

# Tramways in pedestrian zones and traffic calmed areas – speed allowances



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# Scope of study

- The “classic” pedestrian zone with certain exceptions and allowances for delivery traffic, residential traffic and tramway/bus traffic,
- the newer “meeting zone” which allows principally access for all modes but with pedestrian priority and a defined low speed of 20 km/h,
- a traffic-calmed zone either with walking speed or another defined low speed (20 or 30 km/h).

# Reviewed cases in 4 countries

Tramway speeds in pedestrian areas (mixed areas)

		Pedestrian zone	"Meeting zone"	Mixed area	Remarks
Bremen	Germany				
Darmstadt	Germany				
Freiburg	Germany				
Karlsruhe	Germany				
Kassel	Germany				
Mannheim	Germany				
Rostock	Germany				
Würzburg	Germany				
Zwickau	Germany				
Graz	Austria				
Linz	Austria				
Amsterdam	Netherlands				
Angers	France				
Besancon	France				
Le Mans	France				
Nice	France				
Strasbourg	France				

**“Encore”**: Norwegian situation?

# Germany

A photograph of a modern tram on a cobblestone street in a pedestrian zone. The tram is dark-colored with a white front and is moving along tracks. The street is paved with cobblestones and has tram tracks. In the background, there are multi-story buildings with many windows. A sign for 'FONTAINE Restaurant' is visible on the left. The overall scene is a typical urban setting in Germany.

**Pedestrian zone with tramway: quite a standard**

**Meeting zone with tramway: not yet**

**Traffic calmed zone with tramway: occasionally**

# Austria

A photograph of a modern tram on a cobblestone street in Austria. The tram is dark-colored with a white front and is moving along tracks. The street is paved with cobblestones and has tram tracks. In the background, there are multi-story buildings with many windows. A sign for 'FONTAINE Restaurant' is visible on the left. The overall scene is a typical urban street with a tram.

**Pedestrian zone with tramway: quite a standard**

**Meeting zone with tramway: first try**

**Traffic calmed zone with tramway: ?**

# Netherlands

A photograph of a modern tram on a cobblestone street in the Netherlands. The tram is silver and black, with 'S. Coenen' written on its side. It is moving along tracks embedded in the pavement. In the background, there are multi-story buildings with many windows and a sign for 'FONTAINE Restaurant'. The overall scene is a typical urban street in a Dutch city.

**Pedestrian zone with tramway: yes**

**Meeting zone with tramway: ?**

**Traffic calmed zone with tramway: ?**

# France

A photograph of a modern tramway in a city street in France. The tram is silver and black, with 'S. Courbet' written on its side. It is on tracks in a cobblestone street. In the background, there are multi-story buildings with many windows. A sign for 'FONTAINE Restaurant' is visible on the left. The image is semi-transparent with text overlaid.

**Pedestrian zone with tramway: yes**

**Meeting zone with tramway: yes**

**Traffic calmed zone with tramway: yes**

# **General – but very important!**

**A speed limit is a limit and by no means a recommended speed!**

**Tramway drivers are no railway drivers and have to adapt their driving to the traffic situation.**

**(Regulations in some countries may be less supportive to the latter attitude ...)**

**Speed limits are normally case specific – x km/h here doesn't exclude y km/h there.**



# Pedestrian zone cases (selection)

## Bremen /Germany



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# Pedestrian zone cases (selection)

## Bremen /Germany



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# Pedestrian zone cases (selection)

