

# **BETTER BRIDGE MANAGEMENT**

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**Transport for London**



# Agenda

- **TfL and its challenges**
- **Surface Transport Objectives**
- **New initiatives**
- **Collaborative working**
- **Reliable procurement**
- **Summary**



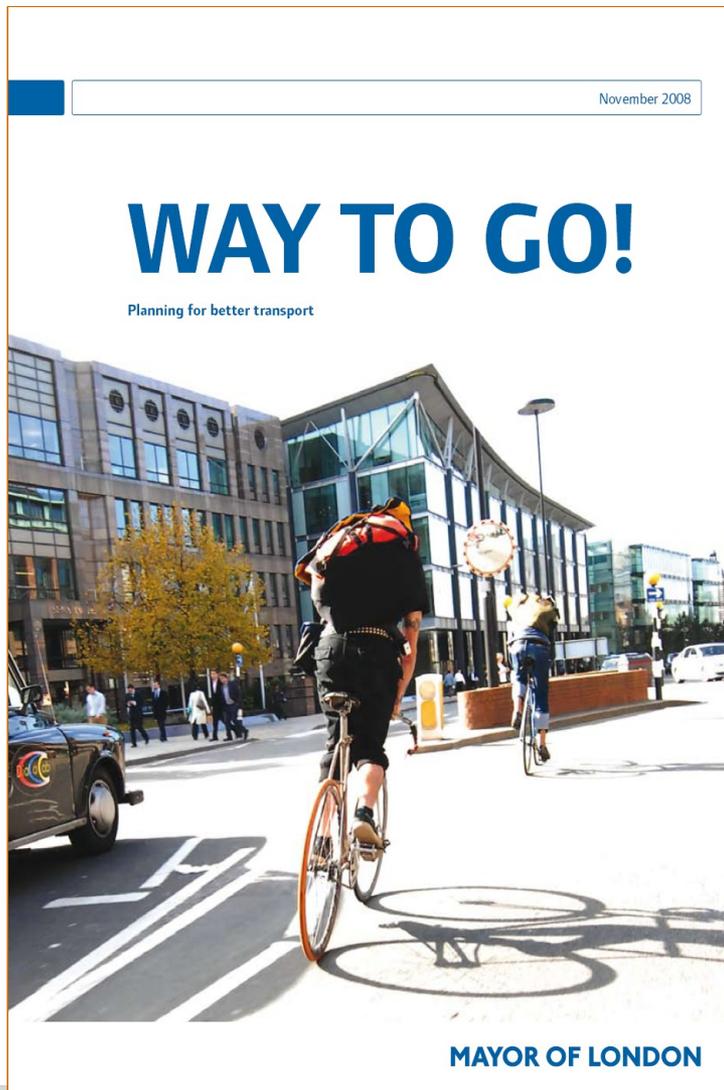


# **New Mayor – New Challenges**

- **Cycle Highways**
- **Cycle Hire**
- **New Bus for London**
- **Olympic Route Network**
- **Removal of WEZ**
- **£2.4b of savings in next 10 years**



# Boris's 'Way To Go' – Planning for better transport



Smoothing traffic flow  
(WTG, p. 26)

Less clutter on the  
pavement so I'm not  
slowed down  
(WTG, p.10)

Fewer road openings  
obstructing the traffic  
(WTG, p.21)

Fewer traffic lights  
(WTG, p.20)

Less time spent  
waiting for lights to  
turn green  
(WTG, p.20)

Fewer buses  
clogging up the  
streets  
(WTG, p.20)

More time moving  
rather than stopping  
(WTG, p.11)



