



# Young people's risky behaviour: The science behind it

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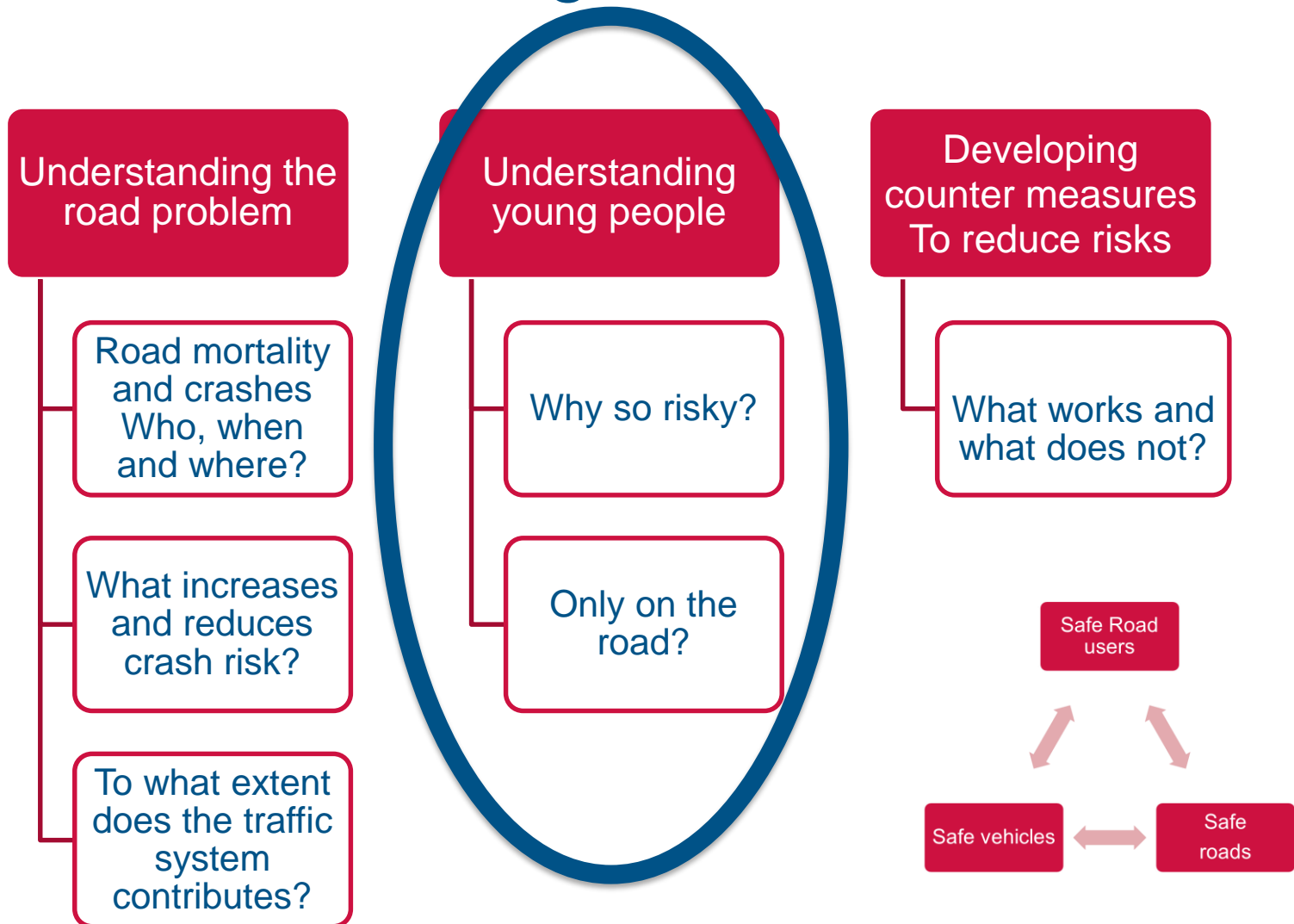
CARRS-Q is a joint venture initiative of the  
Motor Accident Insurance Commission and  
Queensland University of Technology



