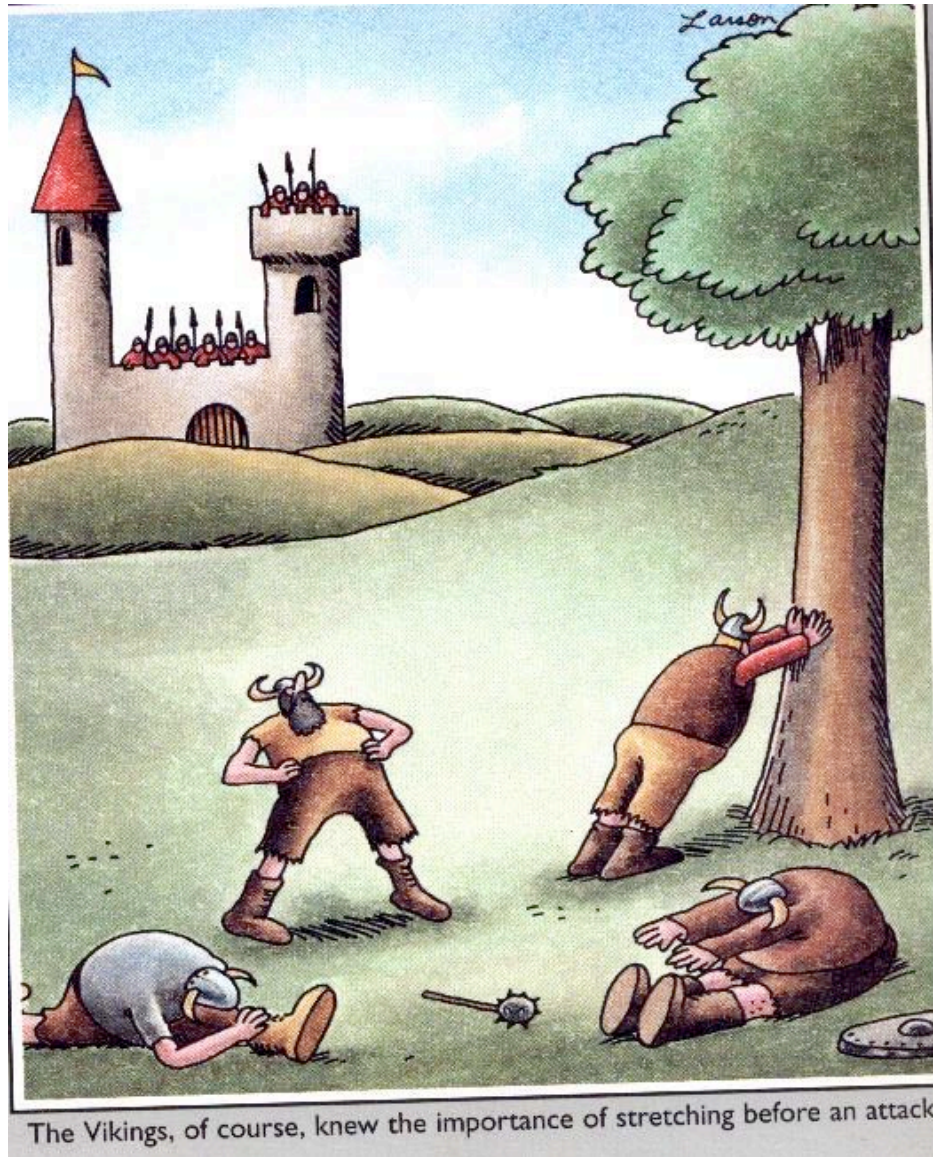


Trauma care from a Nordic perspective...

”Scandinavian countries”

What do we have in common?



The Vikings, of course, knew the importance of stretching before an attack.

