

# Safe System at National Highways - Context and Challenges

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# Content

- The international experience
- Organisational and national experience
- The hierarchy of control
- Our responsibilities and actions
- Operationalising the System

# International experience

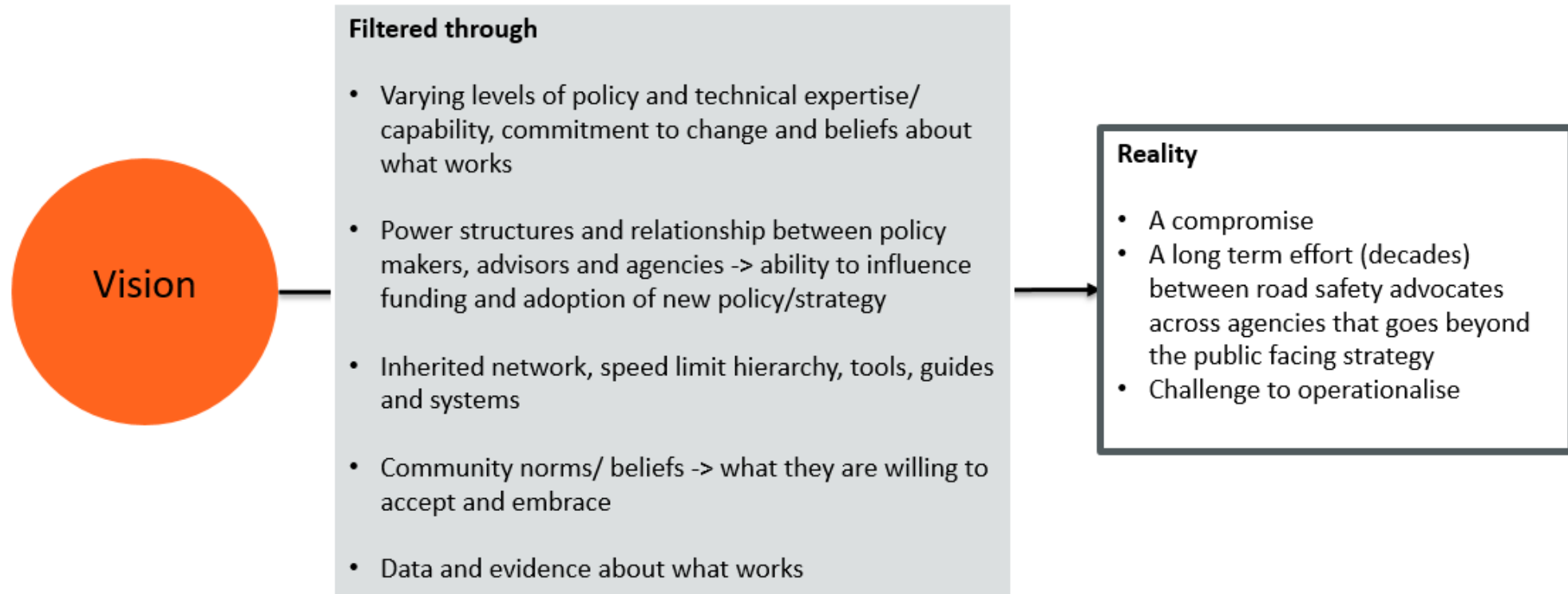
- Common themes included:
  - Commitment to eradicating KSI as an outcome of collisions
  - Road user compliance required for safety critical rules
  - Vehicle design may manage extreme behaviours but not in the near future
  - No relaxation on education, enforcement and good road design

# International experience

- Implementation challenges included:
  - No clear and detailed vision of the future network
  - Uninformed, cautious and reactive leadership
  - Too much silo working
  - Slow pace of research becoming practice
  - Effective interventions are not necessarily popular ones

# International experience

- What gets implemented



# International experience – lessons learned

- Compelling, coordinated and committed leadership needed (including key stakeholders)
- Detailed plan needed to achieve long term goals, including investment requirements and KPIs
- Strategic, systematic and sustained coordination and communication
- Increase the pace of embedding research and innovation
- Foster demand for Safe System solutions
- It provides principles and a framework only
- Relies on unknown innovation to meet Vision Zero
- Requires everyone pulling in the same direction
- How to manage the 'naughty 5%' is not defined
- Suicide is not considered
- The role of the road user is not well defined
- The development of a safety culture and citizenship is not well defined

# Organisation and national experience

- Two further studies commissioned which are ongoing:
  - Organisational
  - National (road safety partnerships)

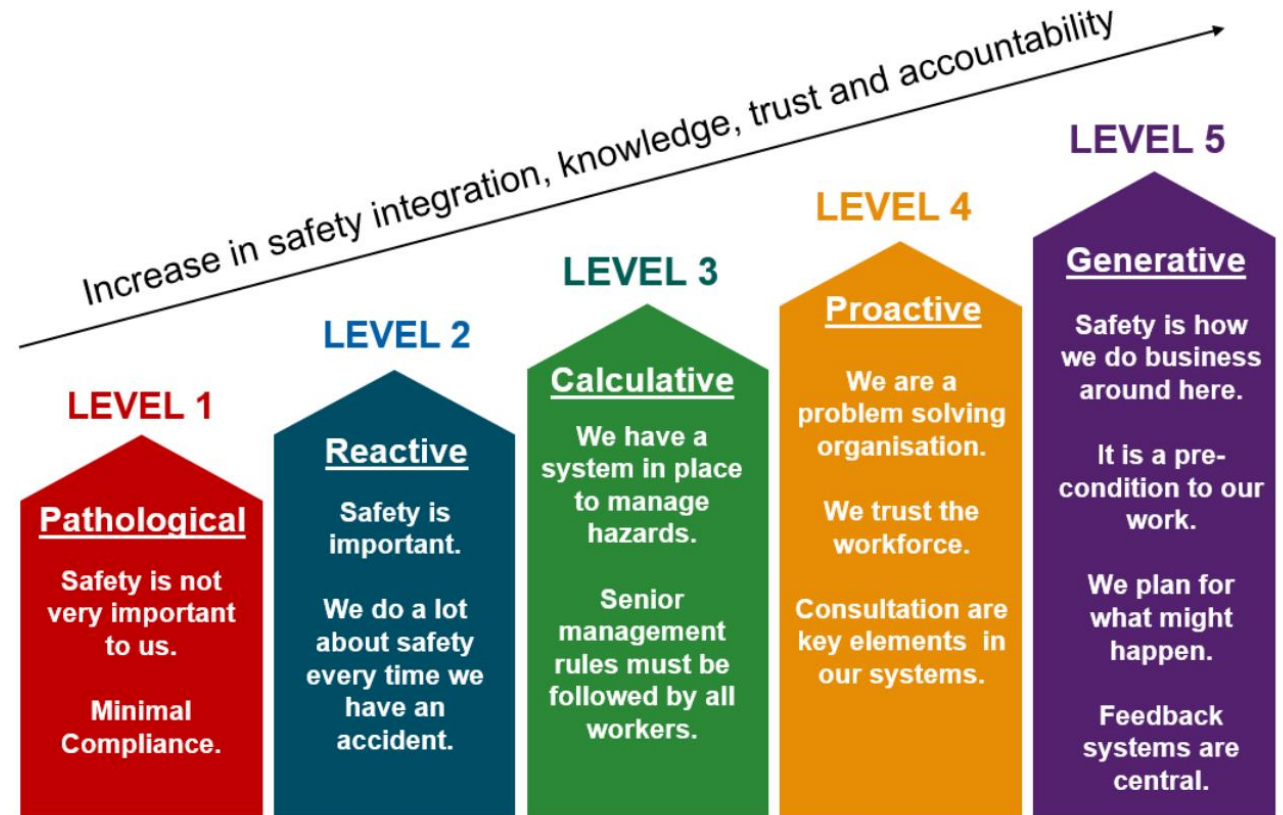


Figure 1: Hudson (2005) Safety Culture Maturity Model

# Hierarchy of control

- No single actor 'owns' or controls all elements of the System
- Some actors are, however, duty carriers for achieving the purpose of the System
- Acceptance that as a highway provider and operator:
  - We have responsibility for meeting our casualty reduction targets
  - We have a high degree (and unique) control over one pillar of the System
  - We have a role in influencing, motivating, supporting and enabling across the remaining pillars
  - There are factor which will influence outcomes over which we have neither control nor influence
    - demography; economics; health; population etc



# Conflict and compatibility

- The Safe System doesn't exist in isolation
- Other agendas – complementary and competing – exist
  - Carbon reduction
  - Digitisation
  - Pollution reduction
  - Electrification of the fleet
  - Economic growth
  - Freedom of choice
  - Speeds that reflect route function
- The safety agenda, and the System that supports it, have to manage conflict and exploit opportunities

