

# City-wide 30km/h Speed Limit at the New Road Code of Greece & the NTUA Marathons Campaign

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ETSC Main Council Meeting

Krakow, 3 April 2025

# Outline

1. Key facts about speeding
2. Scientific evidence on 30km/h city-wide schemes
3. Cost benefit analysis example
4. Conclusion
5. 30 Marathons in 30 months campaign



# Objectives

Two published literature reviews:

- Assessment of changes **before and after** the implementation of city-wide 30 km/h speed limits in Europe (meta-analyses of 70 studies from 17 cities)

*Yannis, G., & Michelaraki, E. (2024). Review of City-Wide 30 km/h Speed Limit Benefits in Europe Sustainability, 16(11), 4382*

- Assessment of the effectiveness of 30 km/h speed limit through **simulation studies** (meta-analyses of 60 studies)

*Yannis, G., & Michelaraki, E. (2024). Effectiveness of 30 km/h speed limit - A literature review. Journal of Safety Research, Vol. 92, November 2024*



Safety



Emissions



Energy



Traffic



Liveability



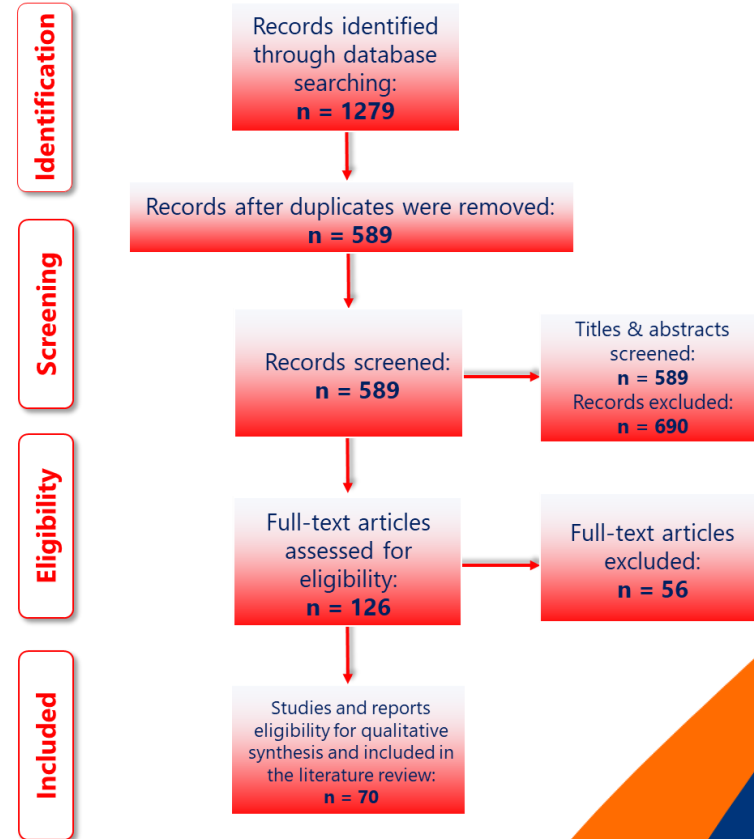
Health



# Methodology

Key search phrase	Search terms	Screened papers	Included papers
30 km/h speed limit	"30 km/h" OR "20 mph" OR "30 km/h speed limit" OR "speed limit" OR "speed limit reduction" OR "maximum speed" OR "reduced speed" AND "traffic calming" AND "mobility" AND "city-wide" AND "cities" AND "implementation modalities" AND "benefits" AND "urban areas"	589	70

- **Meta-analyses of 70 studies from 17 cities** were reviewed
- Systematic search of relevant scientific and grey literature, according to the **Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA)**
- The **inclusion criteria** for selecting relevant studies were:
  - ✓ Search term included in title, abstract or key words
  - ✓ Studies published from 1992 and onwards
  - ✓ Studies including information with regards to 30 km/h speed limit in the title or abstract
  - ✓ Source: peer-reviewed journals before peer-reviewed conference papers before scientific papers/articles



