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# Cycle conflict – can Computer Vision add to our analysis capability

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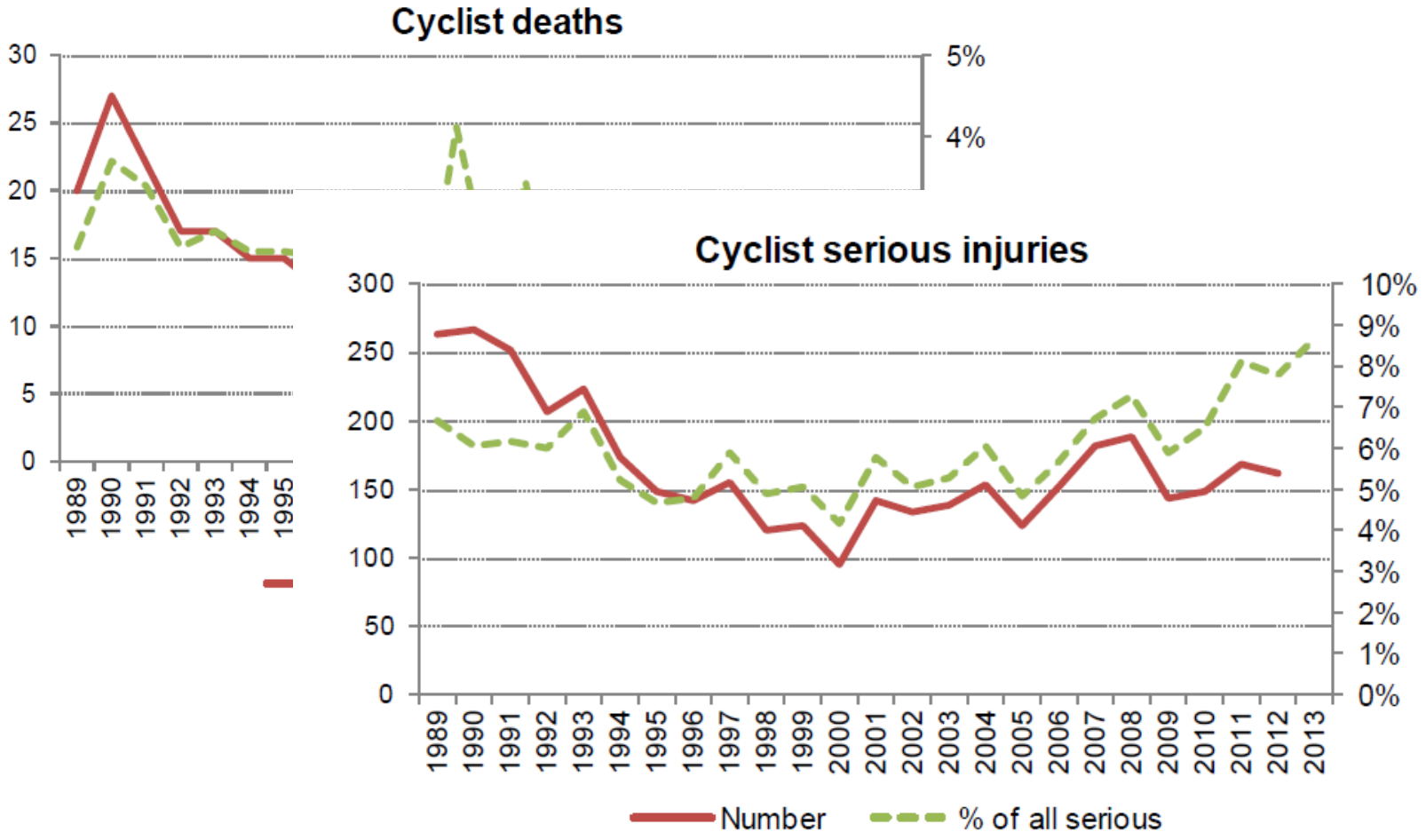
# When is too much, not enough?





