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# Traffic Safety Activities in Austria – also applicable in Egypt?

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## Austria (= Österreich) - some general information

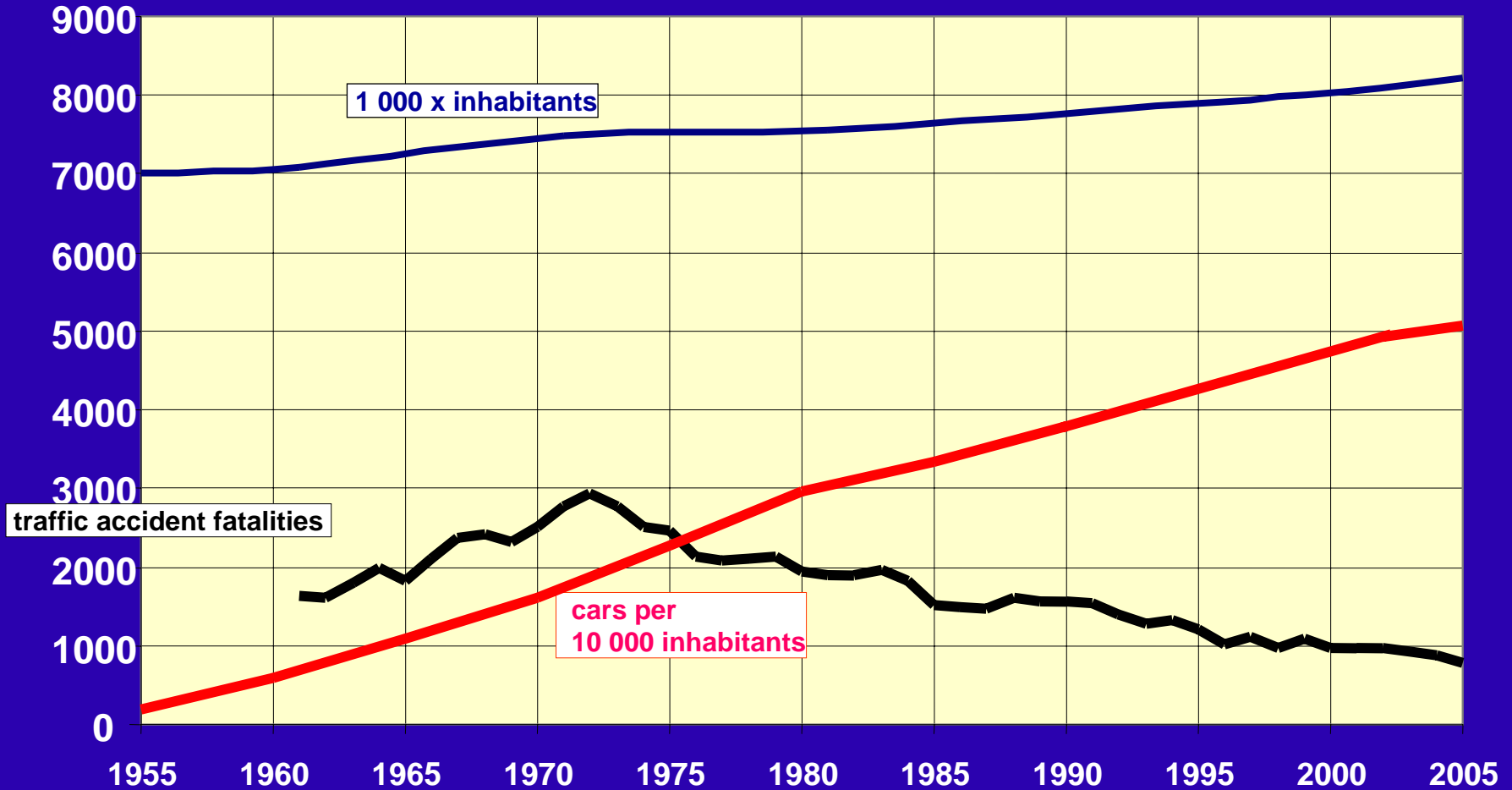
- Republic; since 1995 member of EU
- total area 83 900 km<sup>2</sup>, about 2/3 mountainous; 43% wood; 2% waters
- population 8.3 million
- road network:
  - ~ 2 100 km motorways
  - ~ 105 000 km highways, roads and streets
- 5.9 million motorized vehicles



