



ROAD SAFETY STRATEGIES: FROM DIAGNOSIS TO THERAPIES TO ACCIDENT PREVENTION

Dr.-Ing. Jean Emmanuel Bakaba

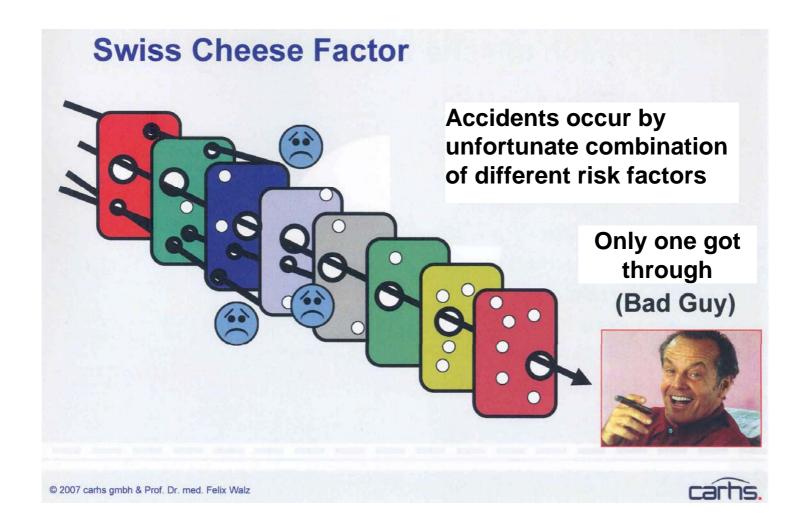
→ Department for Accident Research, German Insurance Association (GDV), Referent, <u>e.bakaba@gdv.de</u>, www.gdv.de



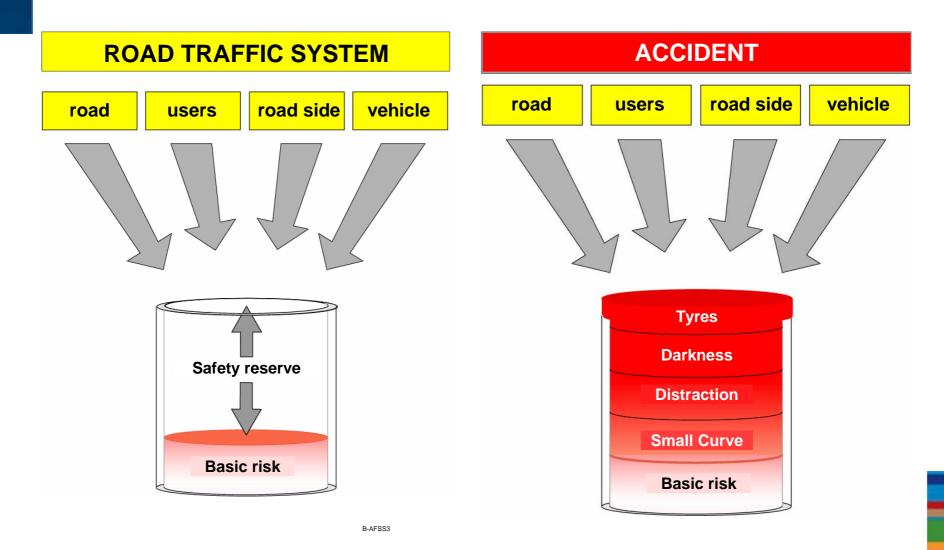
→ Alliance for renewable Energies and road Safety in Africa (AESA), <u>www.aesa-online.org</u> Chief executive board, <u>bakaba@aesa-online.org</u>



Road Traffic Accidents are rare !!!

