

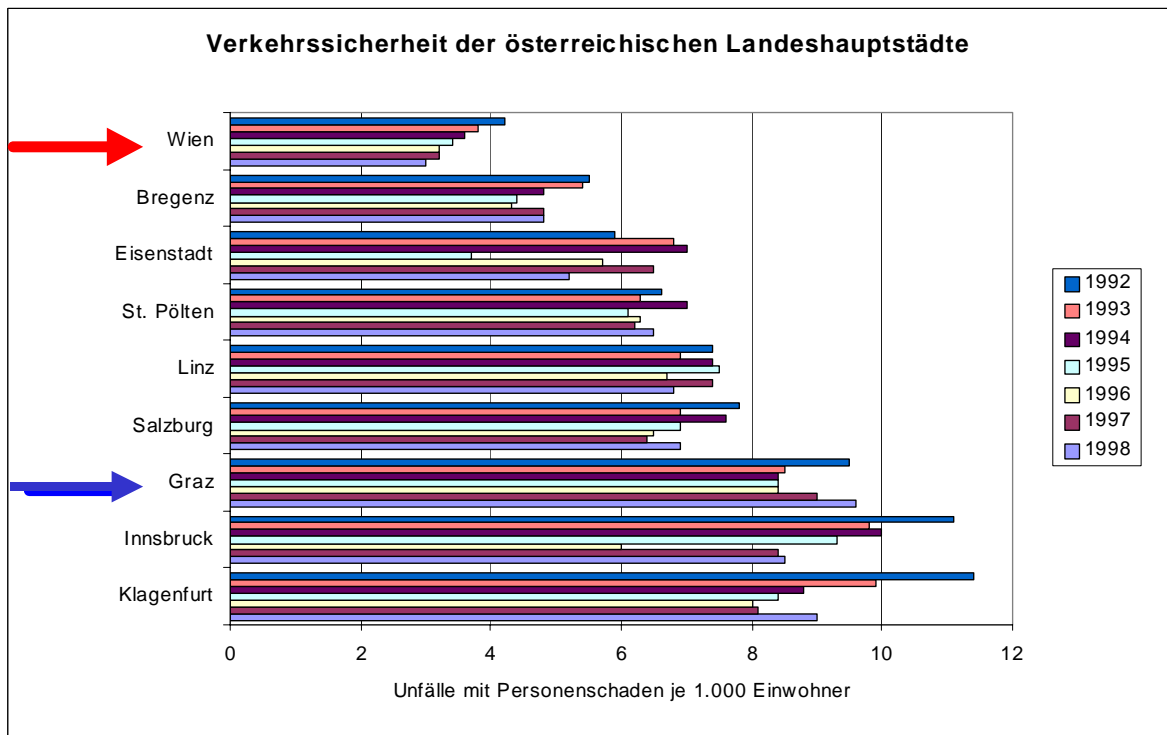
# Why is the Traffic Safety in Different Cities so Different?

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## 1. Introduction

The traffic policy measures in most of the Austrian cities are rather similar. All cities have a speed limit of 50 km / hour and more or less all of the cities have introduced 30 km / hour zones. Most of the cities have no through traffic since the motorways or the through roads have been built. The parking regulations are similar. But if we look at the excellent figures there are big differences among the cities (fig. 1). What is the reason for this difference?

