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Evaluation Results for Intelligent Transport Systems

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TRL

Outline

- Criteria for evaluating ITS projects
  - European projects and CONVERGE VQ
  - The case for UK Traffic Control Centres
- Examples of evaluation results for:
  - Traveller information systems
  - Urban traffic management systems
  - Highway traffic management
- Conclusions

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Guildford
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60

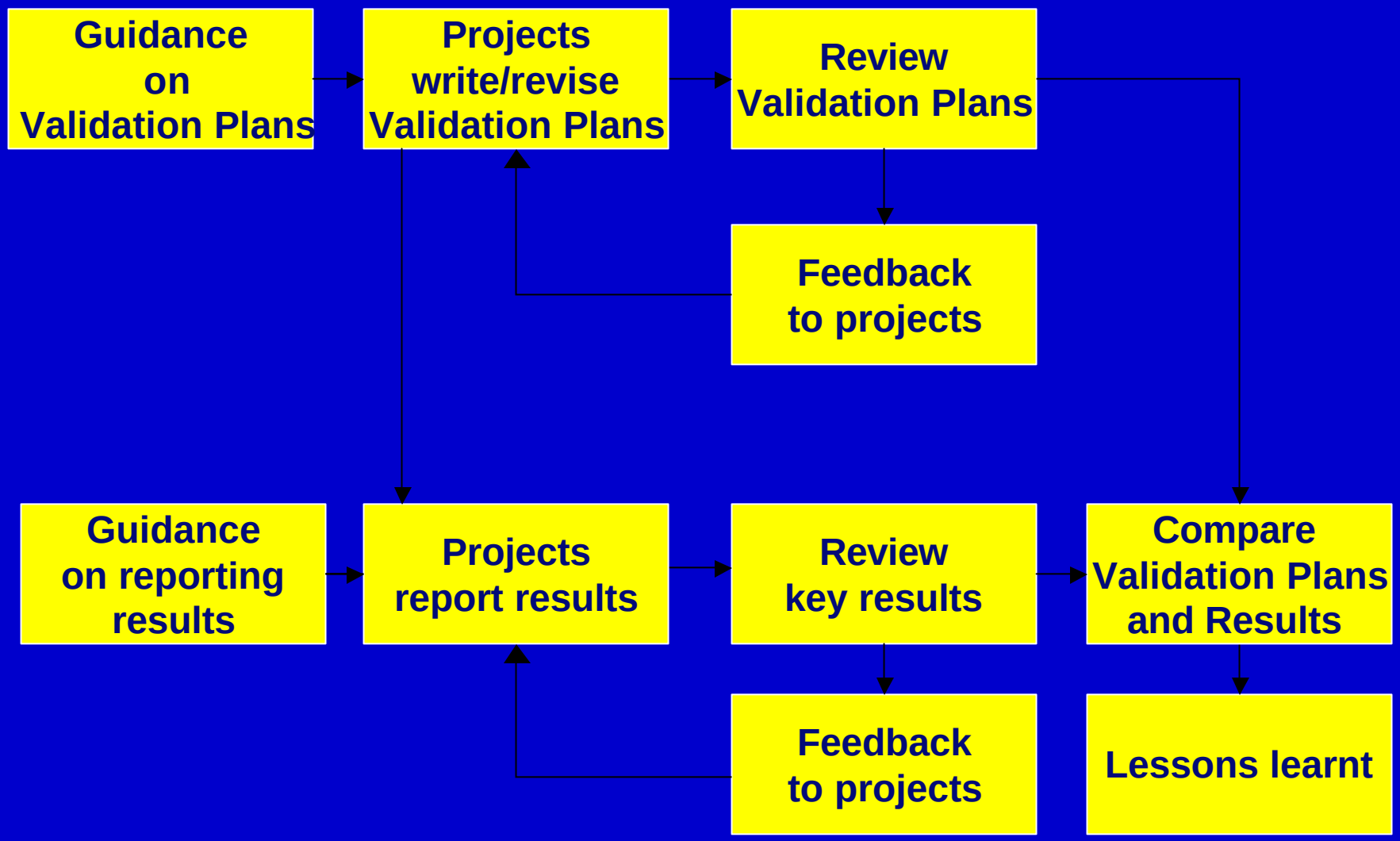
Categories of Assessment: CONVERGE-VQ

- Technical assessment
- User acceptance assessment
- Impact assessment
- Socio-economic evaluation
- Financial assessment