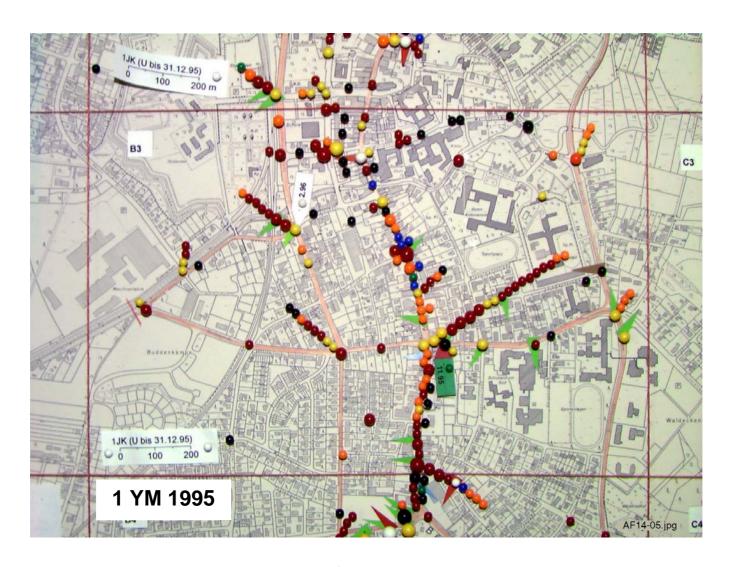


Road Accident Influence Factors



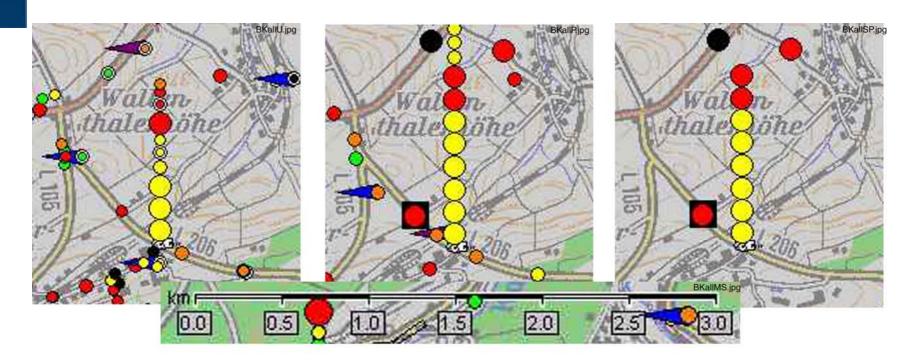
© Dr.-Ing. Jean Emmanuel Bakaba, AESA, www.aesa-online.org

Documentation: Accident Type Map (12 months)



© Dr.-Ing. Jean Emmanuel Bakaba, AESA, <u>www.aesa-online.org</u>

Accident Documentation: Accident Type Maps



1 YM (A) 1996

3 YM (P) 1994 - 1996

3 YM (SP) 1994 - 1996

Accident-type maps for rural junction (without signal control)

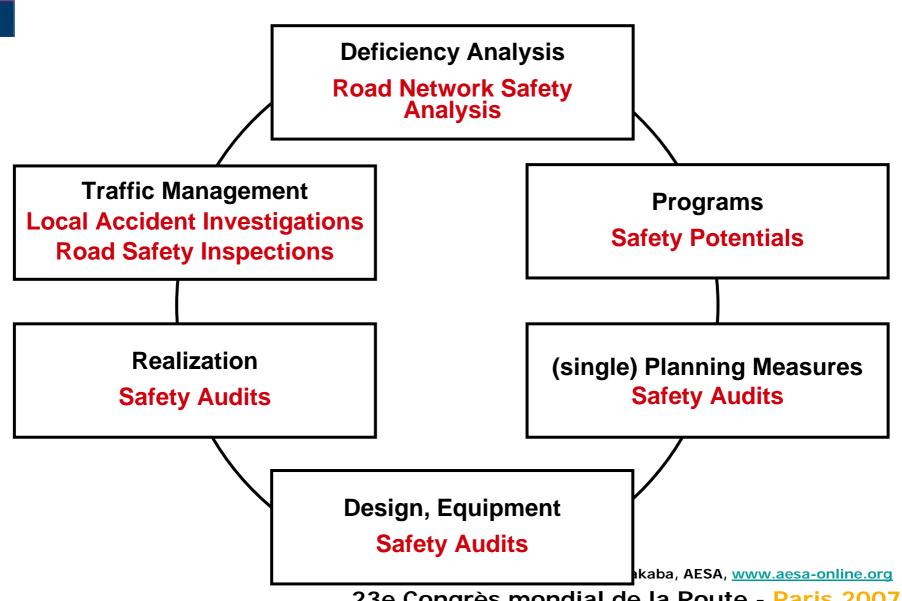
Documentation: Accident Type Identification