# The Theory of Swiss Cheese and a Pyramid

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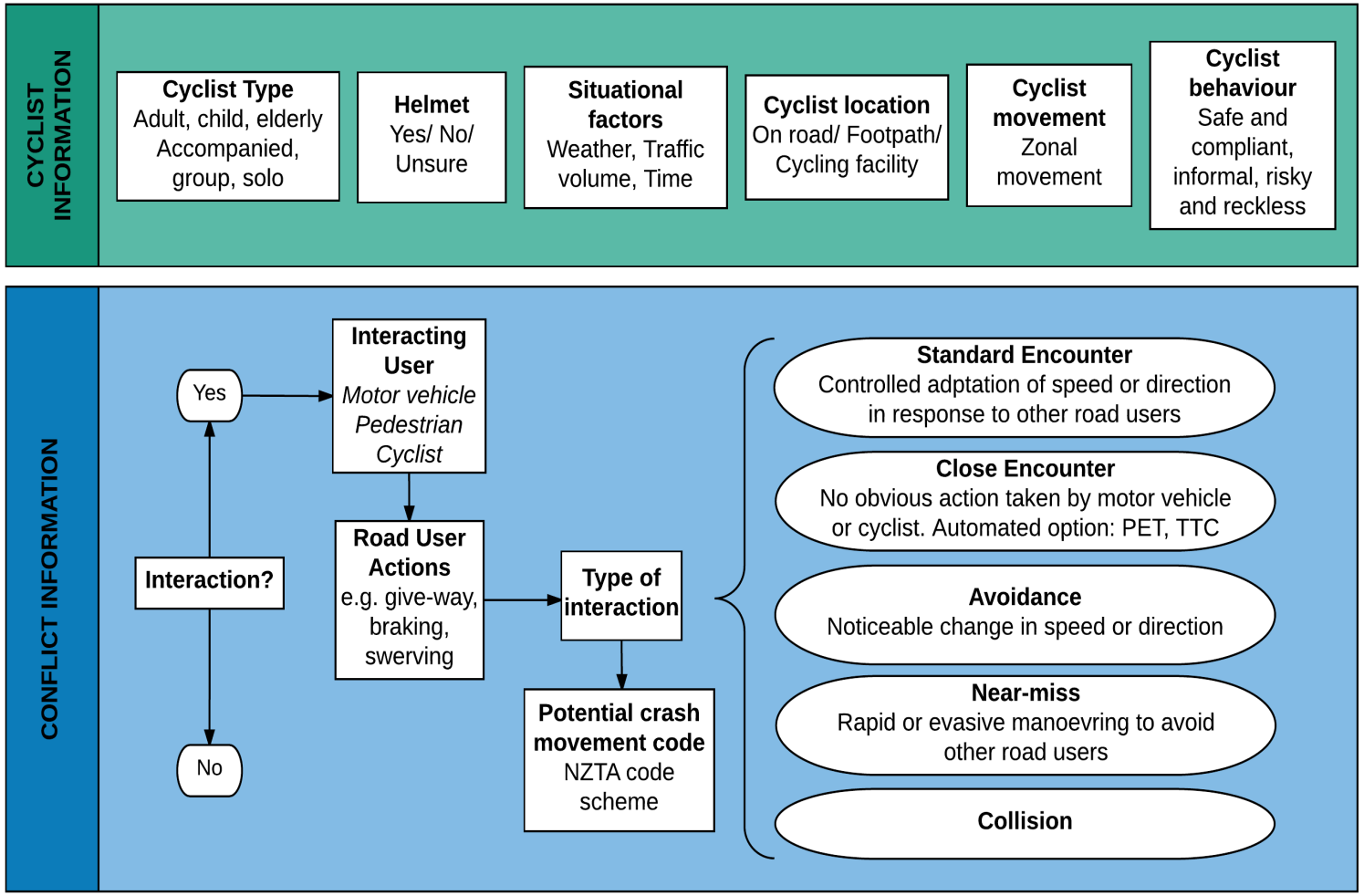
# Capturing everyday incidents

# Manual coding



# Does it work – technical results

CCTV quality is acceptable.
Zoom is critical

87 events identified by computer
25 confirmed by manual review

79 – 83% accuracy
identifying cycles

# Does it work – time savings

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Table 12: Comparison of manual and hybrid methods to manually analyse footage

| Method | Estimated hours required to process 1 hour of automated footage (manual analyst time only) | