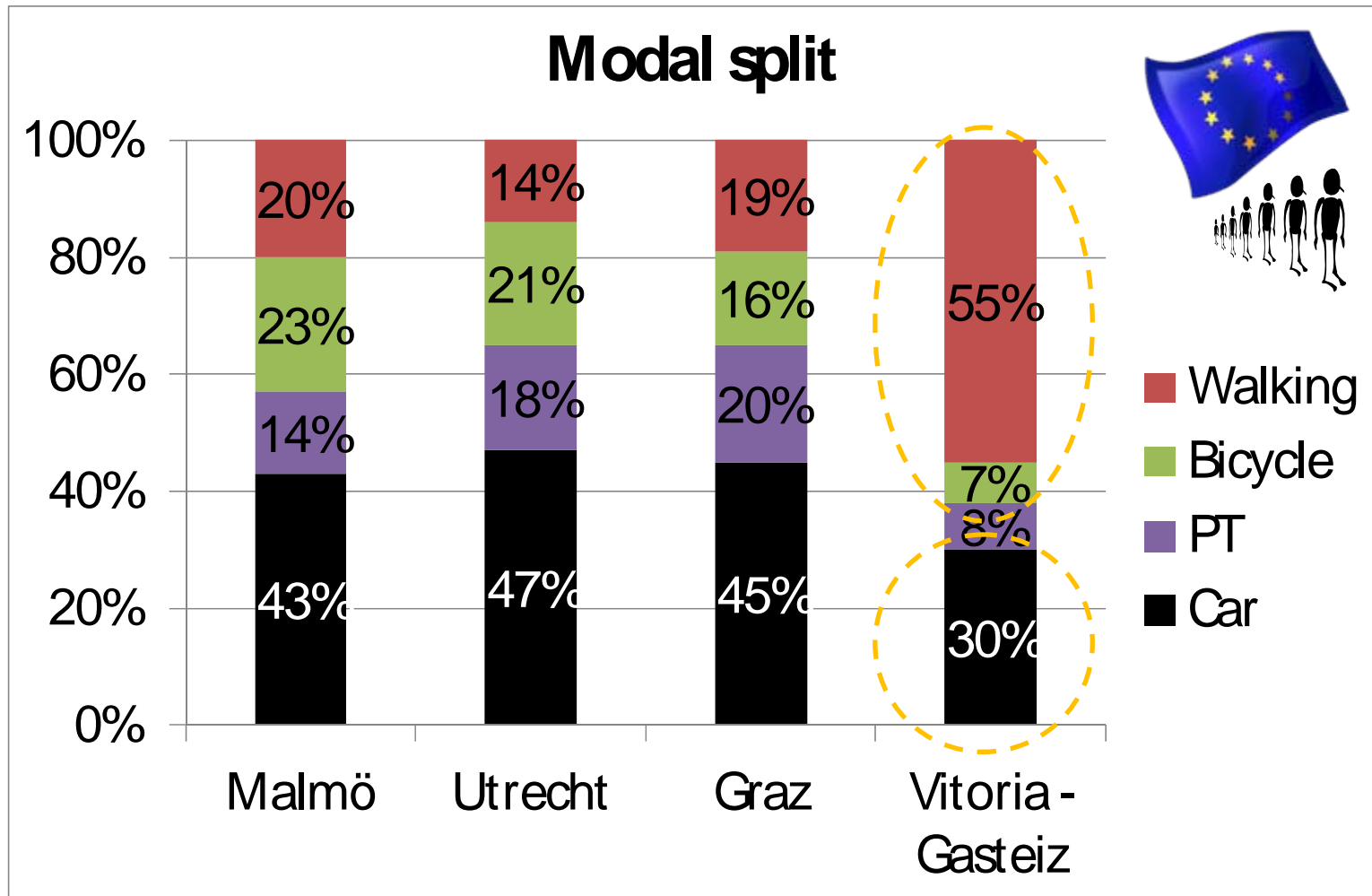
Picture: Alberto Castro

# INTRODUCTION. SUSTAINABLE MOBILITY

- High cycling level = sustainable mobility?
  - Not necessarily
  - Cycling is just an indicator
- Which city has a more sustainable mobility?