# National Highways responsibilities and the Safe System

Control

High



Low

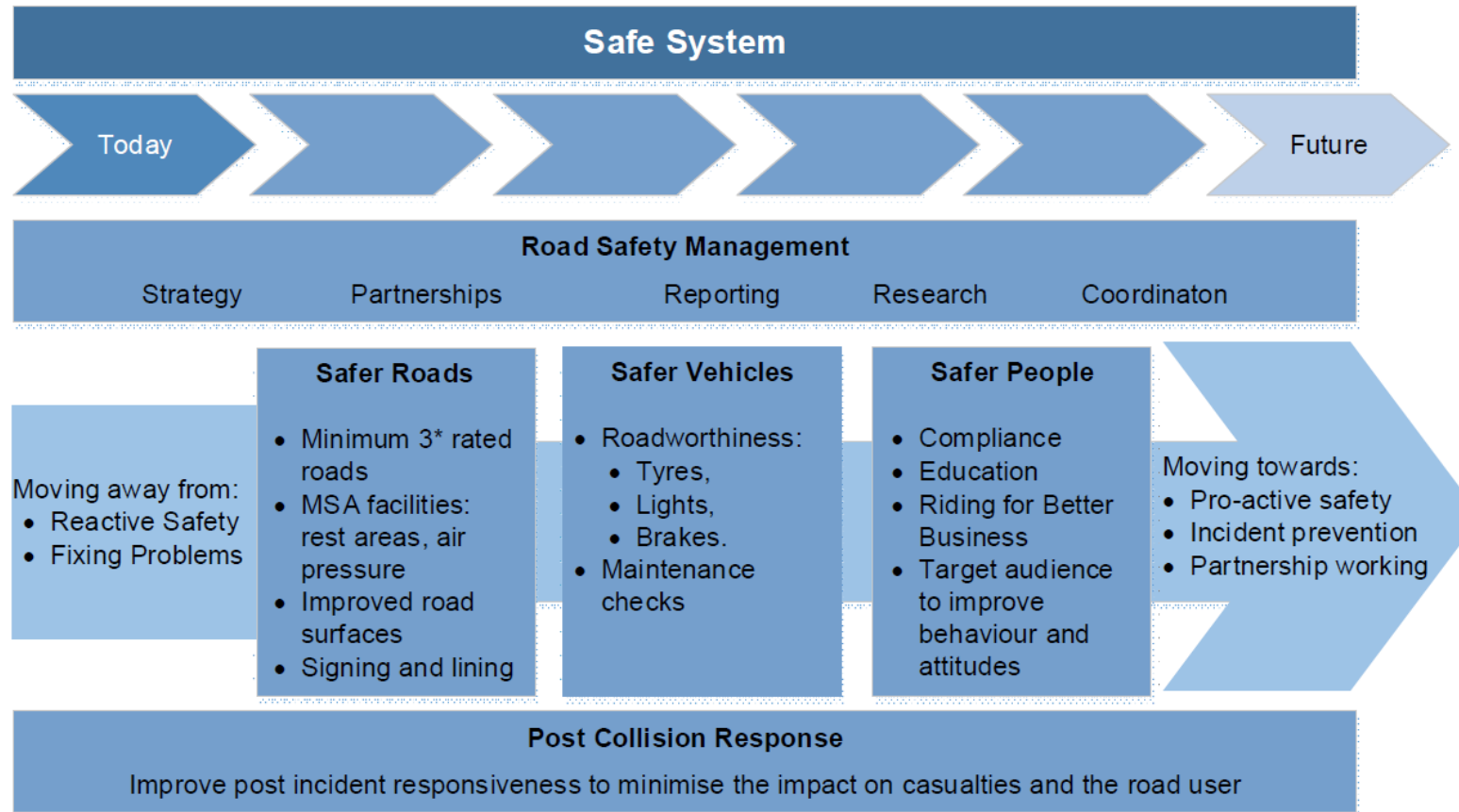
## National Highways responsibilities

- Roads pillar
  - Design, construction, maintenance and operation
- Speed pillar
  - Speed limit review
  - Management of user speeds
- People pillar
  - Campaigns, compliance, culture
- Post-crash
  - Coordinate and collaborate with emergency services
- Vehicle pillar
  - Support better maintenance
  - Influence supply and demand side

## Safe System initiatives

- iRAP Star Rating
  - Proactive risk based Safe System method to define major investment packages
- Lead Safety Indicators
  - Safety performance Indicators developed
- Verges safety project
  - Identified novel approaches to improve the road side: more forgiving
- Fatahs database investigation
  - A key safety management approach to gain better insights

# Improving road risk management for motorcyclists



## A Safe System approach to motorcycle safety

# Operationalising the System

- What does the System look like when it is used to address a defined problem?
- Many challenges:
  - Blending Soft and Hard interventions
  - Many actors needed
  - Actors work within different timeframes
  - Third party involvement needs to be sustained
  - Finding the right balance between interventions across the System
  - Gaining commitment and acceptance from the road user
- Road user - the glue that binds the system
  - Every behaviour and every choice affects outcomes
  - But their role is uncertain and their actions hard to predict

# Next Steps

- Complete our internal assessment
- Review findings from the national snapshot
- Develop our blueprint for action under a Safe System model
- Consult with our stakeholders for acceptance and buy-in
- Develop an approach to Safe System delivery that works at route-level



**Thank you**