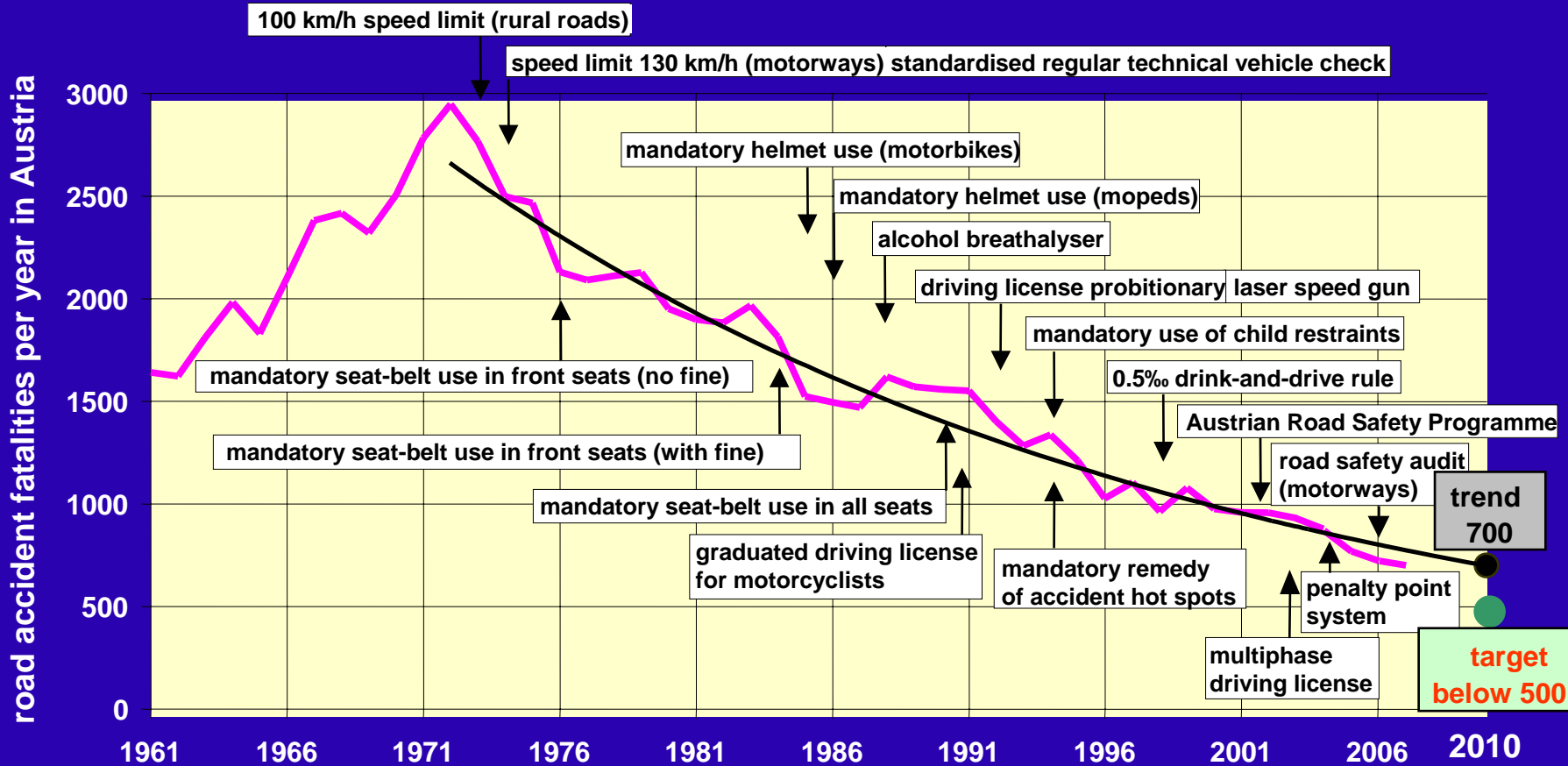
# Contents

- Traffic safety in Austria (brief survey)
- Traffic safety measures (some examples)
- Improvement potentials in Egypt
- Conclusions