*The PRISMA flowchart*





# Key Facts about Speeding

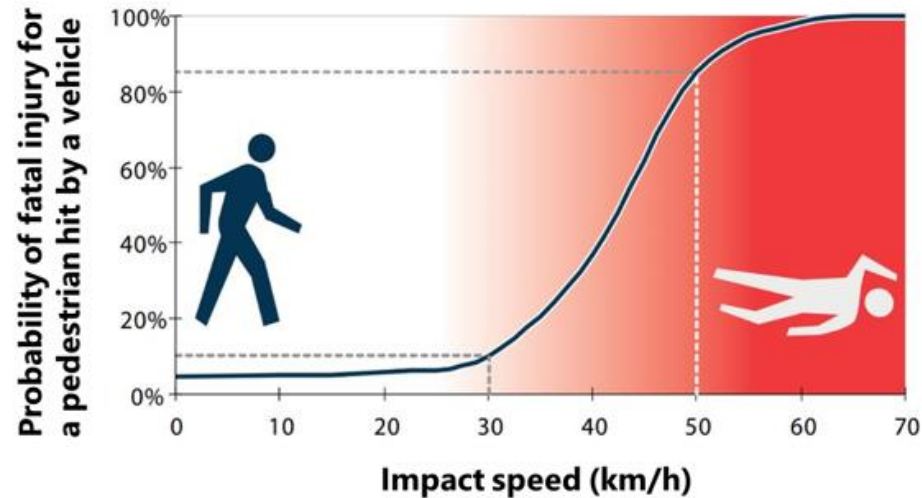
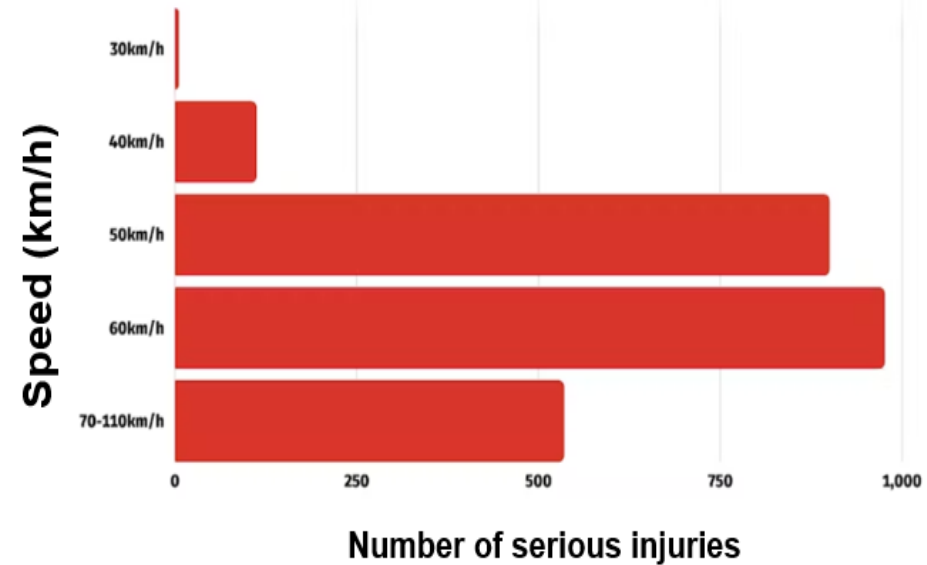
# Speeding Kills (1/2)

- Road crashes is a **major societal problem** worldwide, with 1,19 million road fatalities per year and more than 50 million of road injuries
- Speeding is the **number one cause of road crashes** worldwide, especially in cities where pedestrians, cyclists and motorcyclists are highly exposed and vulnerable in case of a collision (70% of fatalities in urban areas are VRUs)
- Speed has been found to be a **major contributory factor** in around 10-15% of total crashes and in around 30% of fatal crashes
- Speed effects the **quality of life** of urban residents, especially the safe mobility of vulnerable road users



# Speeding Kills (2/2)

- When speed increases, the risk of a **crash and of its severity** increases as well
- A 5% increase in average speed leads to approximately a 10% increase in all **injury crashes** and a 20% increase in **fatal crashes**
- The increase in crash risk is usually attributed by the fact that when speed increases, the **time to react** to traffic situations is shorter and manoeuvrability of a speeding car is limited
- **Pedestrian fatalities** increase from 10% in 30km/h collisions to 90% in 50km/h collisions