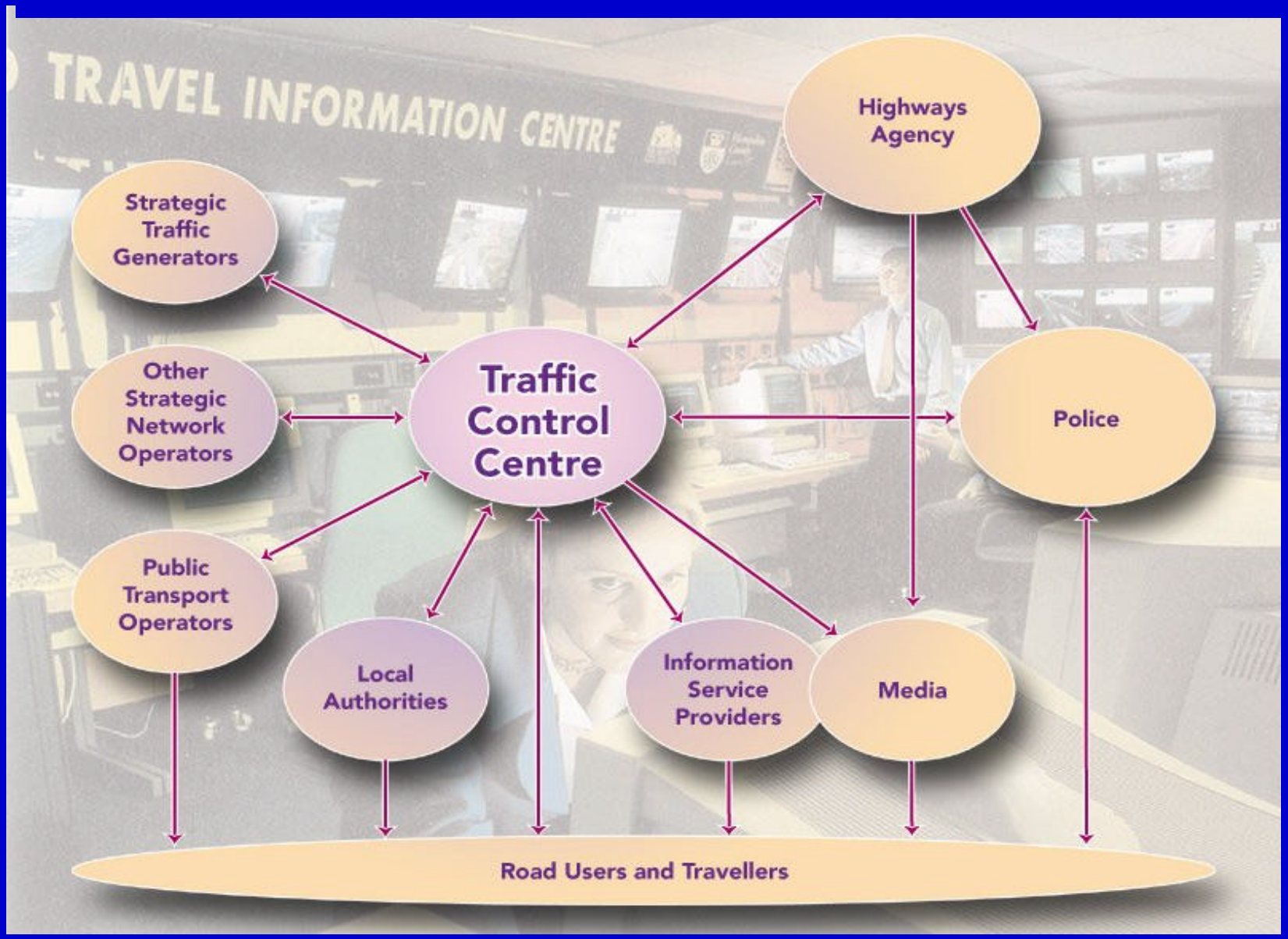
And

- Market assessment

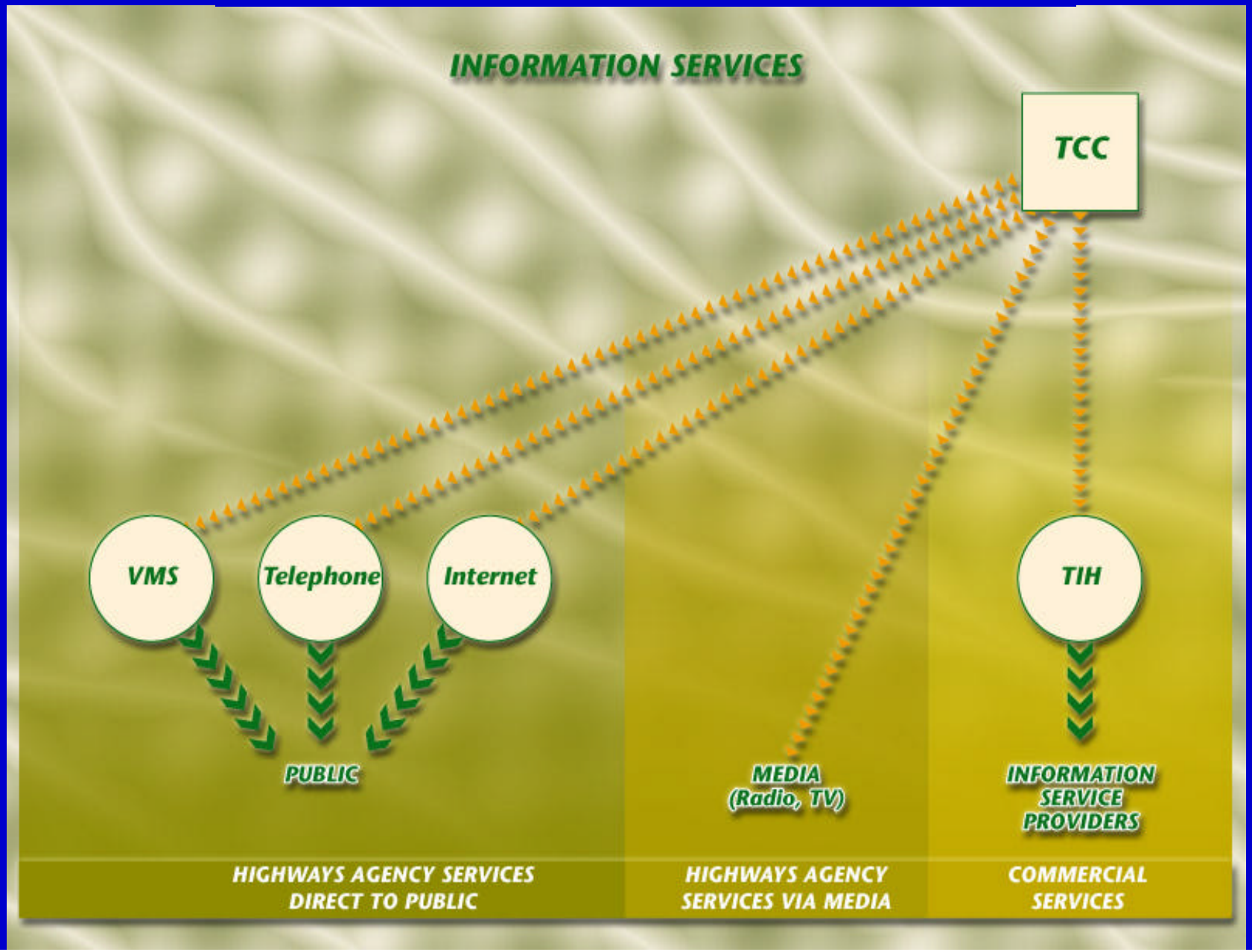
The CONVERGE-VQ approach



Stakeholders in TCC information service



Types of information from TCC



The economic case for UK Traffic Control Centres

- Traditional cost-benefit approach to assessment
- ‘Defensible and conservative’ estimate of benefits that could be readily quantified
- Based on extrapolating evidence from a variety of sources

- Operational risk to be shared between public and private sectors
- Contract for service delivery will require evaluation of impacts for performance measurement

Traveller information systems

- Midlands Driver Information System
  - payback period 27 months
- National Driver Information System in Scotland
  - 9 incidents saved £150,000 in 1994
- London bus passenger information
  - 1% increase in patronage

National Driver Information System, Scotland

Urban traffic management systems

- SCOOT Urban Traffic Control
  - Journey times reduced by around 30%
- Access Control Edinburgh
  - 3% less traffic
  - Speed reduced 2-3 mph
  - 34% less accidents
- Public Transport Priority London
  - Bus delays down 22% - 33%
  - Journey times down 7% - 8%

Bus Priority with SCOOT

Highway traffic management systems

- Speed Control (M25)
  - 5% increase in peak flow
  - 25% - 28% less accidents
- Ramp metering
  - Birmingham: 44% first year rate of return
  - Glasgow and Birmingham: 3-4% increase in traffic throughput on main line

Ramp metering

Conclusions

- Systematic evaluation is important in investment decisions – use 6 categories of assessment
- Evaluation of UK ITS schemes:
  - positive local benefits
  - qualified by disbenefits elsewhere
  - focus on scheme objectives, not disbenefits
- Complementary applications increase benefits
- Need more research on user responses
- Evaluation methods must include intangible costs

How to obtain your copy of the paper

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