# **New Initiatives - Structures**

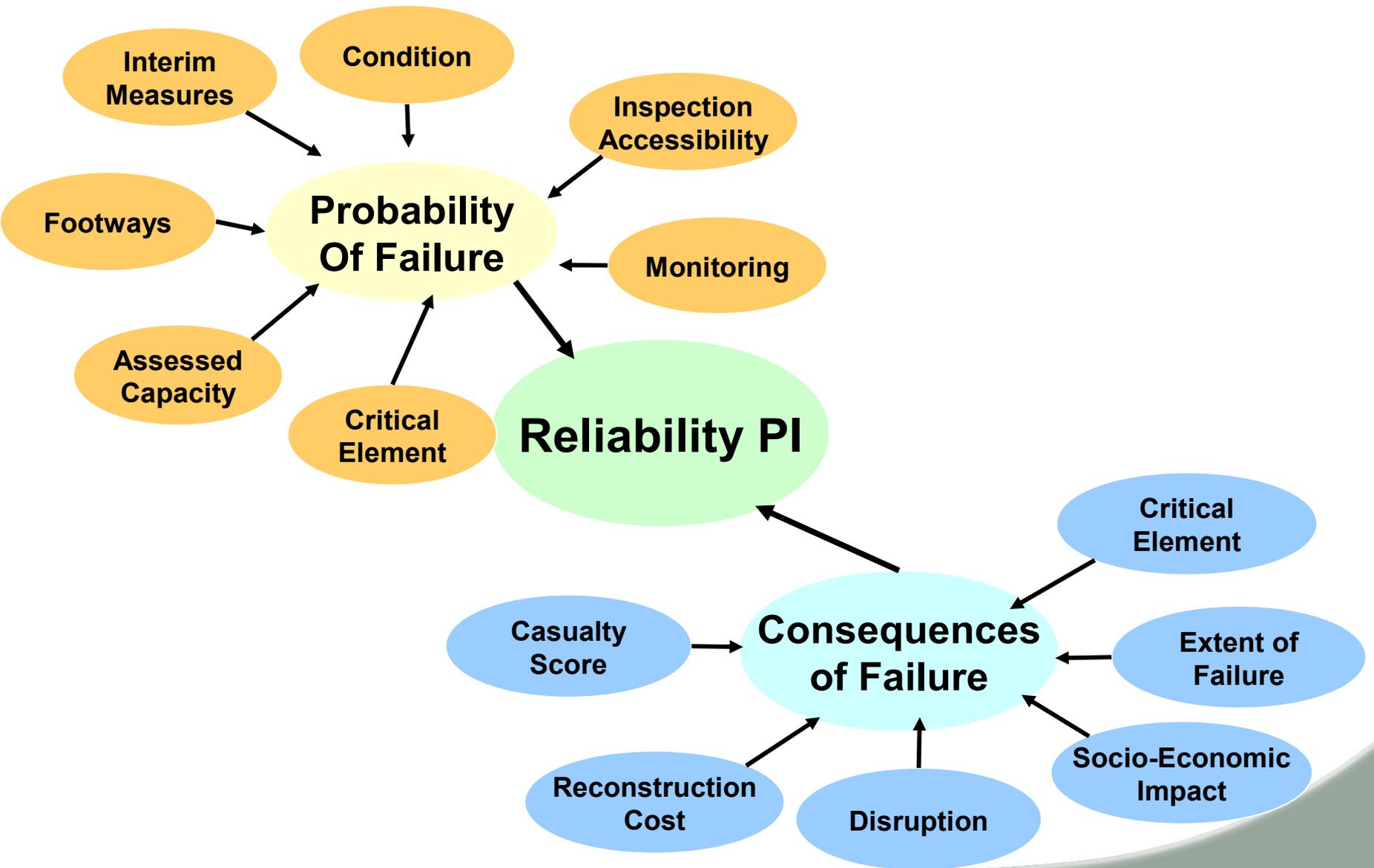
- **Risk based inspections**
- **Priority ranking and risk assessment for parapets in urban areas**
- **Lifecycle planning tool**
- **Qualifications for bridge inspectors**



# Risk Based Inspections

- **BD63/07- Time based inspections – generally  
GI's, PI's, SI's including PTSI's**
- **Assumption is that the above regime provides adequate safety and reliability of structures?**
- **Efficiency and Effectiveness of resources consumed?**





# Parapet prioritisation for urban areas

**Current guidance is limited to TD19**

**Guidance predominantly for the high speed road network**

**Not suitable for low speed networks or many rural situations.**

**e.g. structures situated at junctions**

**impact angles may be greater than 30°**

**insufficient room to add approach and exit safety barriers**



# Factors which increase risk

- Traffic volume – AADF, peak flow;
- Traffic speed – speed changes, actual average and maximum;
- Traffic manoeuvres – junctions, turning, merging, weaving, segregation, traffic control (grade separated, at level, controlled and uncontrolled);
- Highway alignment – horizontal alignment, vertical alignment, sight and stopping distances;
- Carriageway – single or dual and number of lanes;
- Parapet length;
- Visibility – obstructions;
- Highway interactions – schools, stations, bus stops and depots, hospitals, emergency service facilities.



# Factors which improve risk ranking

- Parapet type – modern compliant or modern non-compliant, older types or historic parapets;
- Proximity to carriageway – less than standard, intermediate, greater than 4.5m;
- Orientation to direction of travel – parallel, shallow angles, steep angles;
- Parapet residual strength – condition, defects;
- Additional vehicle restraint systems – safety fences, concrete barriers, Trief kerbs, other;
- Highway structure – vulnerability or weakness as defined by assessor.