# Scientific Evidence on 30km/h City-wide Schemes



# Cities with 30 km/h Speed Limit

A/A	City	Implementation Started
40	Amsterdam	December 2023
39	Wales	September 2023
38	Bologna	July 2023
37	Florence	November 2022
36	Copenhagen	June 2022
35	Lyon	March 2022
34	Den Haag	December 2021
33	Zurich	December 2021
32	Toulouse	November 2021
31	Vienna	September 2021
30	Paris	August 2021
29	Montpellier	August 2021
28	Münster	July 2021
27	Valencia	May 2021
26	Leuven	April 2021
25	Brussels	January 2021
24	Nantes	August 2020
23	Glasgow	January 2020
22	Antwerp	January 2020
21	Barcelona	December 2019

A/A	City	Implementation Started
20	Lille	August 2019
19	Helsinki	May 2019
18	Madrid	September 2018
17	Bilbao	June 2018
16	Strasbourg	February 2017
15	Dublin	January 2017
14	Berlin	January 2017
13	Edinburgh	July 2016
12	London	June 2016
11	Grenoble	January 2016
10	Ljubljana	September 2015
9	Luxembourg	August 2015
8	Ghent	April 2015
7	Bristol	2015
6	Munich	2011
5	Brighton	2010
4	Hove	2010
3	Warrington	July 2005
2	Stockholm	2004
1	Graz	September 1992

**Spain  
2021**

**Wales  
2023**

**Greece  
2025**

**Ireland  
2025**

4 Countries  
adopted/ing  
Countrywide  
30km/h  
speed limits  
(in all urban areas)



# 30km/h Speed Limit in Cities (1/2)

*Yannis, G., & Michelaraki, E. (2024). Review of City-Wide 30 km/h Speed Limit Benefits in Europe Sustainability, 16(11), 4382*

City-wide 30km/h speed limits led to **average reduction** in:  
(meta-analyses of 70 studies from 17 cities)

- Fatalities by **37%**
- Serious injuries by **38%**
- Road crashes by **23%**
- Emissions by **18%**
- Noise by **2.5 db**
- Fuel consumption by **7%**
- Traffic congestion by **2%**



# 30km/h Speed Limit in Cities (2/2)

*Yannis, G., & Michelaraki, E. (2024). Review of City-Wide 30 km/h Speed Limit Benefits in Europe Sustainability, 16(11), 4382*

## Fatalities:

- 63% and 55% reduction in Bristol and Brussels

## Serious injuries:

- 72% and 50% reduction in Münster and Grenoble

## Road crashes:

- 46% and 40% reduction in London and Paris

## Emissions:

- 29% and 25% reduction in Berlin and Graz

## Noise:

- 3 db reduction in Paris and Berlin

## Energy:

- 12% and 10% reduction in Münster and Brussels

## Traffic congestion:

- 9% and 2% reduction in Grenoble and Bilbao

City	Safety			Emissions		Energy	Traffic
	Crashes	Fatalities	Injuries	CO <sub>2</sub> , NO <sub>x</sub> , PM	Noise	Fuel	Congestion
Bologna	-38%	-33%	-10%	-23%			-3%
Zurich	-16%	-25%	-20%		-1.7 dB		
Paris	-40%		-25%		-3 dB		
Münster			-72%	↓	↓	-12%	
Brussels	-10%	-55%	-37%		-2.5 dB	-10%	
Glasgow		-31%					
Helsinki	-9%		-42%				
Bilbao	-28%			-19%			-2%
Berlin	-10%			-29%	-3 dB		
London	-46%	-25%	-25%	-10%			
Grenoble	↓	↓	-50%				-9%
Edinburgh	-38%	-23%	-33%	-8%			-2.4%
Bristol		-63%					
Brighton			-45%				
Hove			-45%				
Warrington			-43%				
Graz	-12%		-20%	-25%	-2.5 dB		

\* grey colour indicates that the impact of the implementation of 30 km/h in this city has not been examined yet

\*\* the symbol ↓ indicates that the quantitative effect of this measure has not been provided; only qualitative impact is given

\*\*\* these reductions refer to a comparison period before and after the implementation of 30 km/h speed limits which is not the same among all cities examined



# Effectiveness of 30 km/h Speed Limit

*Yannis, G., & Michelaraki, E. (2024). Effectiveness of 30 km/h speed limit – A literature review. Journal of Safety Research, Vol. 92, November 2024*