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# Research: Asking questions

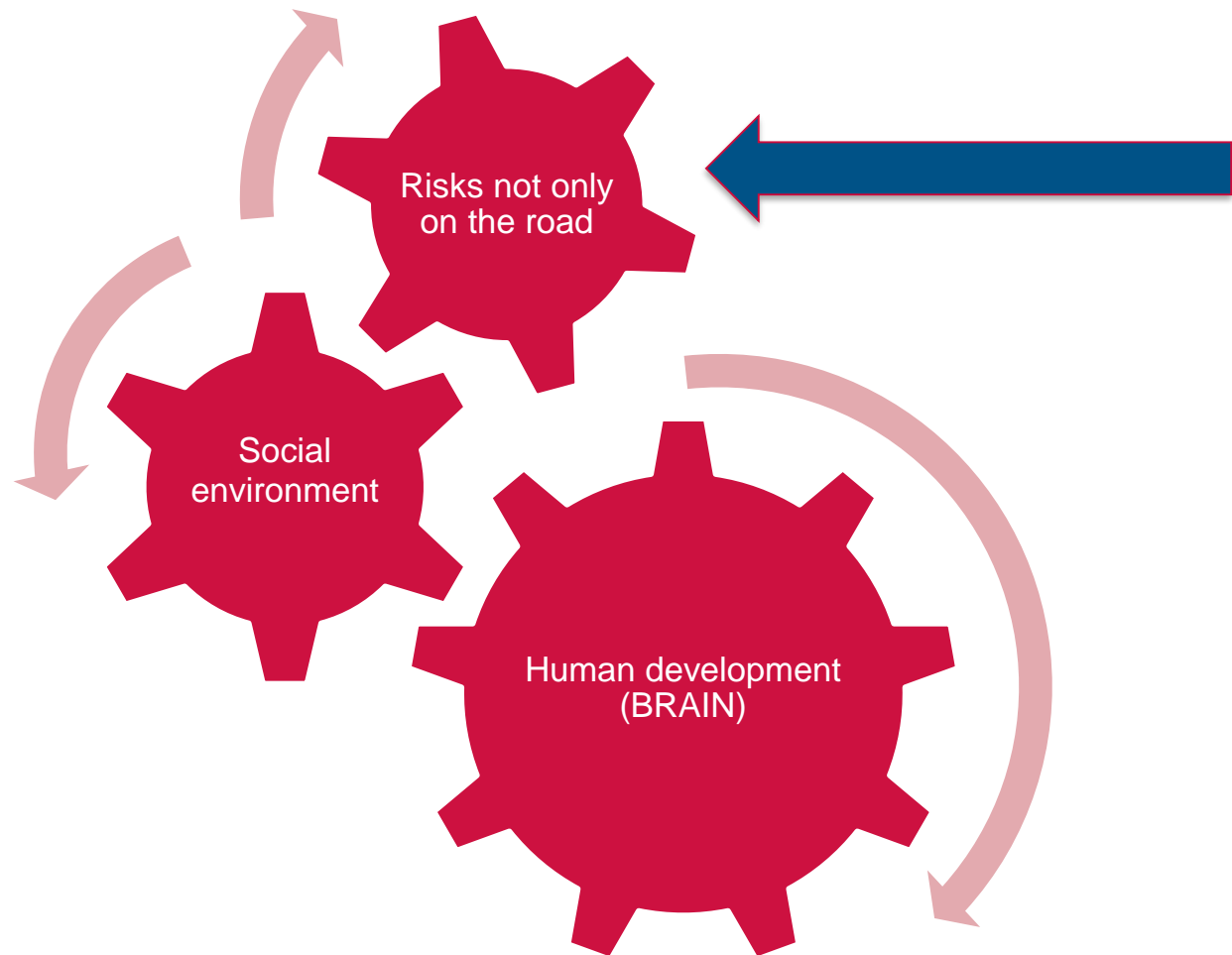