ACCIDENT TYPES

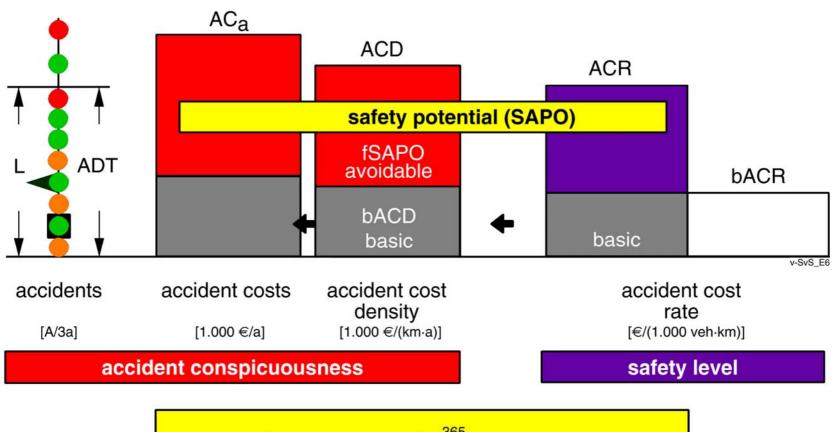
- 1 Driving accident
- 2 Turning accident
- 3 Entering / crossing accident
- 4 Crossing over accident
- 5 Accident caused by stopping / parking
- 6 Accident in longitudinal traffic
- 7 Other accident

AF23-05E

Road Safety Management System

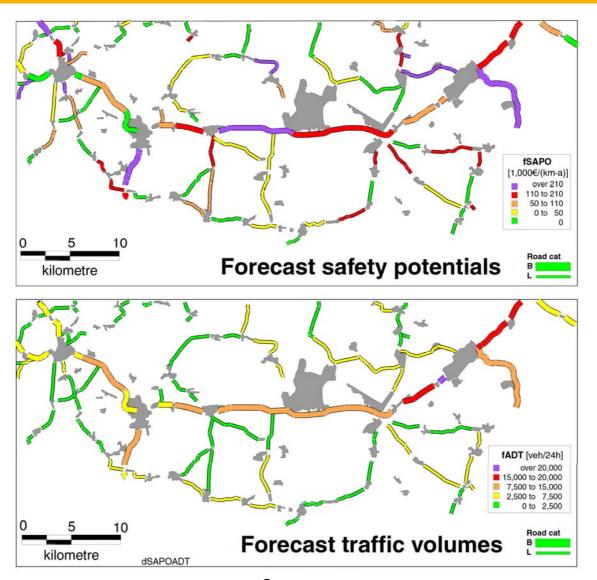


Diagnosis: Road Network Safety Analysis



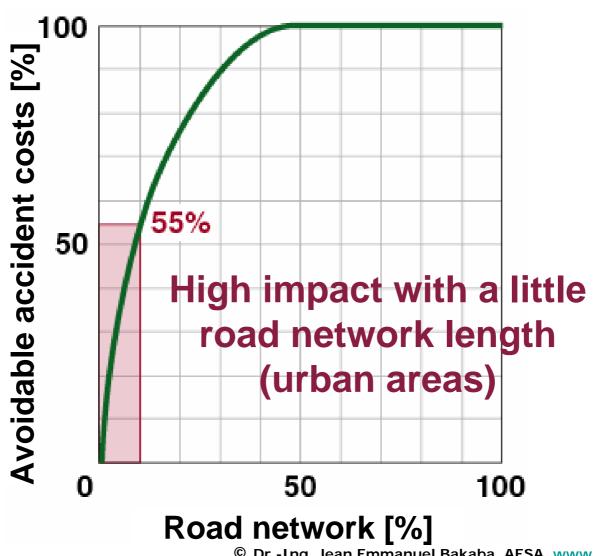
 fAC_a \leftarrow L·fSAPO $\leftarrow \frac{365}{10^6} \cdot ADT \cdot (ACR-bACR)$