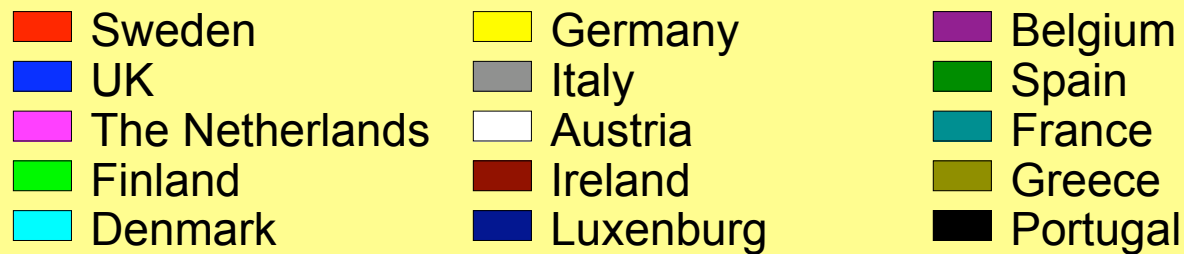
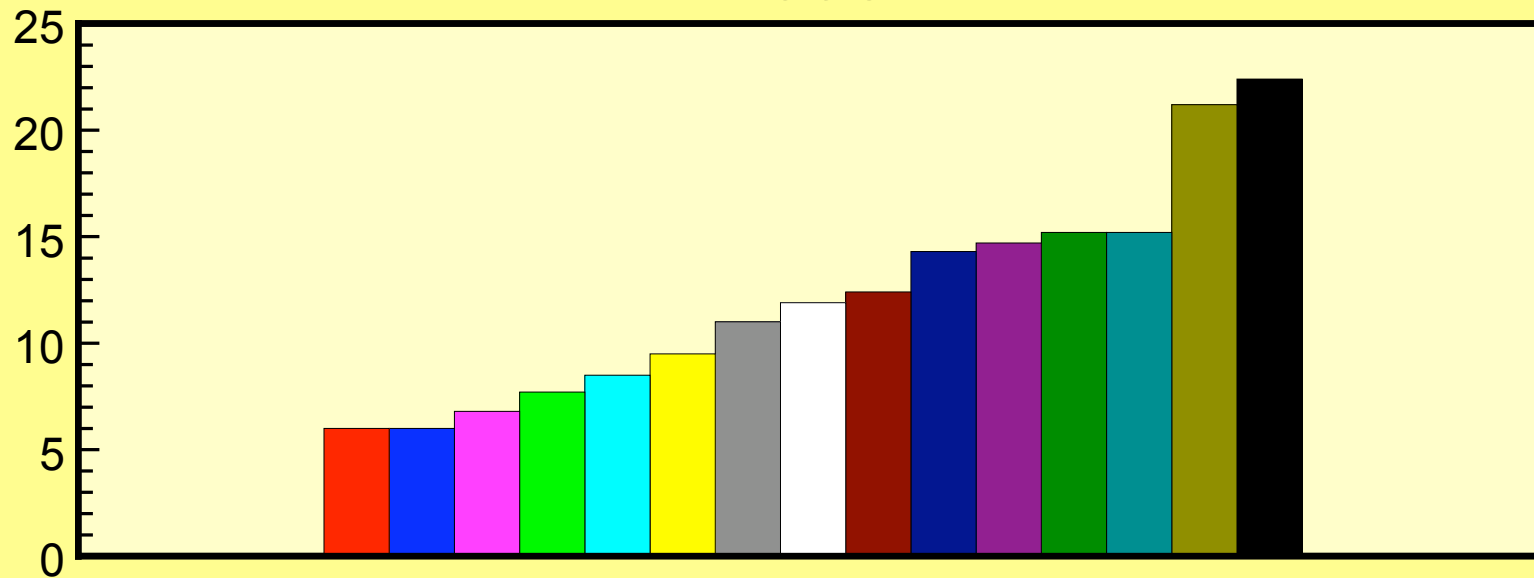
Commonalities

- Similar health care systems
- National Population registries
- Similar populations (in total ~25 million)
- Similar problems providing emergency medical care in areas with very low population density
- "Safe" societies
- To a large extent "unknown quality" regarding trauma care (systems)

However

- A good track record regarding prevention of injuries
- High-tech companies with excellent R&D facilities

Mortality/100.000 inhabitants within EU 1998



In total 42.190 fatalities or 115/day

+ 3,5 million casualties

(Reducing the severity of road injuries. ETSC 1999)

SOCIAL AND ECONOMIC CONSEQUENCES OF ROAD TRAFFIC INJURY IN EUROPE (www.etsc.be)

- [Long-term impacts of traffic injury are poorly documented in all countries.](#) Little is known about these impacts. There are, however, reasons to believe that an increasing number of people live with lasting impairments as a result of traffic injury.

Recommendations for research

- Studies should be made to assess the applicability of various quality-of-life scales for the purpose of describing systematically the long-term impacts of traffic injury.
- Surveys of the general population should be made at regular intervals to determine the incidence and prevalence of lasting impairments as a result of traffic injury.
- Studies should be made to assess the incidence of mild traumatic brain injury as well as its long-term socio-economic consequences.