# INTRODUCTION. SUSTAINABLE MOBILITY



| Qty        | Malmö   | Utrecht         | Graz    | Vitoria-Gasteiz |
|------------|---------|-----------------|---------|-----------------|
| Country    | Sweden  | The Netherlands | Austria | Spain           |
| Year       | 2010    | 2008            | 2008    | 2011            |
| Population | 299.000 | 295.000         | 257.000 | 240.000         |

# INTRODUCTION. CAR TRAFFIC

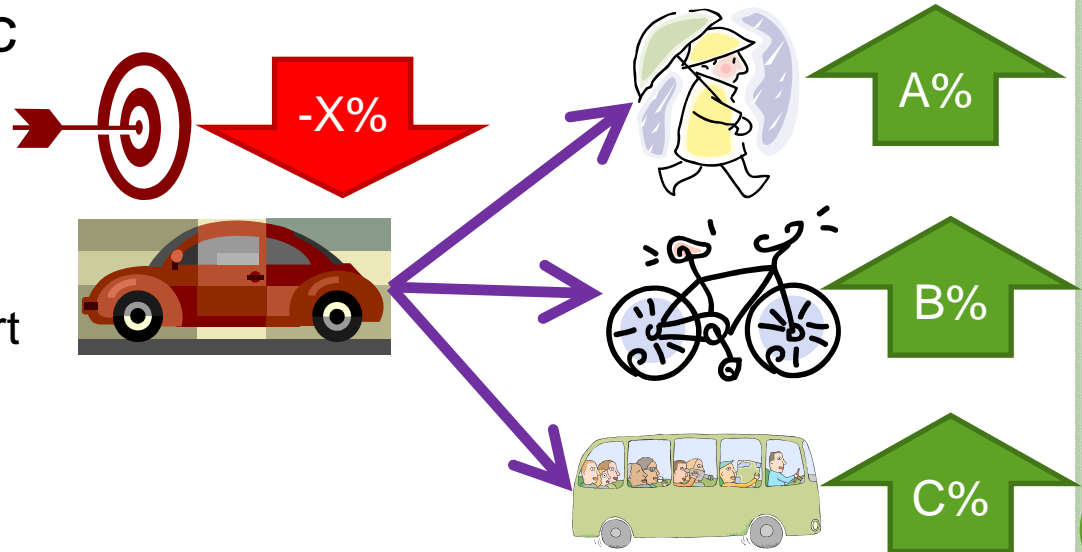
- Car traffic is the main problem

- Pollution
- Sedentarism
- Inefficient space consumption
- Inefficient energy consumption
- High resources consumption



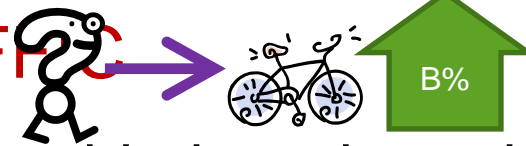
- So the main goal of sustainable mobility policies should be reducing car traffic

- Wished modal shift:
  - Car → Walking
  - Car → Cycling
  - Car → Public transport