Diagnosis: Road Network Safety Analysis



© Dr.-Ing. Jean Emmanuel Bakaba, AESA, www.aesa-online.org

Diagnosis: Road Network Safety Analysis



© Dr.-Ing. Jean Emmanuel Bakaba, AESA, <u>www.aesa-online.org</u>

Diagnosis - Therapy: Local Accident Investigations



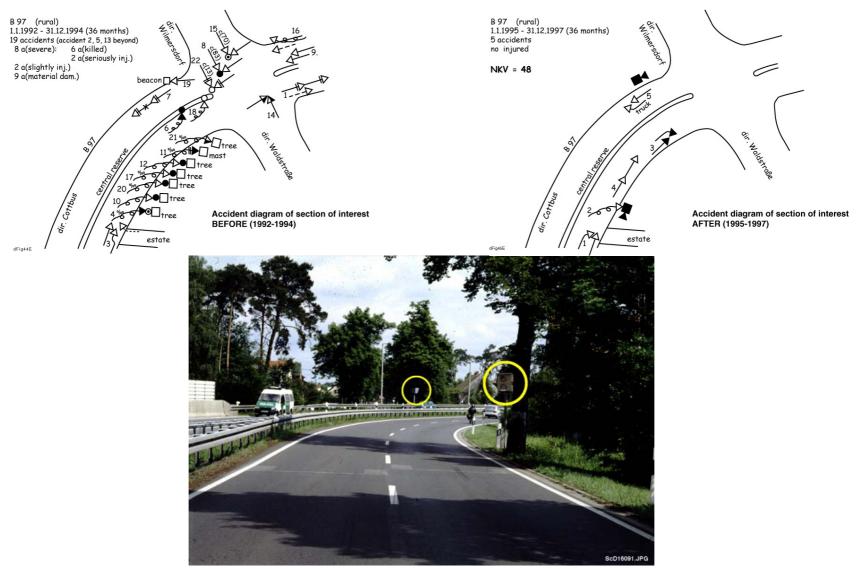






© Dr.-Ing. Jean Emmanuel Bakaba, AESA, www.aesa-online.org

Diagnosis - Therapy: Local Accident Investigations



© Dr.-Ing. Jean Emmanuel Bakaba, AESA, www.aesa-online.org

Prevention: Road Safety Inspections

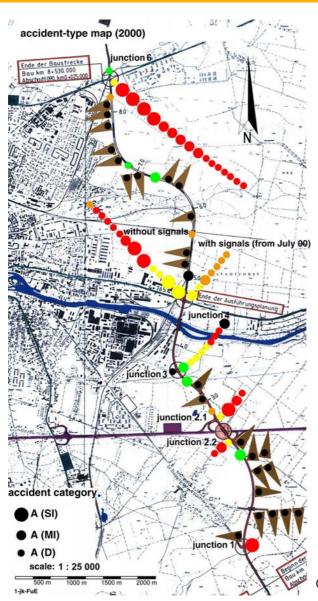




These bends are frequent accident sites with numerous fatalities!

© Dr.-Ing. Jean Emmanuel Bakaba, AESA, www.aesa-online.org

Prevention: Road Safety Audits



1-year accident-type map (2000)

New by-pass road

accidents at junction 6

- 7 A(D)

- 1 A(D) type 2 (turning)

- 1 A(D) type 1 (driving)

© Dr.-Ing. Jean Emmanuel Bakaba, AESA, www.aesa-online.org

Diagnosis - Therapy - Prevention

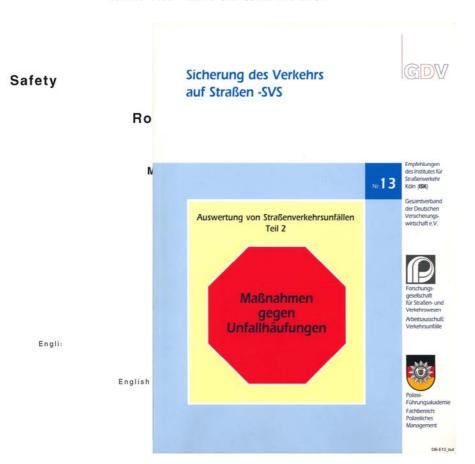
- Accidents are "disease", pathology by road safety engineering
- Local accident investigations only systematically
- In-depth diagnosis and appropriated therapies increase the success of road traffic accident investigations
- Measure effectiveness is very important for controlling
- no "exotic experiments" with road users´ lives, even by planning
- Prevention is better than therapy: Safety Audits and Safety Inspections
- Combating road accidents requires qualified personnel

Road Safety Strategies in Germany

GERMAN ROAD AND TRANSPORTATION RESEARCH ASSOCIATION
WORKING GROUP TRAFFIC ENGINEERING AND SAFETY

GERMAN ROAD AND TRANSPORTATION RESEARCH ASSOCIATION
WORKING GROUP HIGHWAY DESIGN

ROAD AND TRANSPORTATION RESEARCH ASSOCIATION
WORKING GROUP TRAFFIC ENGINEERING AND SAFETY





© Dr.-Ing. Jean Emmanuel Bakaba, AESA, www.aesa-online.org

ROAD SAFETY STRATEGIES FOR ACCIDENT PREVENTION

Worldwide road safety strategies

"On peut bien soutenir son point de vue, mais on ne devrait pas s'asseoir sur celui-ci"



Thank you for your attention!

Road safety manager