## Austrian Cities - Inhabitants

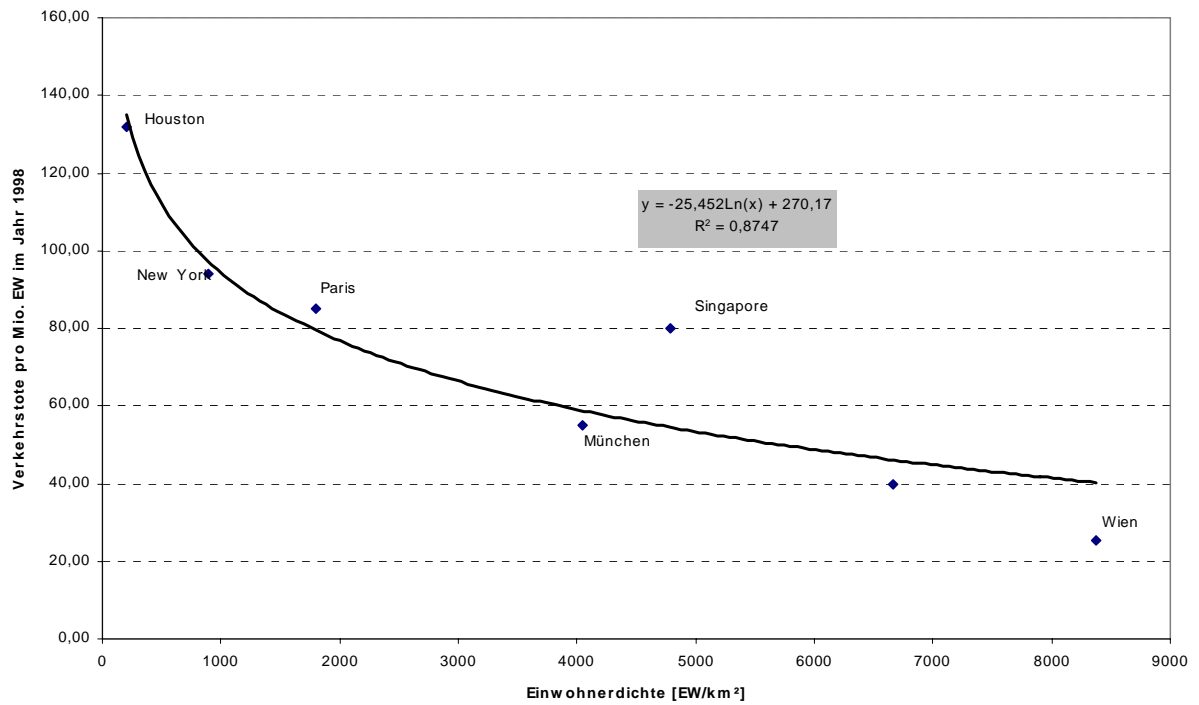


## 2. Factors influencing traffic safety of cities are population densities

Cities with a high density of population have general more opportunities for pedestrians, cycles and public transport. Since this, modes are safer than cars, this factor will influence the accident rate. It can be shown, that with increasing density of cities the accident rate is decreasing.

# Pop. Density – Accident rate

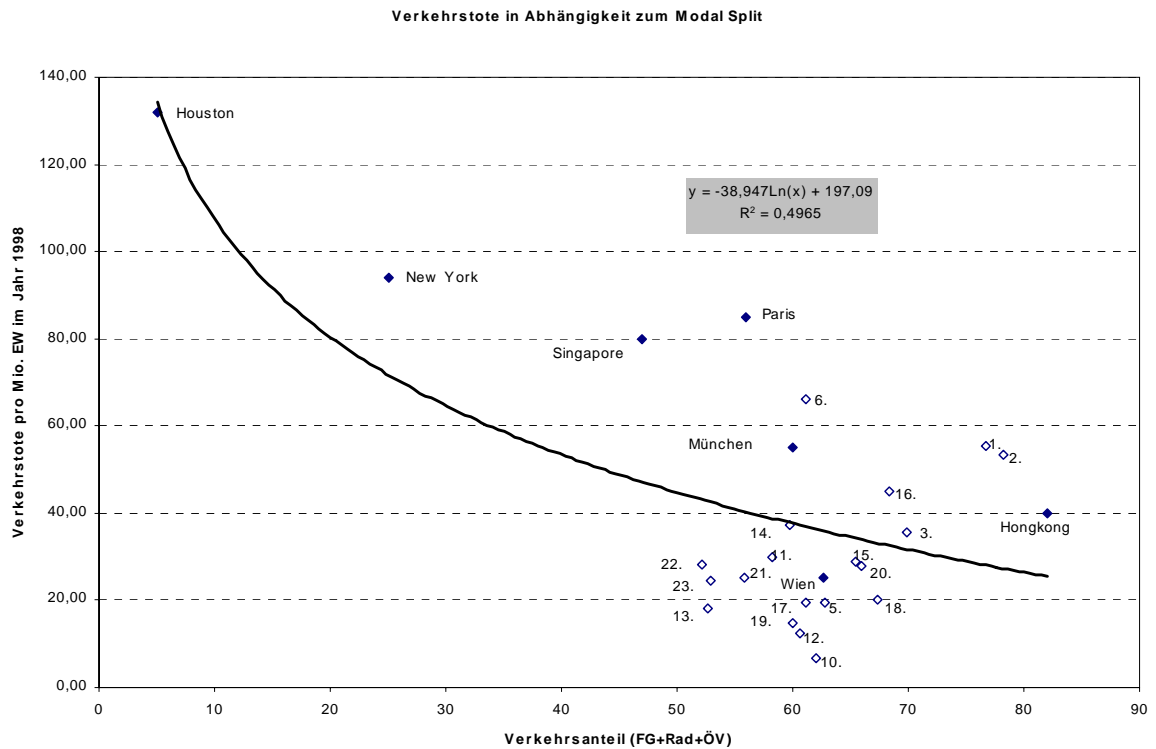
Verkehrstote / Einwohnerdichte (ohne Bezirke)