# Development in Austria



# Road safety measures in Austria



# Basic requirement for increasing traffic safety: **AWARENESS**

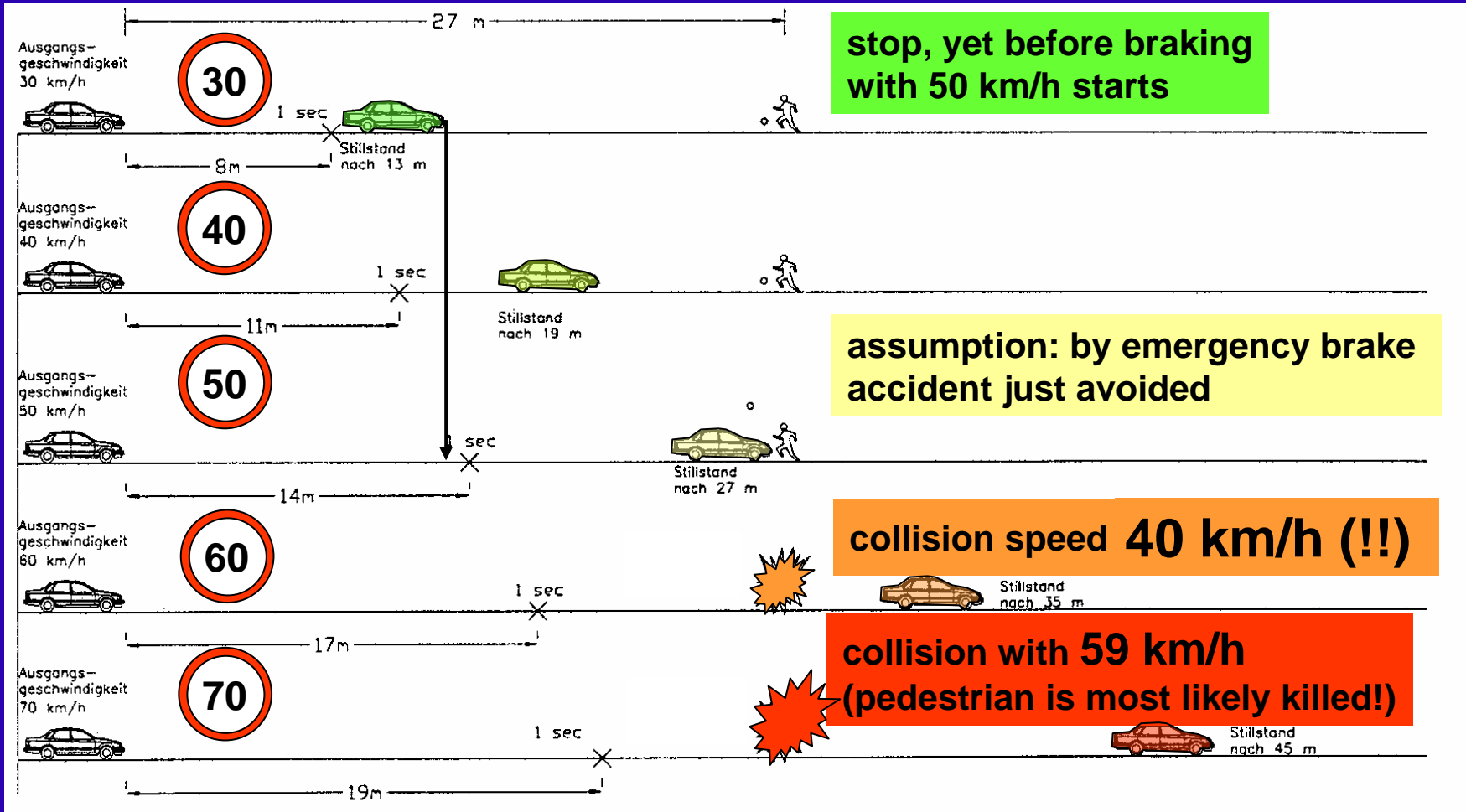
information + education to generate

## **TRAFFIC SAFETY AWARENESS:**

- legislator -> safety related legal regulation
- executive forces / police -> enforcement
- road authorities ->  
road furniture, maintenance, working sites
- road engineers -> safer road design
- vehicle engineers -> safer vehicles
- road users -> driving skills, safer behaviour

# Impact of speed

dry surface, 1 sec reaction time



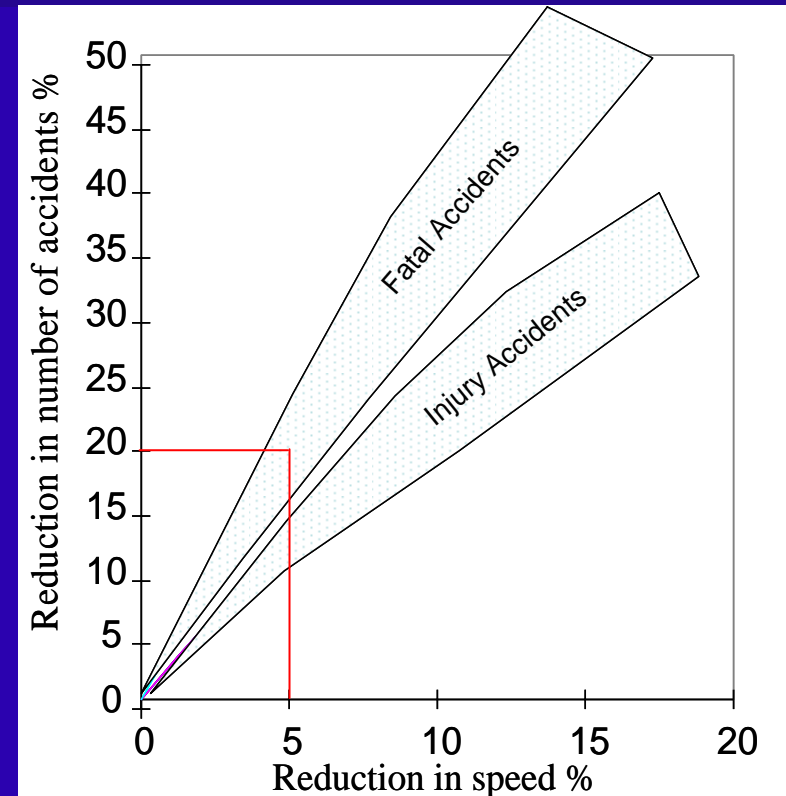
# Impact of speed

## “Power model”

(Nilsson 2004)

$$Y_1 = \left( \frac{V_1}{V_0} \right)^4 Y_0$$

$Y_1$  = fatal accidents after,  $Y_0$  = fatal accidents before,  
 $V_1$  = speed after,  $V_0$  = speed before



minus 5% average speed  $\cong$  minus 20% fatal accidents

# Speeding awareness campaign

35 mph instead of 30 mph (56 km/h instead of 48 km/h)