## Road safety

- decrease average travel speed
- decrease conflicts with VRUs

## Environment

- reduce air pollution
- reduce car dependency

## Traffic flow

- reduce traffic volumes
- reduce congestion

## Energy

- reduce fuel consumption
- promote smoother eco-driving



## Sustainability

- increase Public Transport use
- increase pedestrian, cyclists and e-scooter active mobility

*Setting a speed limit of 30 km/h where people and traffic mix, make streets  
**safer, healthier, greener and more liveable***





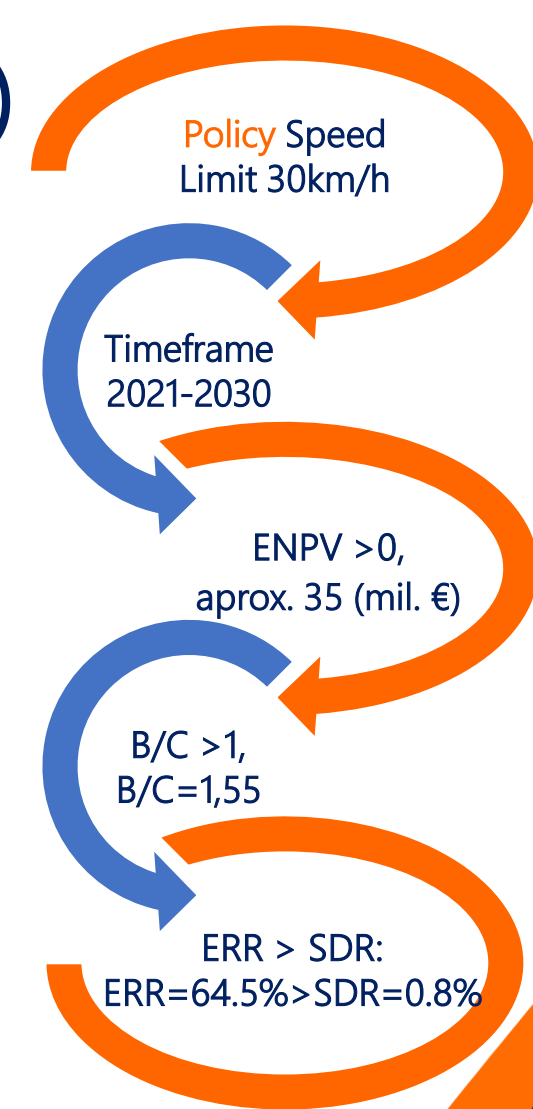
# **Cost Benefit Analysis Example**

# Cost Benefit Analysis Results – Athens (1/2)

*Roussou, S., Petraki, V., Deliali, K., Kontaxi, A. & Yannis, G. (2024). Cost benefit analysis of reducing speed limits in Athens to 30 Km/h. Case Studies on Transport Policy, 101289, October 2024*

A Cost Benefit Analysis for the City of Athens was implemented till the year 2030, by including all the **Costs** (Implementation and Operational) and all the **Benefits** (Road Crashes, Fuel Consumption, Emissions) which concludes to the following **results**:

- The most important economic benefit arises due to the improvement of **road safety** through the reduction of fatalities on road crashes:
  - ✓ Expected Net Present Value (ENPV) > €35 million
  - ✓ Benefit-Cost Ratio (B/C) = 1,55
  - ✓ Economic Rate of Return (ERR) = 64.5%
  - ✓ Social Discount Rate (SDR) = 0.8%
- All the examined policies present a **positive ENPV** and an ERR higher than the SDR, indicating their feasibility over time



# Cost Benefit Analysis Results – Athens (2/2)

*Roussou, S., Petraki, V., Deliali, K., Kontaxi, A. & Yannis, G. (2024). Cost benefit analysis of reducing speed limits in Athens to 30 Km/h. Case Studies on Transport Policy, 101289, October 2024*

- It is estimated that city-wide 30 km/h speed limits on the road network of City of Athens (with the exception of major axes) will save lives annually:
  - 33 **fatalities**
  - 83 **seriously injured** and 830 **slightly injured**
  - **fuel consumption** by 48 million litres
  - 65.5 thousand tonnes of **CO<sub>2</sub>, NO<sub>x</sub> και PM**
- The **traffic congestion** change is negligible
- The indirect benefits of increasing the use of **Public Transport** and **active travel** are also significant