### 3. Modal split

If cities are organised in a proper way, they can fulfil their functions which much less car traffic than bad organised cities. Since car traffic is the accident producing factor the modal split will influence of course the accident rate.

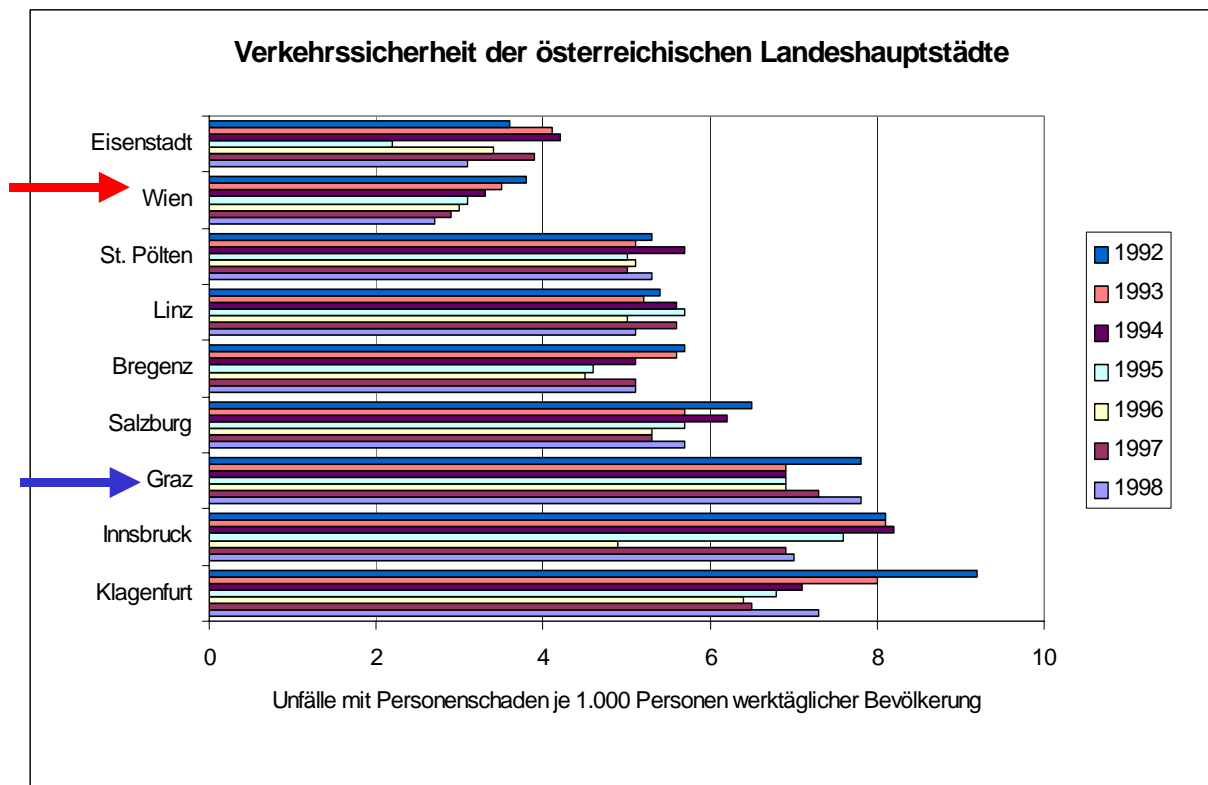
# Modal split – accident rate



Increasing share of public transport trips decreases the accident rate. This is a contribution to the traffic safety.

Another effect could be the size of the city. The bigger cities have more public transport than smaller ones. It can be expected, that the accident rate of bigger cities is below the accident rate of smaller ones. But if we look to the figures of Austrian cities, the biggest city with 1.7 millions inhabitants (Vienna), and the smallest one with 11.000 population (Eisenstadt) have the lowest accident rates. Graz, which made a lot of public relation for traffic safety as much worse are accident fears, which have not changed, although an areawide 30 km / hour speed limit which has been introduced in the city.