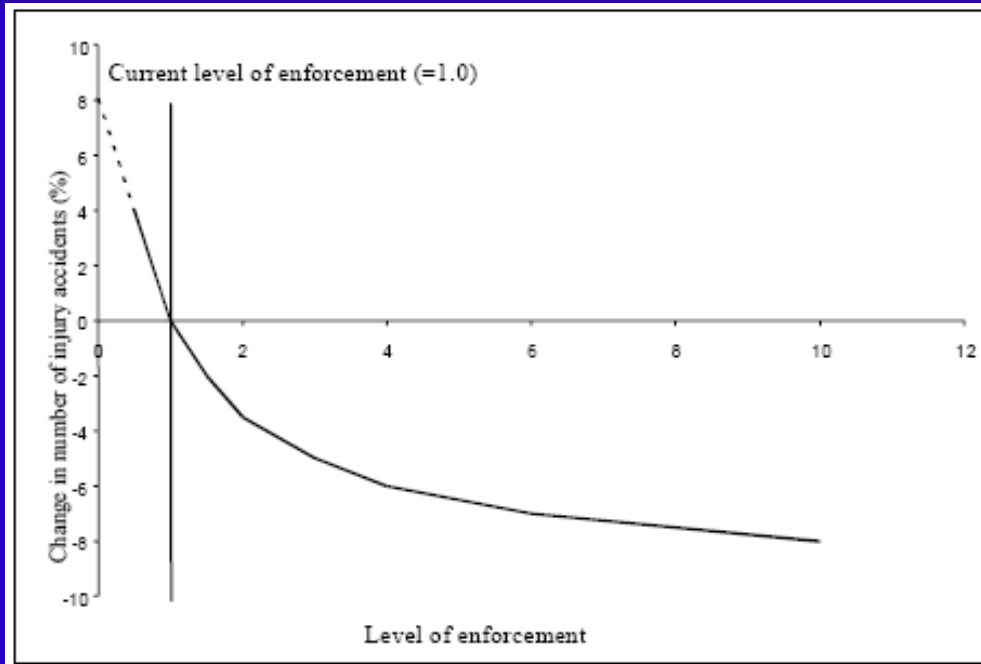


# Speeding awareness campaign

110 km/h instead of 90 km/h



# Impact of Speed Enforcement



(OECD 2006)

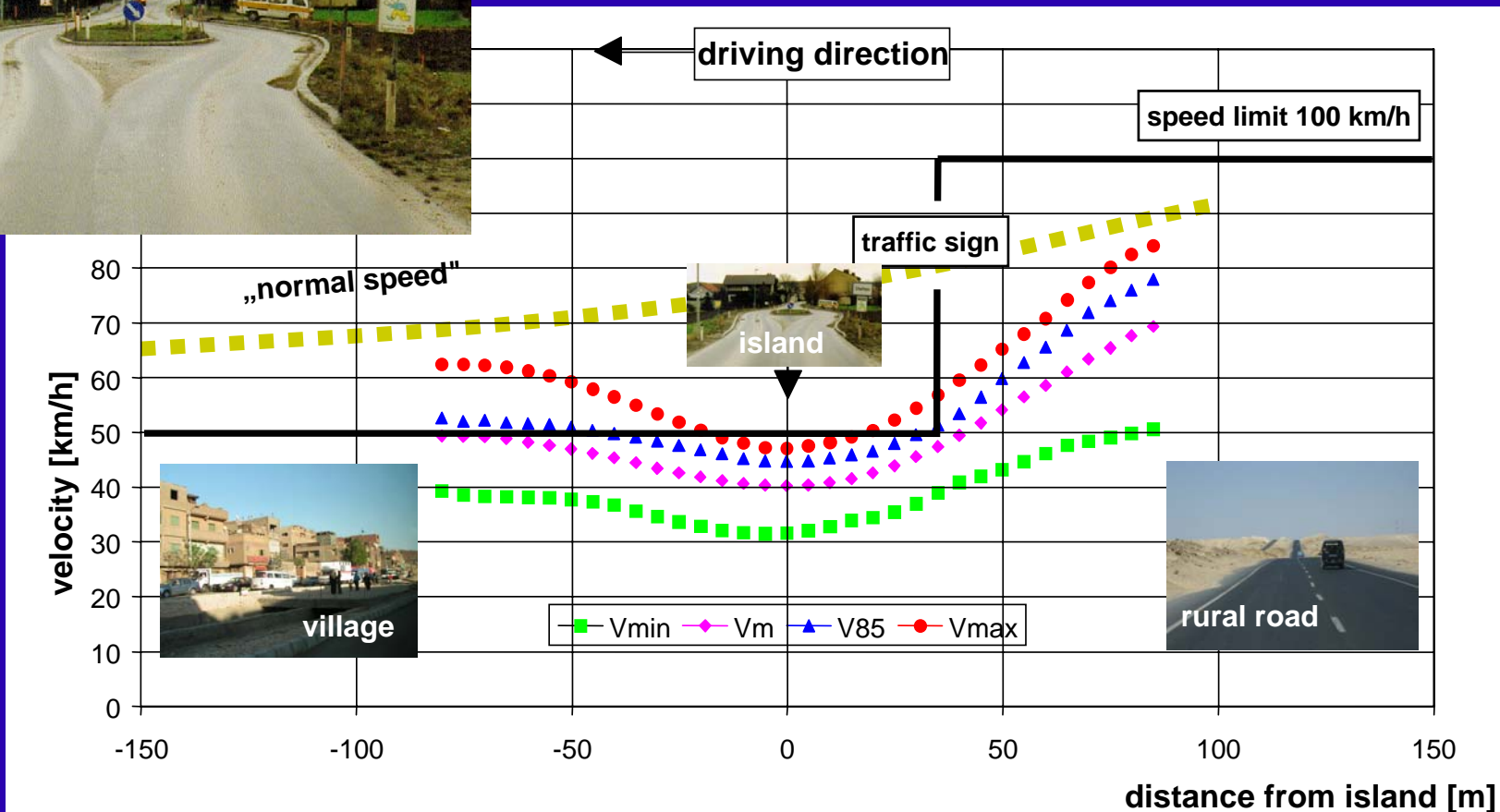
assuming a low current level of speed enforcement  
 → yet little enforcement's improvement results in  
 considerable positive effect on traffic safety