## Finding answers



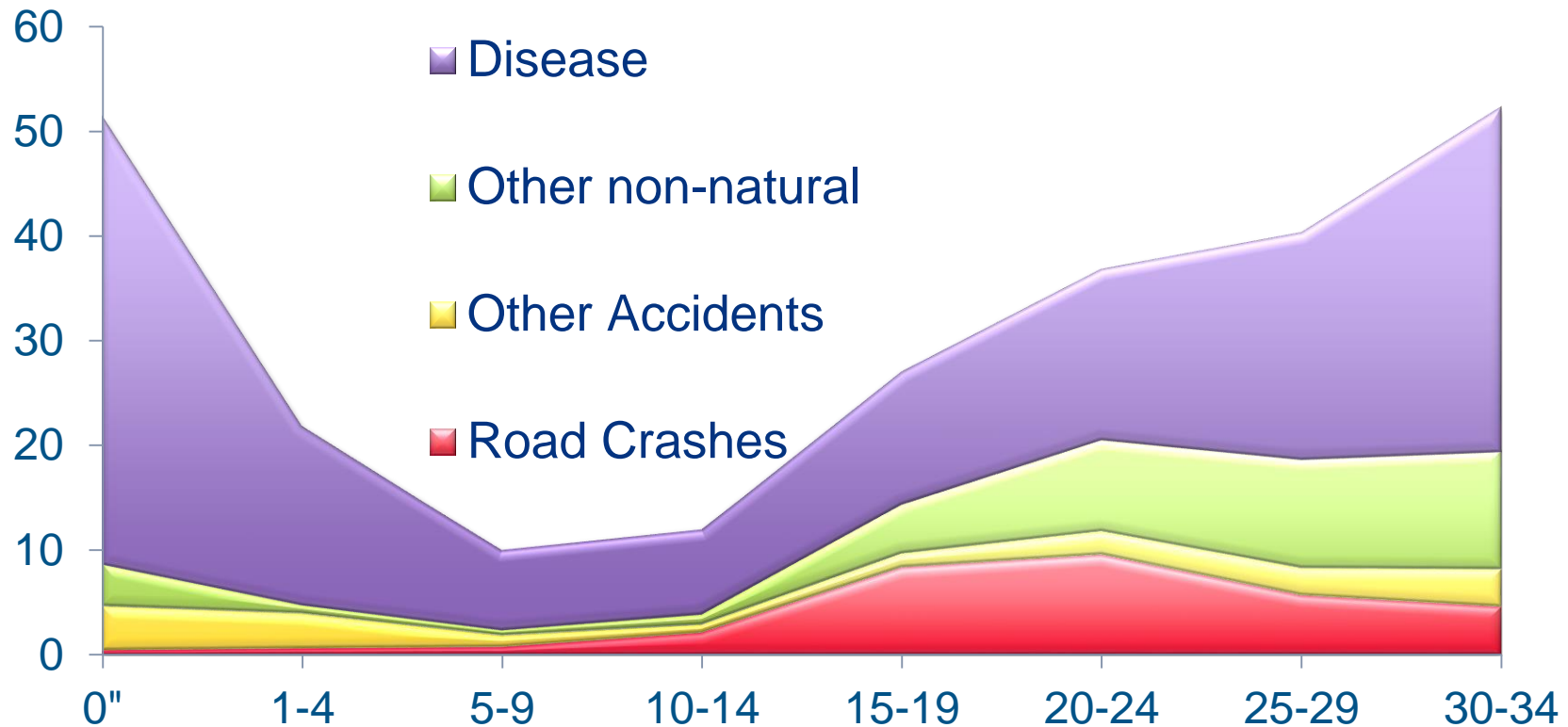
# Young people: risky leaps into the unknown



# Understanding young people riskiness



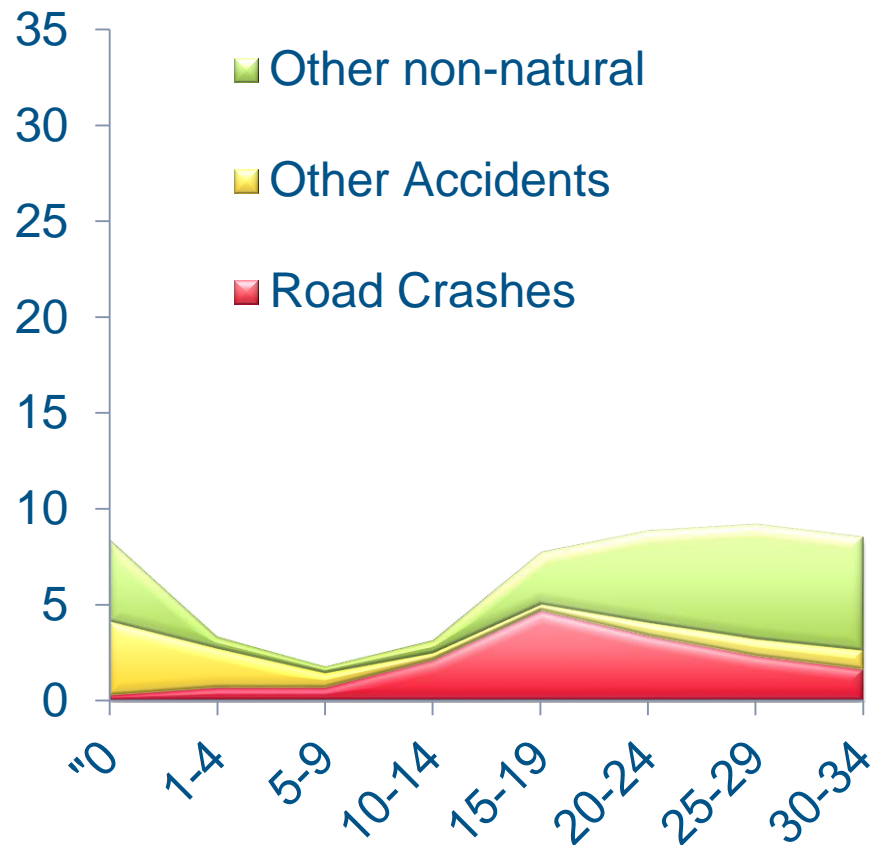
# Mortality by age (not only on the road) NL