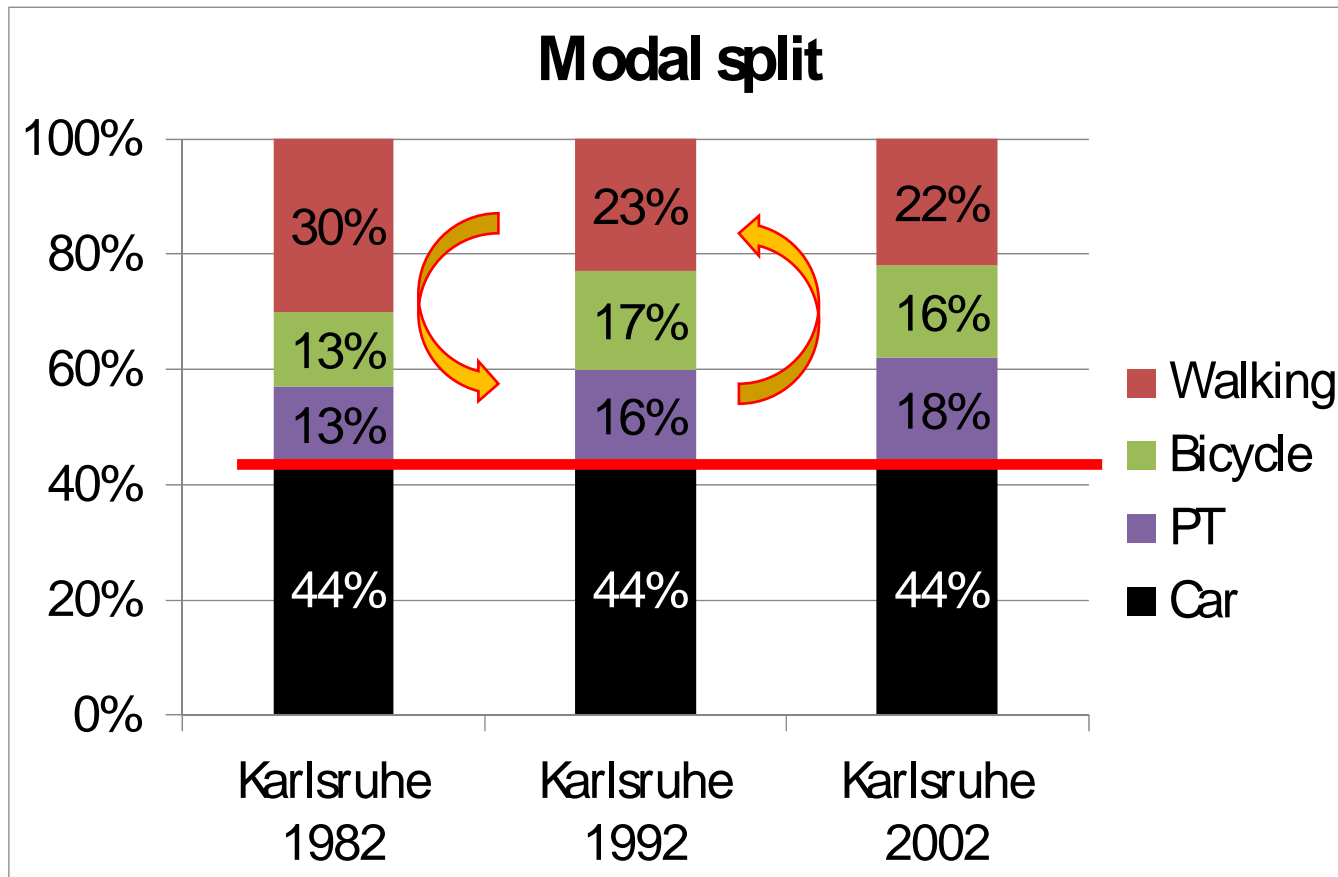
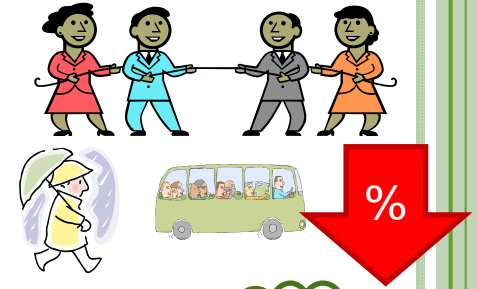


# INTRODUCTION. CAR TRAFFIC



- If we promote cycling without considering where these cyclists will come from, we might have:

- Conflicts between sustainable transport modes
- Reduction of walking or PT trips → no big win
- Disregard of the main goal: reducing car traffic



# INTRODUCTION. WALKING

## Transport mode

- Walking is the most sustainable transport mode
- Walking is the most universal transport mode
  - Everyone is pedestrian at some moment
- Walking is the weakest transport mode
  - No protection
  - Low speed

But pedestrian zones and sidewalks have not only transport functions!

- Social exchange
- Environmental communication
- Resting
- Playing, etc.

Protection and improvement  
of walking conditions



Big positive  
impact





**PROBLEMS**

# PROBLEMS FOR PEDESTRIANS

Caused by bad city design and other transport modes (we focus on cycling):

- Reduction of space
- Unaccessibility
- Unsafety



Picture: Bicilibre

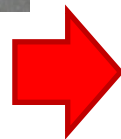


Picture: IG Fahrrad



Picture: Alberto Vera. El Mundo

Bad conditions



Decrease of walking



A diagram illustrating the relationship between reasons and problems. It features a large yellow arrow pointing from left to right, with the word "REASONS" in bold black text inside it. The arrow points towards a gray octagon with a red border, which contains the word "PROBLEMS" in white text. The entire diagram is enclosed in a rounded rectangular frame with a thick orange border. To the left of the frame, there are several green circles of varying sizes, some of which are partially cut off by the edge of the frame.