How much can a human body withstand? (Tolerance)

- Direction of force (frontal-rear-side)
- Individual tolerance (age, concomitant diseases, gender)
- Finite models



”A one-track mind”





20 x G

60-70 x G?



Kenny Bräck



IndyCar Final race, Texas Motor Speedway, 12
Oct 2003



Foto: AP

214G in car/ 193G in helmet body weight 13 tons



Kenny Bräck



214G in car/ 193G in helmet ➔ body weight 13 tons



Foto: AP

IndyCar Final race, Texas Motor Speedway, 12
Oct 2003

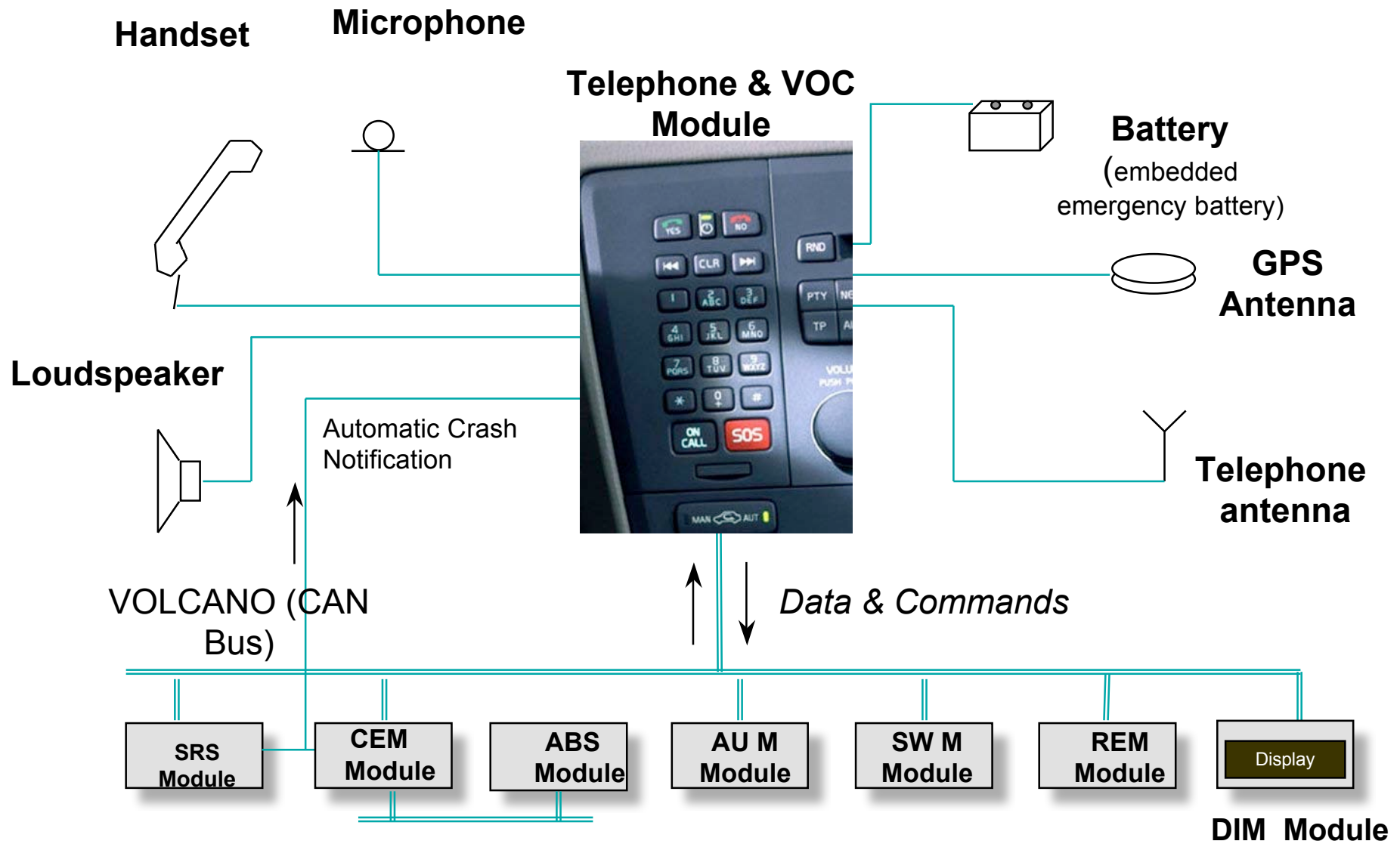
Modern vehicles

- A bunch of moving sensors and computers?
- The outlook for tomorrow?