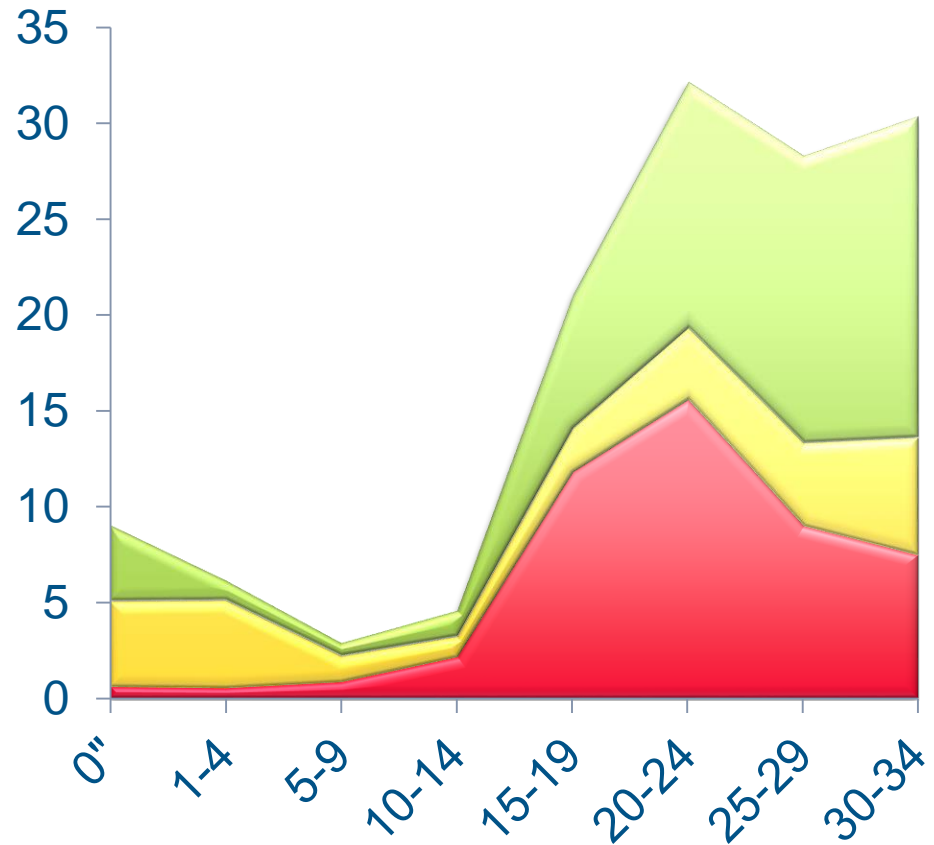
*15+ does not die from disease, BUT from injuries*

Twisk, D. A. M. (2014). *Protecting pre-license teens from road risk: Identifying risk- contributing factors and quantifying effects of intervention strategies* University of Maastricht  
[www.swov.nl/rapport/Proefschriften/Divera\\_Twisk.pdf](http://www.swov.nl/rapport/Proefschriften/Divera_Twisk.pdf). Maastricht.

# Seeing what we do not understand yet (NL)



**Females**



**Males**

# Understanding risky road behaviours: how?

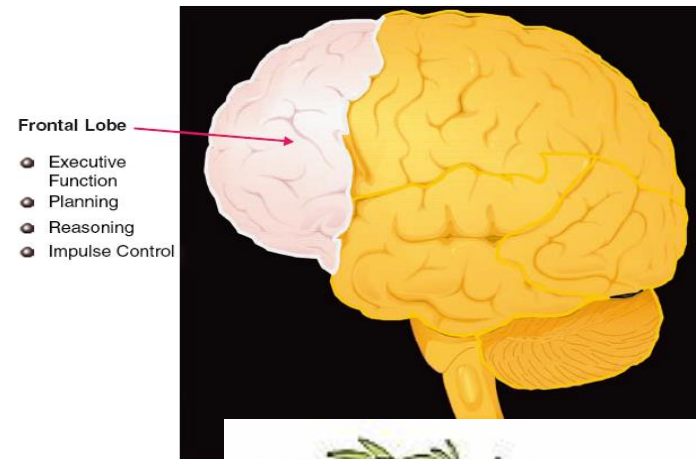
1. Observations (e.g. effect of distraction)
2. Naturalistic driving/riding instrumented cars (understanding conflicts)
3. Surveys: What do they belief, feel, and intend to do?
4. Simulators: can we illicit errors or strengthen safe routines?
5. MRI; how does the adolescent brain change with age? Is risk taking inevitable?