**REASONS**

**PROBLEMS**



# REASONS

## City

- Deficient or lack of cycling infrastructure
- Ambiguous cycling infrastructure
- Deficient pedestrian space next to cycling routes
- Unclear or confusing traffic rules
  - Sidewalks
  - Pedestrian areas



Picture: En Bici por Madrid



Picture: Robert Wallner



Picture: Luis Morales

# REASONS

## Cyclists

- Perceived or objective unsafety of cyclists on the road
- Regardless of pedestrian priority (the law of the strongest)
- Ignorance or disregard of traffic rules



Picture: Efe. Deia

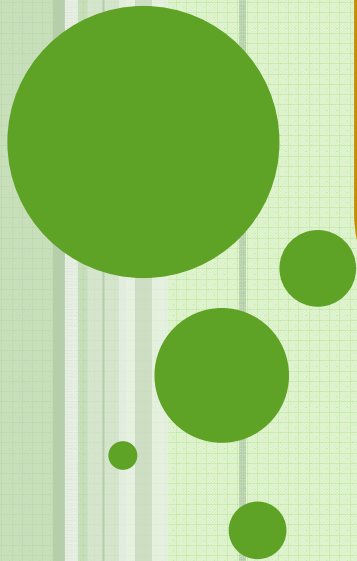
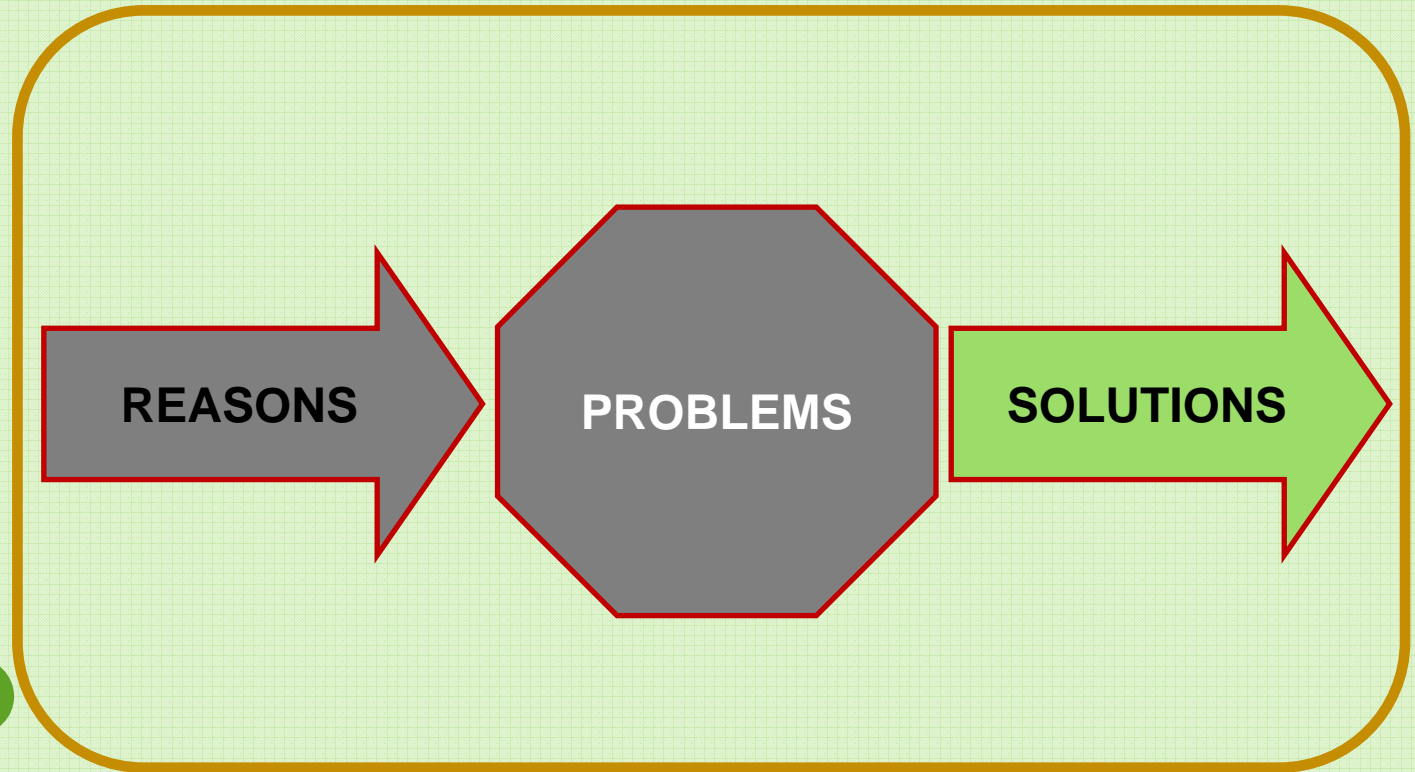