# Speed and traffic calming by road design measures



'braking islands'



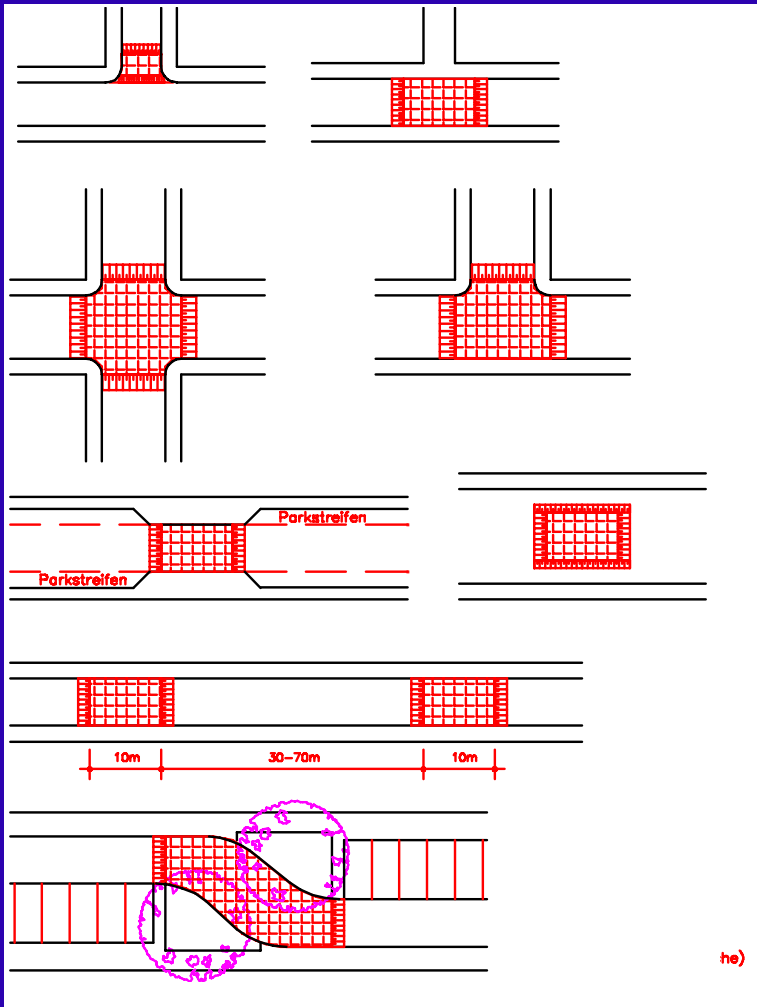
# Speed and traffic calming by road design measures

## Lane deviation

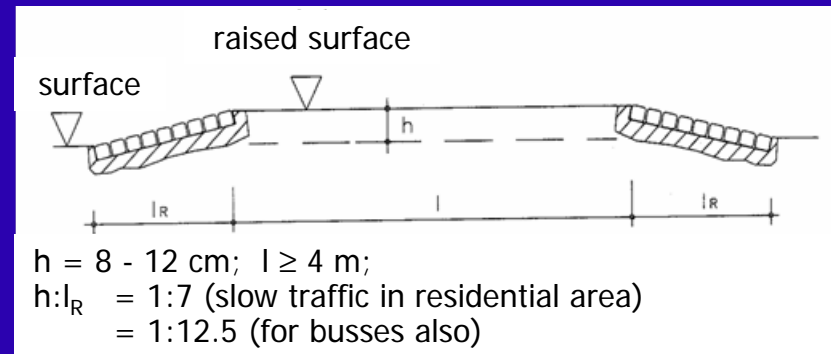
(e.g. by alternating arrangement of car parking)