# What have we learnt? (1)

- **Age:** Social & Biological immaturity
- **Lack of (road) experience**
- **Poor self assessment:** over-confident
- **High exposure** to risky conditions



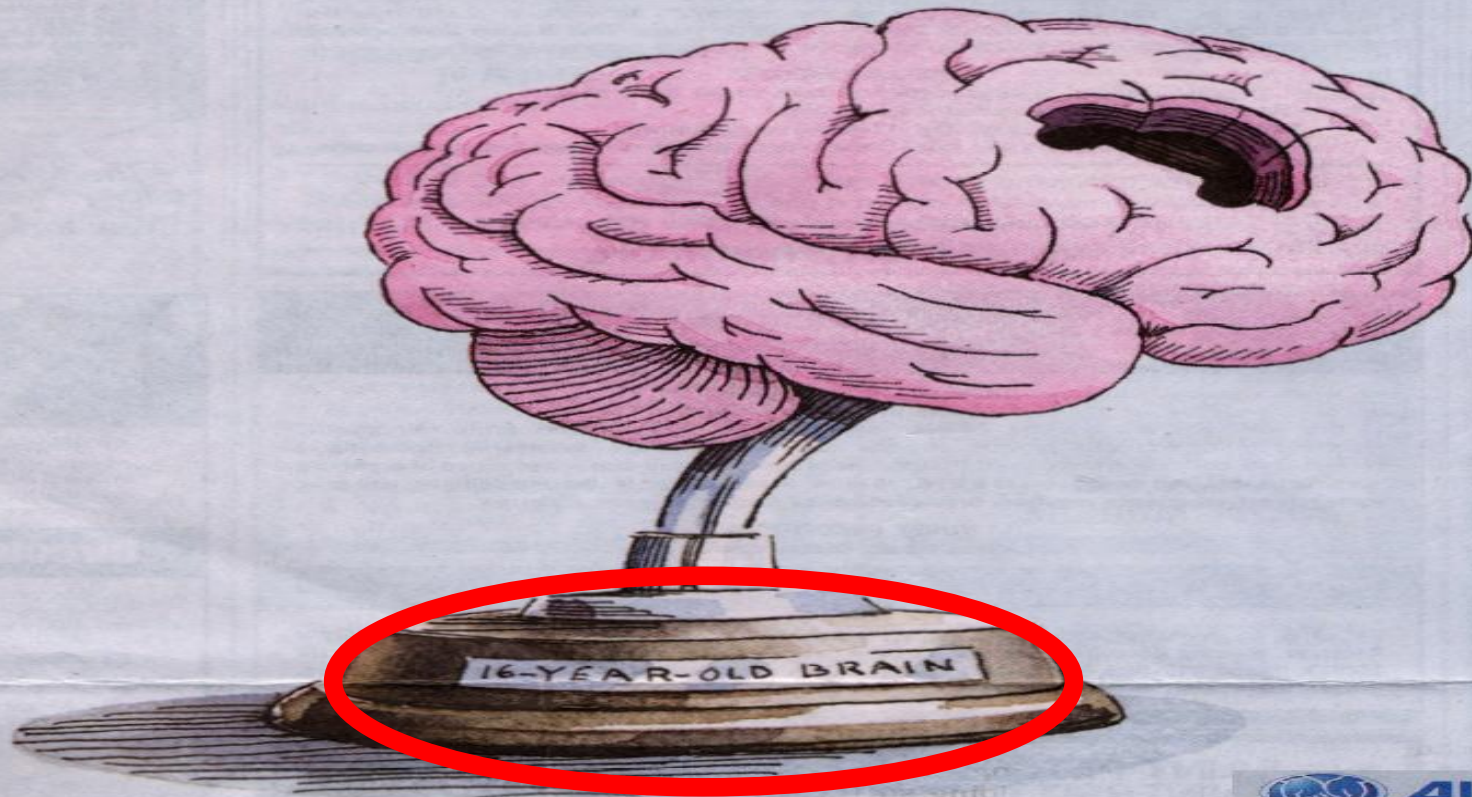
*Source : OECD (2006) young drivers: the road to safety*