Picture: Daniel Tercero García. 20 minutos



Picture: Dirk Thannheimer





# SOLUTIONS

## City

- Traffic calming
- Technical rigour when planning and designing cycling routes
- Improvement of pedestrian areas when planning cycling infrastructures
- Clear rules that avoid the use of pedestrian spaces
  - Education for cyclist
  - Enforcing of rules



Picture: Biciibre



Picture: City of Nuremberg



Picture: En bici por Madrid



# SOLUTIONS

## Cyclists

- Civic behaviour and awareness of pedestrians
- Priority in junctions and pedestrian zones for walking
- Low speed in share spaces
- Not blocking sidewalks when parking the bike
- Use of headlights and bells



Picture: Kai Remmers. Berliner Woche



Picture: En bici por Madrid

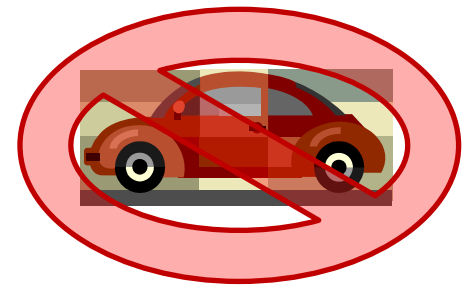
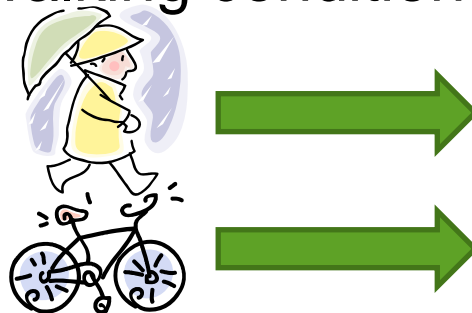


Picture: City of Offenbach



# CONCLUSIONS

- Sustainable mobility = reduction of car traffic
- Walking is the most sustainable (and the weakest) transport mode
- Bad conditions for pedestrians → reduce walking
- Origin of walking problems:
  - Municipal infrastructure and rules
  - Other transport modes
    - Cyclists too!
- Promotion of cycling but without compromising walking conditions



# WORKSHOP DISCUSSION



Picture: Amos Aikman The Australian

# EXAMPLE 1:

- Problems? Reasons? Solutions?



Picture: Alfonso Sanz



Picture: Alfonso Sanz



## EXAMPLE 2



### ○ Problems? Reasons? Solutions?

Madrid (Spain)



Picture: Alfonso Sanz

# EXAMPLE 3

## ○ Problems? Reasons? Solutions?



Madrid (Spain)



Picture: Alfonso Sanz



## EXAMPLE 4:



### o Problems? Reasons? Solutions?

Sevilla (Spain)



Picture: Alfonso Sanz

# EXAMPLE 5



## ○ Problems? Reasons? Solutions?

Vitoria-Gasteiz (Spain)



Picture: Alfonso Sanz



# EXAMPLE 6



## ○ Problems? Reasons? Solutions?



Picture: Alfonso Sanz

# EXAMPLE 7



## ○ Problems? Reasons? Solutions?



Madrid (Spain)

Picture: Alfonso Sanz



# EXAMPLE 8



## ○ Problems? Reasons? Solutions?



Picture: Alfonso Sanz



# EXAMPLE 9

## ○ Problems? Reasons? Solutions?



Picture: Eneko Astigarraga

# EXAMPLE 10



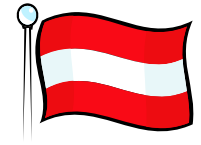
## Problems? Reasons? Solutions?