# Qualification for Bridge Inspectors

- **Inconsistency in inspection reporting**
- **Employers need to demonstrate competent staff**
- **Increase status of bridge inspectors**
- **Improved career path**



# Qualifications for Bridge Inspectors

- **73 UK and 15 overseas bridge owners and managers**
- **Good similarity in inspection regimes**
- **Many examples of good practice**
- **Sound evidence to support formal training**
- **What's next?**



# Collaborative Working with our partners

- Skid resistance
- Harmonising specification for road surfacing
- London wide flooding strategy
- Maintenance prioritisation tool
- Financial planning and asset valuation



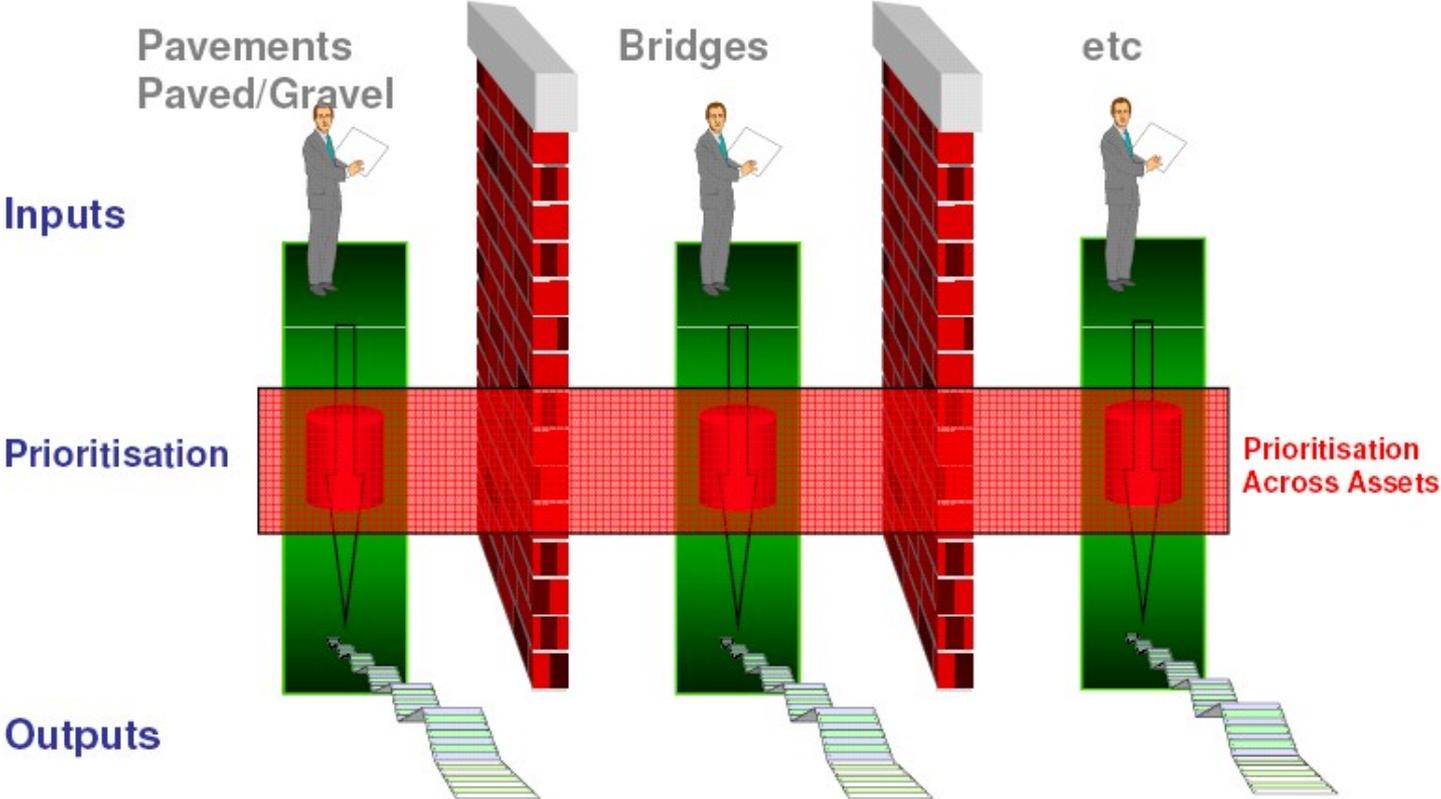
# Life cycle planning tool

- *Long-term View*
- *Finance and Work*
- *Whole Life Costs*
- *Transparent Decision Making*
- *Audit Trail*
- *Knowledge Transfer*





# Where next?



Integrated Asset Management



# **Reliable Procurement challenges/New ways of working**

- **Limited supply market**
- **Use of NEC – resulting in speedy resolution of contractual issues and settlement of final accounts**
- **Fully integrated Client, Contractor and Consultant teams based on site in shared accommodation**
- **Joint Project Boards**
- **Responsible procurement**



# Summary

- **TfL and most UK organisations faced with**
  - Budget shortfall
  - Improving traffic flow/reducing congestion
- **The way forward**
  - Risked based inspections
  - Parapets in urban areas
  - Lifecycle planning tool
  - Improved training and qualifications
- **Collaborative working**
- **Responsible procurement**

