Benefits of reducing urban speed limits to 30km/h



Together with: Eva Michelaraki, Research Associate

Department of Transportation Planning and Engineering National Technical University of Athens

> **Road Safety Performance Index Annual Conference 2025** Half-way through the decade: Reducing speeds on our roads

> > Brussels, 24 June 2025





Outline

- 1. Scientific evidence on 30km/h city-wide schemes (6)
- 2. From city-wide schemes to national and EU rules (4)
- 3. 30 Marathons in 30 months campaign (1)
- 4. The key message (1)







Scientific Evidence on 30km/h City-wide Schemes

Scientific Reviews

The two first-ever 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

These findings are now **referenced worldwide** to substantiate the need for city-wide 30km/h speed limits, demonstrating driving changes in terms of:

Traffic





Emissions





Liveability



Health



George Yannis, Benefits of reducing urban speed limits to 30km/h

Energy

more than 250,000 views

George Yannis · You Professor at National Technical University of Athens, International Ro... 10mo • Edited • 🚱

Very happy to publish the first ever scientific review of city-wide 30 km/h speed limit benefits in Europe. Evaluation results from 40 different cities across Europe (including Paris, London, Brussels, and Helsinki) ...more



View analytics

Send

30 km/h Road Coverage in European Cities

- Many major European cities (Brussels, Bilbao, Lille, Paris, Munich and Amsterdam) have implemented city-wide 30 km/h speed limits, with 80-100% of their streets covered
- Cities like Vienna, Bologna, Berlin and Stockholm have progressively expanded the adoption of 30 km/h speed limits, with ongoing efforts toward broader coverage

A/A	City	Coverage of Roads at 30 km/h	A/A	City	Coverage of Roads at 30 km/h
1	Bilbao, Spain	100%	12	Amsterdam, Netherlands	80%
2	Lille, France	88%	13	Graz, Austria	80%
3	Brussels, Belgium	85%	14	Vienna, Austria	75%
4	Paris, France	85%	15	Glasgow, Scotland	75%
5	Madrid, Spain	85%	16	Bologna, Italy	70%
6	Munich, Germany	85%	17	Barcelona, Spain	70%
7	Toulouse, France	85%	18	Helsinki, Finland	66%
8	Lyon, France	84%	19	Den Haag, Netherlands	65%
9	Grenoble, France	80%	20	Berlin, Germany	60%
10	Montpellier, France	80%	21	Luxembourg, Luxembourg	60%
11	Nantes, France	80%	22	Stockholm, Sweden	60-70%

Source: Multiple European news articles, official websites and blogs on city-wide 30 km/h speed limits init<mark>iatives</mark>



George Yannis, Benefits of reducing urban speed limits to 30km/h

Spain 2021 Wales 2023 Greece 2025 Ireland 2025

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

Impacts of 30km/h Speed Limit in Cities

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**: (meta-analyses of 70 studies from 17 cities)

Fatalities by **37%** Emissions by **18%**

Serious injuries by 38% Noise by 2.5 db

Road crashes by 23% Fuel consumption by 7%

Traffic congestion by 2%



Benefits of City-wide 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 - reduce fuel consumption - promote smoother eco-driving

Traffic flow

- reduce traffic volumes - reduce congestion

Sustainability

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

Key Resources

Energy



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

Long-term Impact

Significant socio-economic impact

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

More livable cities

- Progressive development of friendly environments for pedestrians and cyclists, making it safer and more enjoyable for them to travel on foot or by bike
- Gradual modal shift from passenger cars to public transport and shared and active travelling
- New opportunities for redistribution of public space towards a higher quality of life in cities





Accompanying Measures to Maximise Efficiency

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





From city-wide schemes to national and EU rules

Cost Benefit Analysis Results - Athens

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





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 annually:

▶110 fatalities (out of 665 in Greece)
▶125 seriously injured (out of 636 in Greece)
▶800 slightly injured (out of 12,533 in Greece)



A New Road Safety Culture in Greece with the New Road Traffic Code

30km/h speed limit in all urban streets in Greece, of one or two directions with one lane per direction - the second EU country after Spain (from 1 January 2026)

Accompanied by:

- rationalising and simplifying penalties, linking them to the seriousness & magnitude of offences
- punishing drivers instead of vehicles, especially recidivists
- introducing two-wheeler filtering & advance stopping zones
- deploying cameras for key violations (speeding, helmet, seatbelt, mobile use)
- implementing digital management of fines



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 urban roads in Europe; 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



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

30 Marathons in 30 Months Campaign

30 Marathons in 30 Months Campaign

- The National Technical University of Athens (NTUA) launched the innovative and original <u>30 Marathons in 30</u> <u>months campaign</u> to actively promote the adoption of <u>30km/h speed limit in all cities worldwide</u>, as a key policy for safer, healthier and greener cities for all
- This campaign has mobilized large synergies with key stakeholders and the society and was concluded in November 2024 in Athens (all Marathons in under 4 hours) with a particularly significant global impact
- This impactful campaign was accompanied by <u>extensive</u> <u>media outreach</u> in 25 major European cities, including web, press, tv and radio coverage and a highly effective social media presence that attracted over 500,000 pageviews annually and an audience of more than 150,000 people







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

3

The Key Message

City-wide 30km/h Speed Limits boost a New Road Safety & Mobility Culture

- City-wide 30km/h speed limit is the since-long waited single road safety measure with such a significant benefit at such a low cost and such a small change in our habits
- More than a simple new traffic rule: a catalyser for slower and safer traffic, for a new road safety and mobility culture



Benefits of reducing urban speed limits to 30km/h



Together with: Eva Michelaraki, Research Associate

Department of Transportation Planning and Engineering National Technical University of Athens

> **Road Safety Performance Index Annual Conference 2025** Half-way through the decade: Reducing speeds on our roads

> > Brussels, 24 June 2025