Picture: Alberto Castro



# EXAMPLE 11



## ○ Problems? Reasons? Solutions?

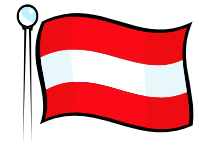
Mödling (Austria)



Picture: Alberto Castro



# EXAMPLE 12



## ○ Problems? Reasons? Solutions?

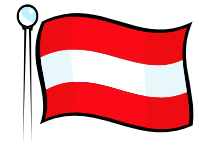


Graz (Austria)

Picture: Luis Morales



# EXAMPLE 13



## ○ Problems? Reasons? Solutions?

Mödling (Austria)

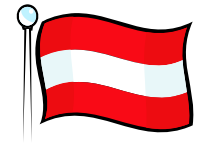


Picture: Alberto Castro



# EXAMPLE 14

## ○ Problems? Reasons? Solutions?



Vienna (Austria)

Picture: Alberto Castro

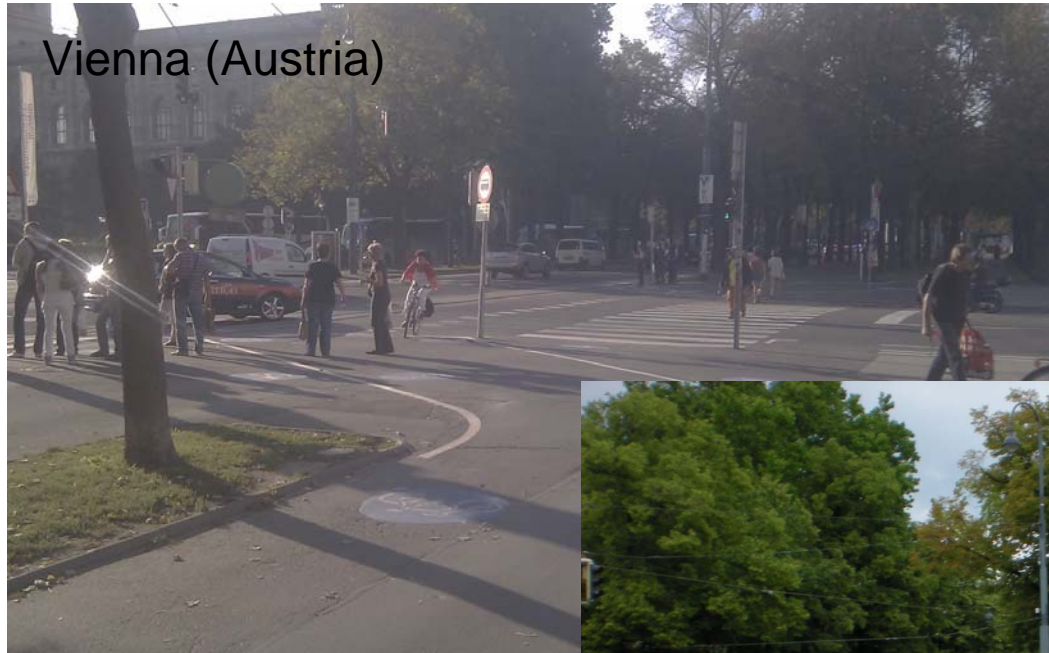
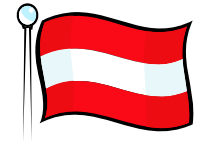


Picture: Alberto Castro



# EXAMPLE 15

## ○ Problems? Reasons? Solutions?

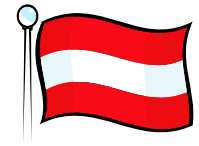


Picture: CROWize Vienna



Picture: Alberto Castro

# EXAMPLE 16



## Problems? Reasons? Solutions?

Vienna (Austria)



Picture: Alberto Castro



# EXAMPLE 17

## ○ Problems? Reasons? Solutions?

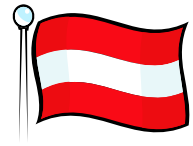
Vienna (Austria)



Picture: Alberto Castro

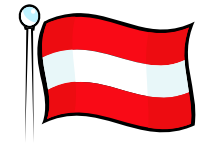


Picture: Alberto Castro





# EXAMPLE 18



## ○ Problems? Reasons? Solutions?

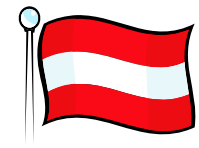
Vienna (Austria)



Picture: Alberto Castro



# EXAMPLE 19



## Problems? Reasons? Solutions?



Mödling (Austria)



Picture: Alberto Castro

## EXAMPLE 20

- Exam



<https://www.youtube.com/watch?v=nCrMLyXByFc>



# THANK YOU FOR YOUR ATTENTION AND PARTICIPATION

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