# Why do most 16-year-olds drive like they're *missing a part of their brain?*



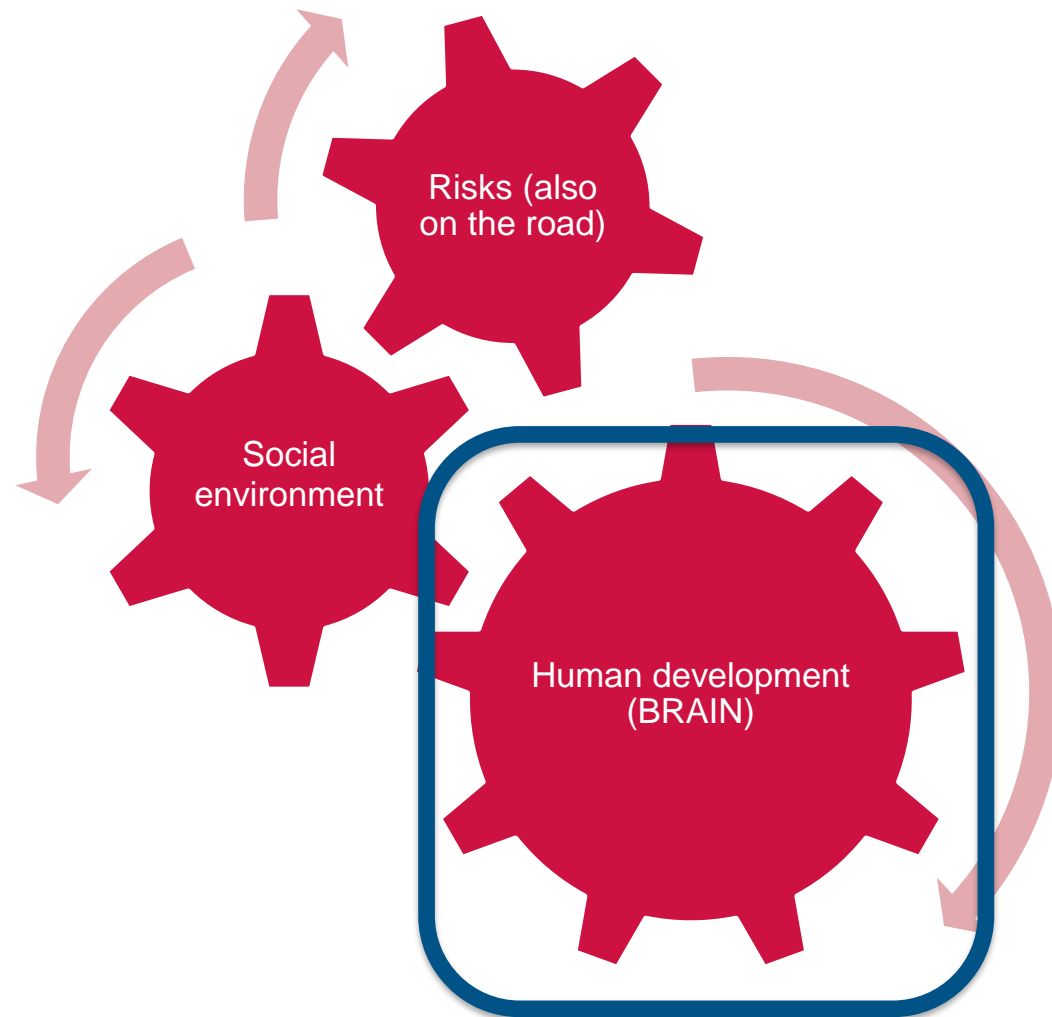
BECAUSE THEY ARE.