**Bremen /Germany**

**Special allowance  
for 30km/h !**



# Pedestrian zone cases (selection)

## Karlsruhe /Germany



**Special allowance for 25km/h in pedestrian zones  
– this speed limit appears dominating in Germany.**

# Pedestrian zone cases (selection)

## Zwickau /Germany



**Special allowance for 20km/h in pedestrian zone and adjacent narrow, single-track section.**

# Pedestrian zone cases (selection)

## Darmstadt /Germany



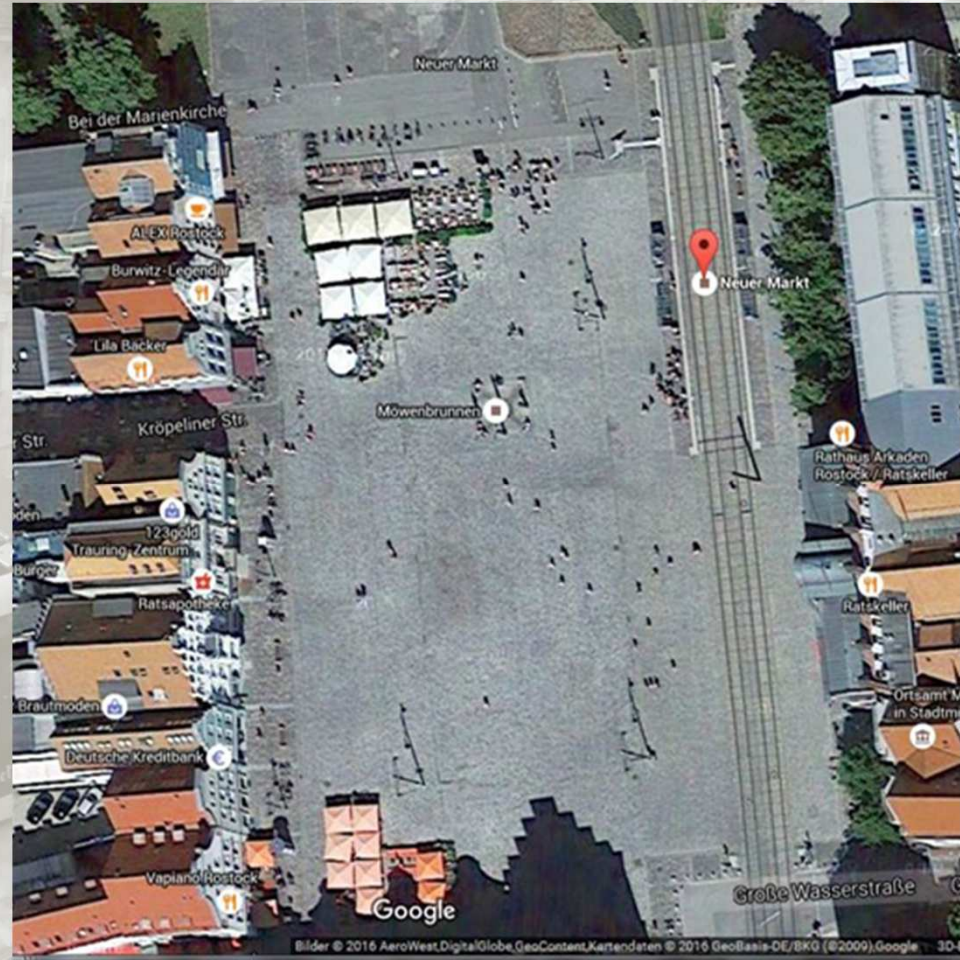
**Special allowance for 15km/h in pedestrian zone, reasoned by bus traffic?**

# Pedestrian zone cases (selection)

Rostock /Germany ...

...or the result of  
federalism and staff  
changes?

Special allowance was  
20km/h and has been  
reduced to 10km/h!



Source: Google Earth

# Pedestrian zone cases (selection)

## Linz / Austria



**Special allowance 30km/h since 1977!**



# Pedestrian zone cases (selection)

## Graz / Austria



**Special allowance 20km/h since 1972!**

# Pedestrian zone cases (selection)

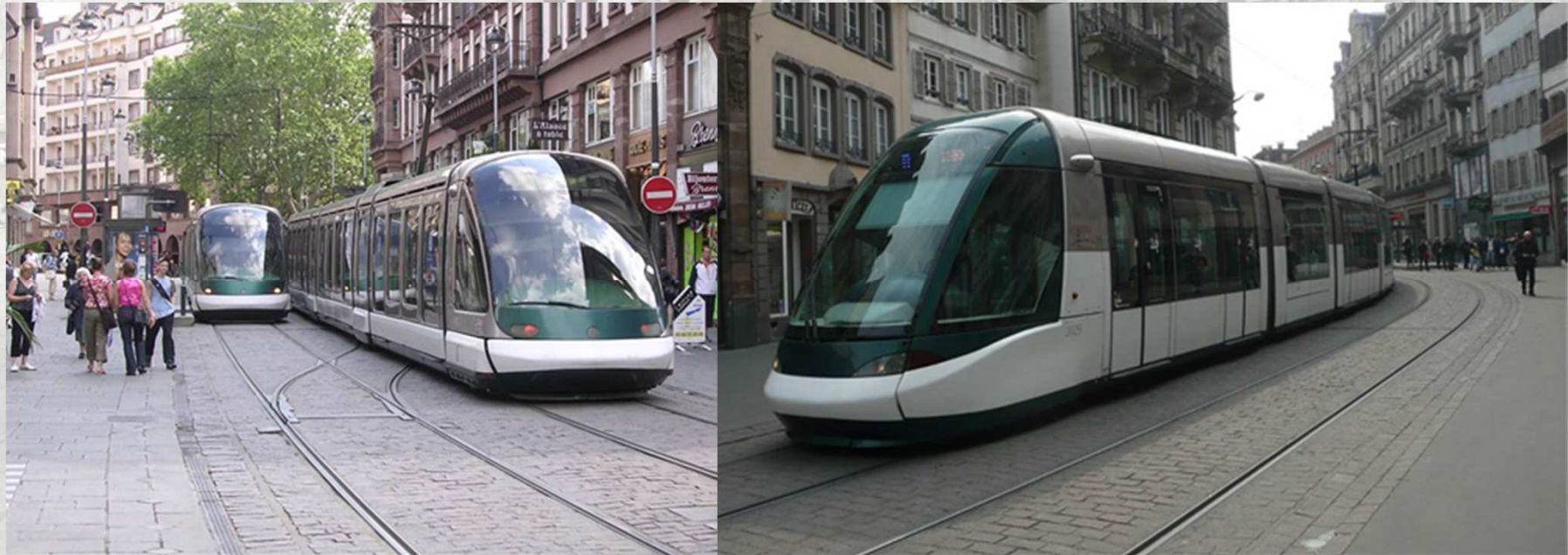
## Amsterdam / Netherlands



**Leidsestraat: mother of crowded tourist streets;  
special allowance 30km/h!**

# Pedestrian zone cases (selection)

## Strasbourg / France



**Special allowance 25km/h!**

# Pedestrian zone cases (selection)

Angers / France



**Special allowance 25km/h!**  
**Delivery traffic one-way only.**

# Meeting zone cases (selection)

## Linz / Austria



Source: <http://www.begegnungszonen.or.at/details.php?Projektnummer=22> / Linz municipality