# Speed and traffic calming by road design measures



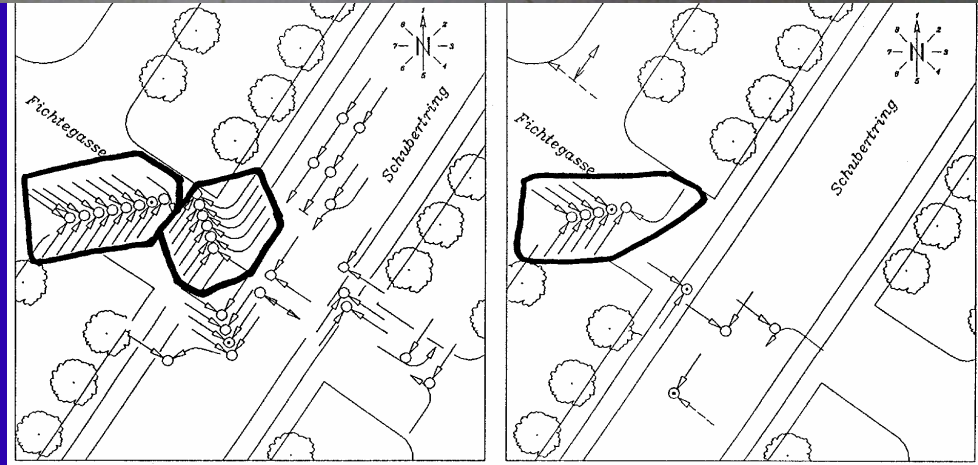
## raised surface



## raised pavement



# Example: accident hot spot reorganization by raising pavement and cycle track

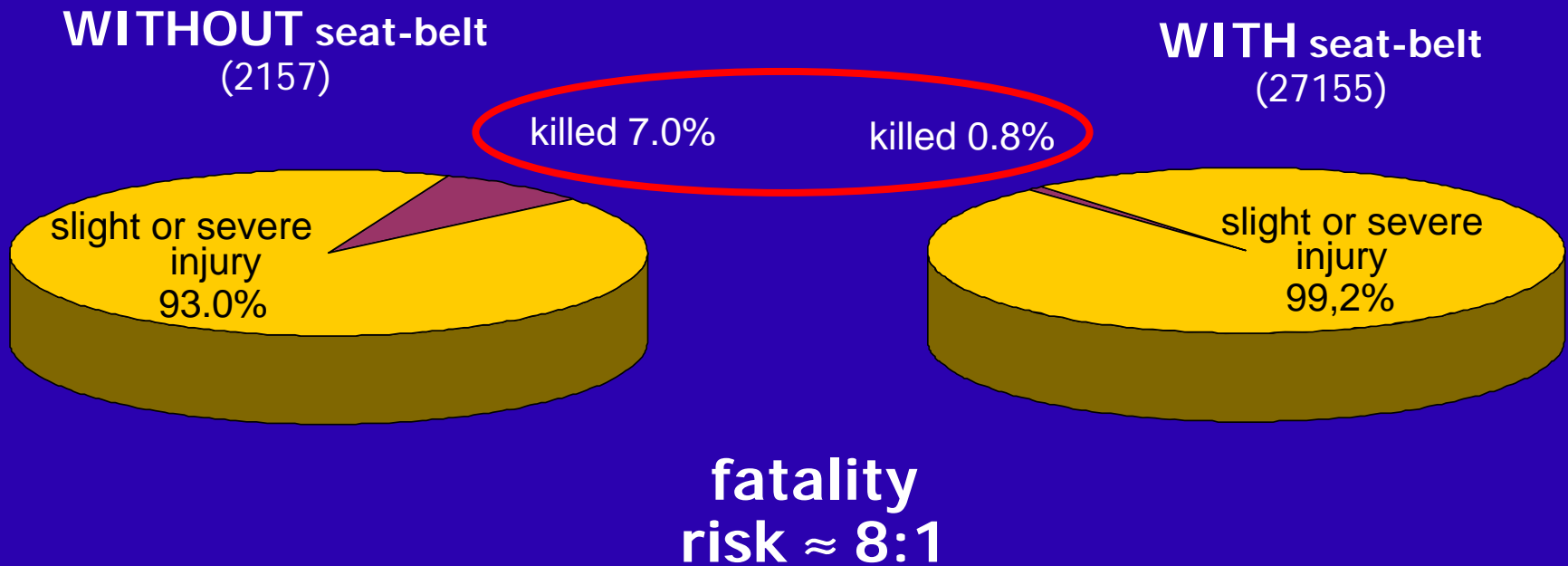


**before:**  
3.1 injury accidents per year

**after:**  
1.1 injury accidents per year

# Seat belt use

Austria 2008: Car occupants involved in an accident



# Seat belt use



Do people know?