**Allstate.**  
You're in good hands.

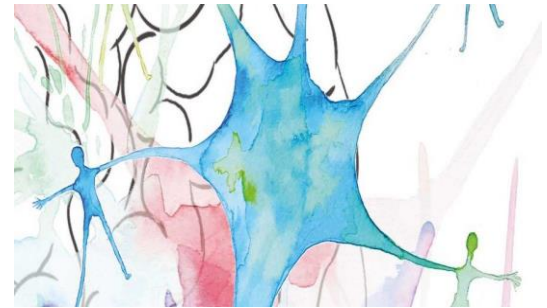
Auto  
Home  
Life  
Retire

# What have we learnt about Age? (2)



# What have we learnt about age?

- Sensitive to peer 'judgment'
- Missing out/exclusion = Pain
- Hazards not immediately feel dangerous
- Novelty and sensation seeking
- Impulsive and poor planning



Feenstra, H., Ruiter, R. A. C., & Kok, G. (2012, April 1, 2012). Go Fast! Reaction time differences between adults and adolescents in evaluating risky traffic situations. *Journal of Health Psychology*, 17(3), 343-349.  
<https://doi.org/10.1177/1359105311417190>



# Understand Youth culture

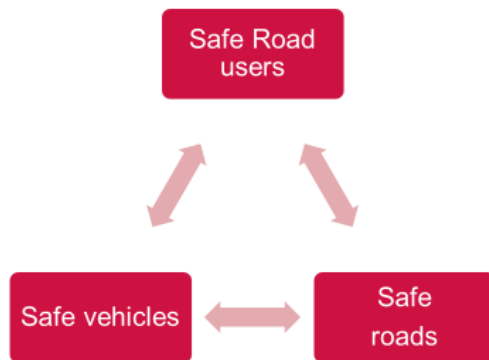


Smart phone use (FMO), drinking/drug use / peer pressure/ group behaviour,

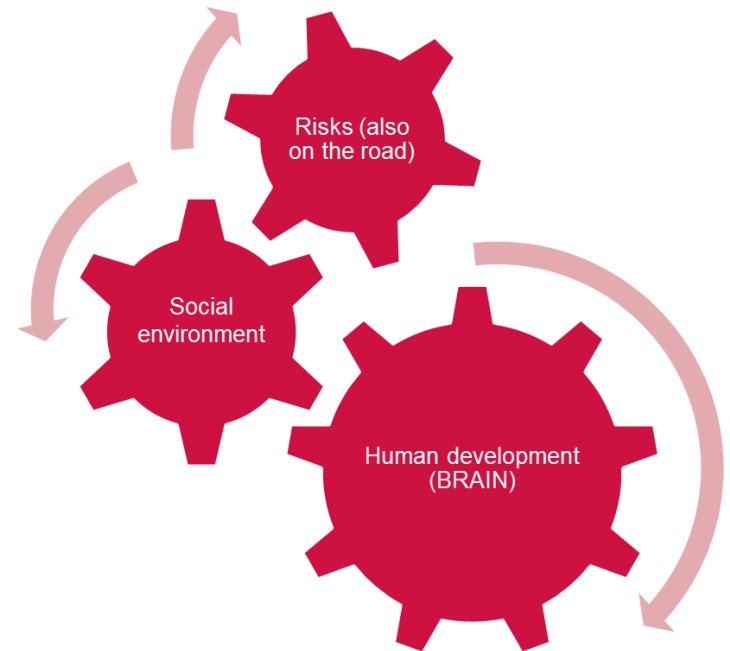
Source: EU

# Directions for intervention development

A safe system approach: human centred design



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# Implement all safety measures



**Countries safe for ALL other road users, are also safer for young road users**

Twisk, D., Commandeur, J. J. F., Bos, N., Shope, J. T., & Kok, G. (2015). Quantifying the influence of safe road systems and legal licensing age on road mortality among young adolescents: Steps towards system thinking. *Accident Analysis & Prevention*, 74(0), 306-313.  
<https://doi.org/http://dx.doi.org/10.1016/j.aap.2014.07.021>

# Conclusions

1. Insights into their development changed perceptions of adolescent risky behaviours.
2. Riskiness is part of adolescent development not restricted to the road only
3. For effective countermeasures: consider all aspects of adolescent development

Understanding young people riskiness