## Austrian Cities workday population



There must be other causes which can explain the differences.

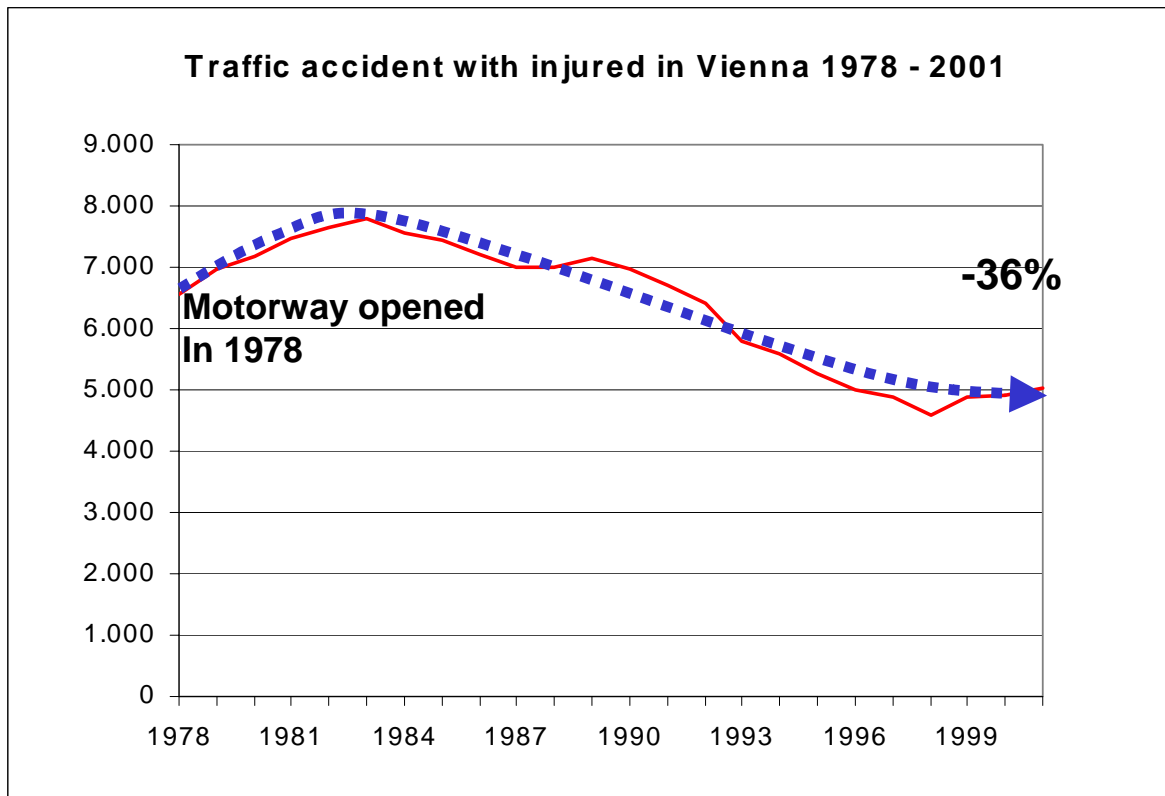
#### 4. Continuity and long term strategy

The cities of Vienna and Eisenstadt have a certain continuity and traffic policy based on fundamental scientific findings from the last decades. Vienna of course has rather good preconditions, excellent public transport system to unhand traffic safety. Eisenstadt has introduced a very big pedestrian area and traffic calming measures, together with a good planned and monitored parking policy. The reach is certain level of traffic safety, it is important to follow the comprehensive traffic planning strategy. The key element to improve traffic safety is the reduction of the number of car trips. Due to effective measures car trips have to be replaced by pedestrians, cyclists, and public transport trips. This can be realised by reducing the number of parking places and reducing the space for car mobility by narrowing the roads and keep the level of sidewalks across the roads by elevated platforms or elevated zebra crossings. This are physical measures to keep the driving speed of cars down.



The number of accidents increase, when cities are encouraging car driving by building motorways in the cities or around the cities. This worse effect happened in Vienna after the opening of the main motorway A 23 and A 22 in 1978.