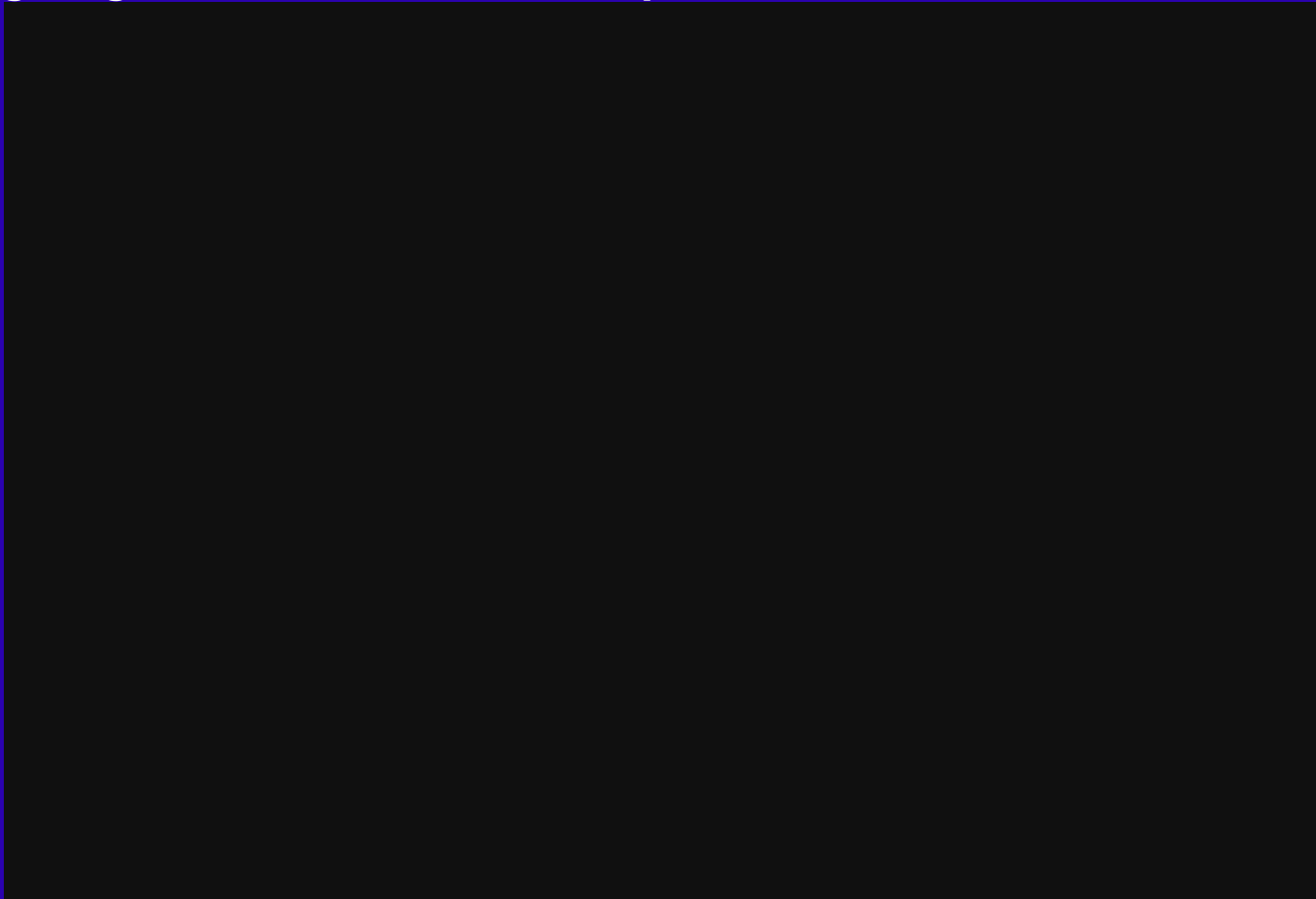
driver seems belt up ...



... but THAT way in case of accident useless!

# Seat belt awareness campaign

Information + Encouragement:  
campaigning seat-belt use via TV-spots



# Seat belt awareness campaign

Information + Encouragement:  
campaigning seat-belt use via TV-spots



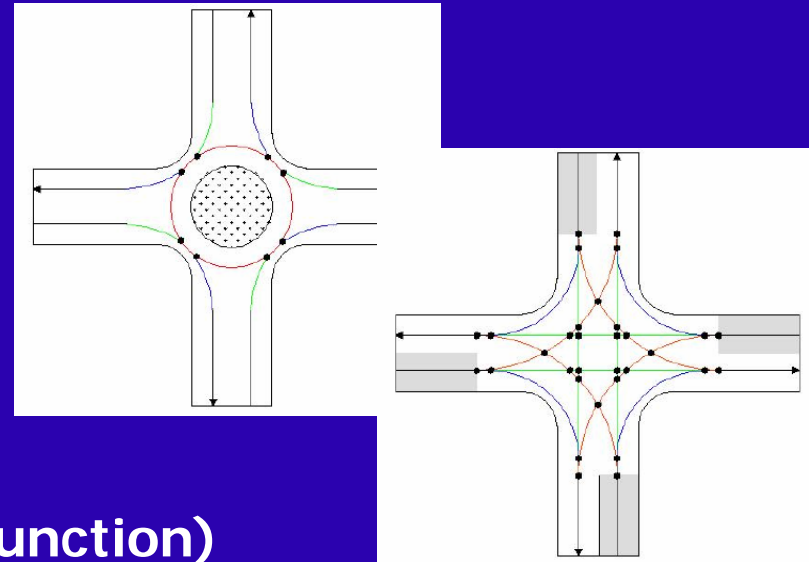
# Roundabouts



Austria 25 years ago: hardly anyone *knew* a roundabout  
today: not anyone knows the *number* of roundabouts