**Special allowance 30km/h (car traffic 20km/h)!**

# Meeting zone cases (selection)

## Besancon / France



**Special allowance 30km/h (car traffic 20km/h)!**

# Traffic calmed zone cases (selection)

## Bad Wildbad (Karlsruhe network) / Germany



**“Play street” with special allowance 20km/h!**

# Traffic calmed zone cases (selection)

Freiburg / Germany



No segregation, no special allowance ...



# Traffic calmed zone cases (selection)

## Kassel / Germany



**Segregated track within traffic calmed area(s),  
speed allowance 30km/h.**

# Traffic calmed zone cases (selection)

## Zwickau / Germany



**Segregated track in between of two pedestrian zones; speed allowance 30km/h!**

# Traffic calmed zone cases (selection)

## Le Mans / France



**Traffic calmed street with one way car traffic (delivery ...); speed limit tramway 20km/h!**

# Overview of results

Tramway speeds in pedestrian areas (mixed areas)

		Pedestrian zone	"Meeting zone"	Mixed area	Remarks
Bremen	Germany	30km/h			Special allowance
Darmstadt	Germany	15km/h			Special allowance, also buses
Freiburg	Germany	25km/h			Special allowance
Karlsruhe	Germany	25km/h		20km/h/30km/h	Special allowance
Kassel	Germany	25km/h		30km/h	Special allowance
Mannheim	Germany	25km/h			Special allowance
Rostock	Germany	10km/h			Was 20km/h before but allowance reduced to 10km/h
Würzburg	Germany	25km/h			Special allowance
Zwickau	Germany	20km/h		30km/h	Special allowance
Graz	Austria	20km/h			Special allowance
Linz	Austria	30km/h	30km/h		Special allowance
Amsterdam	Netherlands	30km/h			Special allowance
Angers	France	20km/h / 30km/h			also 25km/h
Besancon	France	15km/h / 20km/h	30km/h		
Le Mans	France	20km/h		20km/h	Mixed area with 30km/h for cars (limited access), tramway lower!
Nice	France	20km/h / 30km/h			
Strasbourg	France	25km/h			



**“Mischen impossible”** © Alain Groff, Basle

**- a Norwegian problem ...**

**Norwegian regulations do not know the three types of alignments:**

**independent, segregated and shared.**

**They use only independent or shared... (even if independent looks like segregated or shared!)**

**A tramway is either a bus or a railway but there is no status in between!**

# Looking like a pedestrian zone, but ...

Oslo



**Speed limit tram: 20km/h? 25km/h? 30km/h?**

# Looking like a pedestrian zone, but ...

Oslo



Source: Google Earth (left) / Oslo Kommune PBE (right)

**... one area but regulated with 4 types of zones!**

# Looking like a pedestrian zone, but ...

## Bergen



Source: Bert Nielsen, Gothenburg (right)

**... a railway alignment between two pedestrian zones! Speed limit 15km/h!**



# General conclusions

There is clear evidence that operating tramways through pedestrian zones or more generally traffic calmed areas is kind of “usual business”.

It becomes also evident that there are different regulatory approaches available to achieve design-wise rather identical technical solutions.

All three options allow the proper integration of tramways with speeds in a range of 20-30 km/h.

Special allowances for tramways appear to be common for all three categories.

# General conclusions

**It is apparent that the allowance of higher speeds for tramways in any of the categories (options) is rather independent of the legal framework in different countries.**

**The different approaches to some extent mean nothing but moving towards an identical result from different starting points. The difference is in the need or non-need for exceptions and how understandable the legal layout will be on site.**

**A street, which is formally not a pedestrian zone but where car access is completely forbidden will factually become a mere pedestrian zone without the walking speed limit!**

# General conclusions

Which solution may be appropriate at a specific location is depending both on the legal framework at stake in a particular city and the local conditions.

If there is little need for car access as there are no residential buildings or shops one may prefer the classic pedestrian zone, if there is a lot of residential and delivery car traffic a “meeting zone” could be more appropriate.

From a pure tramway perspective a pedestrian zone may be easier to handle than a meeting zone, as car traffic is more limited.

# General conclusions

**In any case it is crucial that the implemented urban design supports the regulations – just putting up signs without changing the street appearance will not succeed.**

**The same, however, is valid in the other direction: a street design which gives another impression to the users than intended by the legal layout (Oslo, Bergen ...) can be seen as not safe for other reasons...**

**Thank you and discussion ...**

# Author and copyright

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