## 36% Reduction in number of accidents 1983-2001

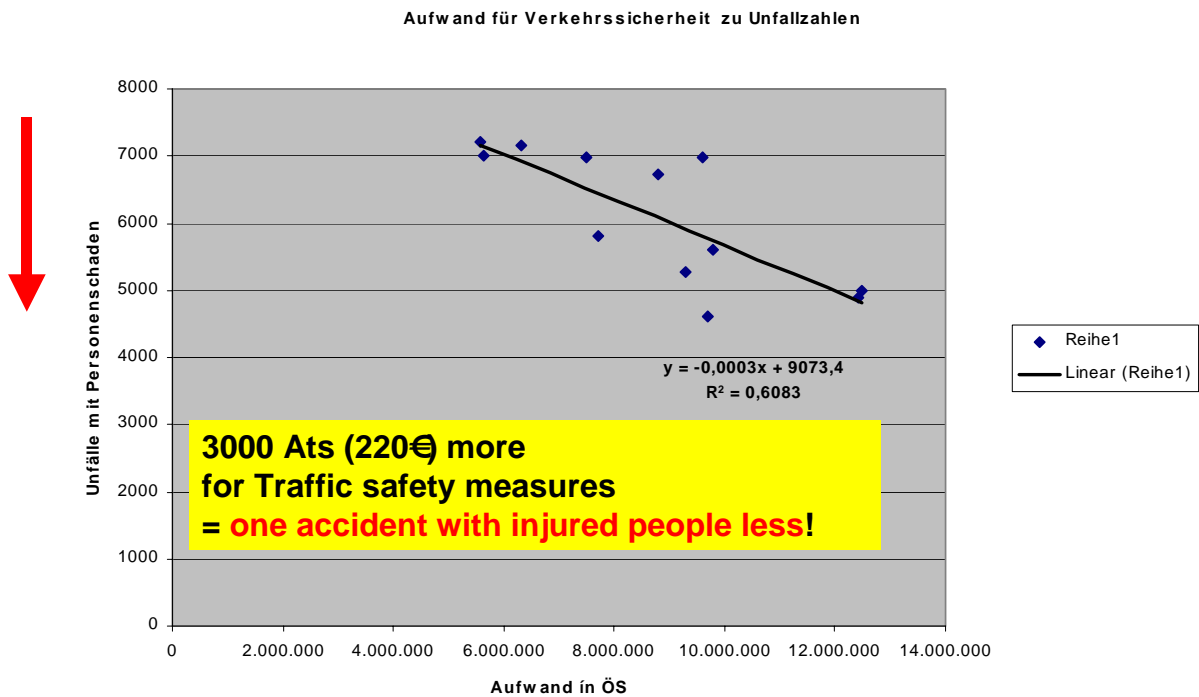


The positive trends in accident rates was stopped since more car trips were produced due to the new transport infrastructure. The result was more accidents in Vienna. After a period of nearly one decade the city of Vienna was able to overcome this negative effect of motorway and the traffic safety. This motorway generated a lot of car traffic in Vienna, till the same situation was reached as before. Then traffic safety measures became effective again.

### 5. Efficiency on the operative level

Efficiency on the operative level can be reached by establishing a powerful division in the city administration for traffic safety measures responsible for traffic safety audits in planning and in operation . this division must have a certain budget to have a influence on measures. This investment for traffic safety measures has an excellent rate of return.

# Is investment into Traffic safety measures effective?



**More money for traffic safety – less accidents!**

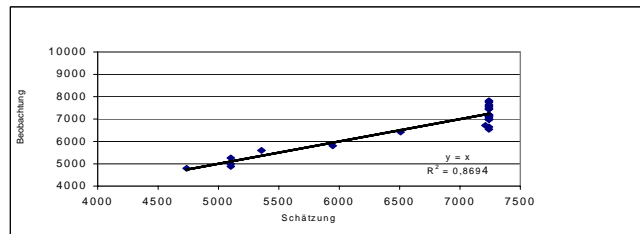
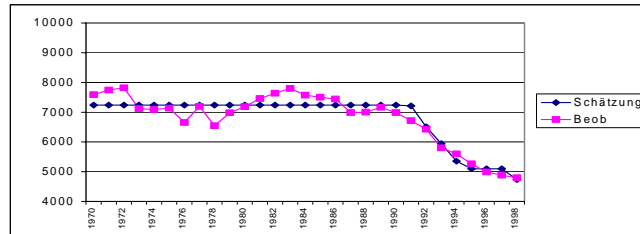
One EURO investment for traffic safety measures pay back to the society about 50 EURO due to the less accidents victims and injured people. Another strong effect on the decrease of the accidents is the effect of police enforcement on speed. When speed control was improved by using laser-pistols the number of accidents with injured people decreased rather soon.