## Attributes of roundabouts:

- 8 points of conflict instead of 32
- speed reduction for *all* directions
- decrease of (severe) accidents up to 100%

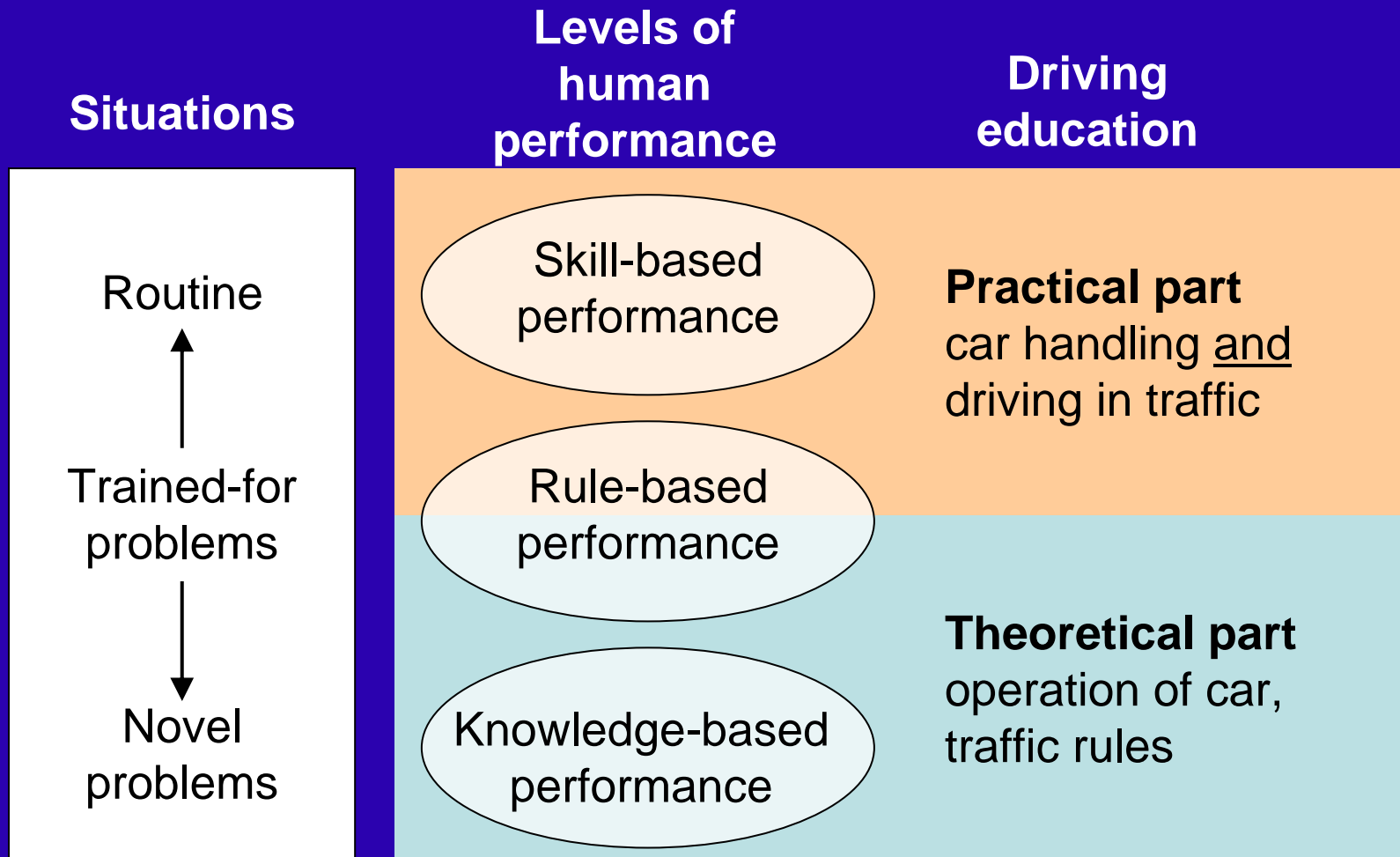


- high capacity ( $\approx$  signal controlled junction)
- flexibility of shape and dimension → wide field of application

# Roundabouts



# Driver's education



# Examples of improvement potential in Egypt



# Conclusion

to increase traffic safety

- permanent and consistent activities are essential
    - raise awareness
    - legislation / regulation
    - enforcement
    - engineering
    - education / training
    - encouragement
    - evaluation of success
  - on local / regional / national levels
- is a 'never ending story',  
but it is never too late to start / enhance activities!



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