# Benefits from Countrywide New Speed Limits

It is estimated that city-wide 30 km/h speed limits on the road network of all cities in Greece (with the exception of major axes) will save lives annually:

- 104 **fatalities** (out of 635 in Greece)
- 123 **seriously injured** (out of 636 in Greece)
- 783 **slightly injured** (out of 12,533 in Greece)





# New Greek Road Code - 30km/h speed limit

- **30km/h speed limit** is foreseen in all urban areas in Greece
- Under final checking by the Government – expected to **be voted before summer 2025**
- Foreseen to be in force from **1 November 2025**
- Initial prevision for all one-way one lane urban roads
- Accompanied by:
  - a more **rational fines system** (linked to the severity and the size of the infraction)
  - a large number of speeding monitoring **cameras**
  - a new digital system for **automated processing of fines**



**30km/h**  
Speed Limit for  
Safer, Healthier and  
Greener Cities



**Conclusion**

# City-wide 30km/h speed limits: the road safety catalyser

The since-long waited single road safety measure  
with such a significant benefit at such a low cost

Such a high societal impact  
for such a small change in our habits

More than a simple new traffic rule:  
a catalyser for a new road safety culture

# Conclusion

## More livable cities

Speed limits reduction gaining rapid acceptance across Europe and more and more European cities adopting lower speed limits

## Significant socio-economic impact

The reduction of speed limits in cities (30km/h) leads to a significant reduction in:

- road crashes and casualties
- fuel/energy consumption and air pollution without a significant decrease in travel times

## Increase of acceptance

- **Public acceptance** of speed limits reduction tends to improve over time, especially by pedestrians, cyclists and Public Transport passengers
- **Inertia and reactions** from car drivers need to be addressed



# Accompanying Measures

- Public consultation and **awareness campaigns**
- **Public transport** and active mobility promotion
- Traffic **calming** measures
- **Intelligent transportation** systems
- **Monitoring** and evaluation
- **Enforcement** and police cooperation



# Time for Action at European level

- Speeding, as the key factor for road crashes, must be **recognized as a major societal health issue** for which action is needed at EU level, as is the case with smoking and alcohol consumption.
- Consequently, **the European Union should set the maximum speed limits** in all European Roads, and national and local Authorities can only make the necessary adjustments of lower speed limits after specific studies.
- Given its unprecedented benefits, the **city-wide 30km/h speed limits should become a European rule** (off course with the exception of selected main axes e.g. roads with a median), with the EU assuming thus its fundamental role of protecting its citizens' lives



# 30 Marathons Campaign



- In order to make scientists' voices louder, I engaged in a global campaign of running **30 Marathons in 30 months** in order to actively promote the adoption of city-wide 30 km/h speed limit in as many cities as possible worldwide
- This campaign was concluded in November 2024 in Athens (all Marathons in under 4 hours) with a **particularly significant global impact**



George runs 30 Marathons in 30 Months  
for 30km/h speed limit in all cities





Zagori - Jul 2022

Helsinki - Aug 2022

Antwerp - Sep 2022

London - Oct 2022

Athens - Nov 2022

Valencia - Dec 2022



Malta - Feb 2023



Rome - Mar 2023



Paris - Apr 2023



Belgrade - Apr 2023



Copenhagen - May 2023



Stockholm - Jun 2023

# George - 30 Marathons - 30 Months



Apeldoorn - Jul 2023



Tallinn - Sep 2023



Brussels - Oct 2023



Lyon - Oct 2023



Athens - Nov 2023



Florence - Nov 2023



Nicosia - Dec 2023



Dubai - Jan 2024



Sevilla - Feb 2024



Barcelona - Mar 2024



Paris - Apr 2024



Zurich - Apr 2024



Utrecht - May 2024



Torhout - Jun 2024



Paris - Aug 2024



Warsaw - Sep 2024



Munich - Oct 2024



Athens - Nov 2024



# Campaign Social Impact

*An Integrated Communication Policy  
with Strong Global Impact*

- 26 cities with Marathon finish
- 10 International Organisations Allie
- 500.000+ pageviews per year
- 100.000+ global audience at social media
- 200 republished posts from scientific organisations and institutions (with 80.000+ post impressions)
- 44 social media posts
- 35 interviews in the electronic media
- 41 newspaper/magazine articles
- 3 papers in scientific journals
- 24 presentations in conferences/webinars



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