## Speed enforcement has strong effects

Regression

Abh. Variable: UNF

Variablen: LASER

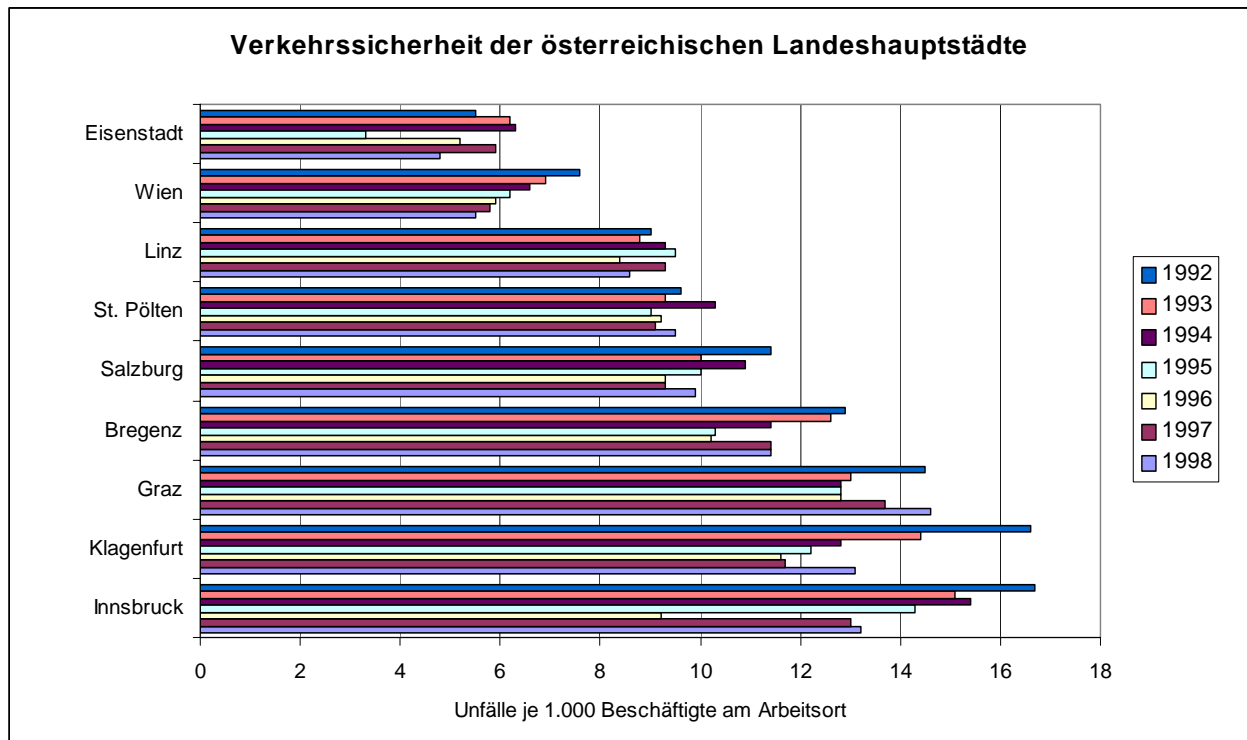


When car drivers became aware, that each kind of overspeeding will produce a fine or loss of driver license, they drive much more careful.

Concerning this strategic level there are big differences between the cities. Vienna and Eisenstadt have a continuous strategic transport planning based on sound scientific findings. The other cities in Austria have changed their planning strategy from time to time, although their goals are more or less the same, but the measures and the activities are quite different. The worst situation concerning traffic safety indicators are in the cities of Graz, Klagenfurt and Innsbruck.



## Austrian Cities working population



All these cities are following in principle the tradition of the assumptions of traffic planning with all the lack of understanding of system effects. Instead of reducing the speed, consequently reducing the space for car driving, the police has changed some times. After a period of following the right principles they introduced the common popular policy to keep car traffic flowing and provide additional parking places. This produces of course car trips and these car trips produce accidents. Some of the cities have started to introduce modern future oriented policy principles and measures in the 70ies, but they fall back into the archaic non scientific American oriented principles of transport planning in the 80ies and 90ies. The verbal transport policy is more or less the same like in the safe cities but in reality - and this is important - they follow the wrong way of transport solutions of the late 60ies of the last century. The result is obvious.

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