Onboard systems and abbreviations

- ABS antilock braking systems
- ACC adaptive cruise control
- ASR antiskid regulation
- BAS brake assistant systems (EBA)
- BSI blind spot information
- CMbB collision mitigation by braking
- DSR Dynamic steering response
- DWIS Driver warning information systems
- EBD Electronic brake distribution
- eCall (automatic) emergency call
- ESP electronic stability program
- FAS forward alert system

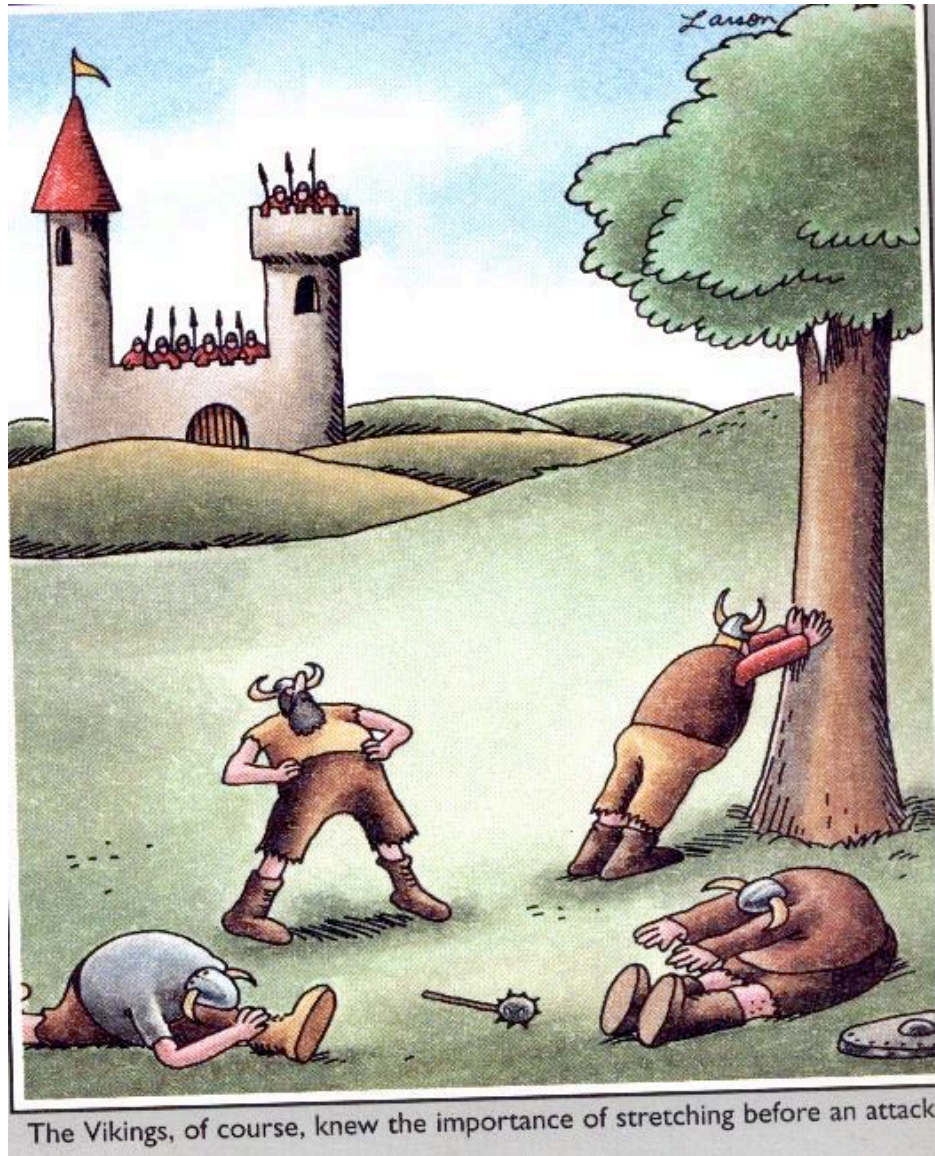
Volvo On Call – Car system



eCall - iRescue

- "Black box" can also transmit more sophisticated data incl medical data
- How far can technology take us?

In summary



The Vikings, of course, knew the importance of stretching before an attack.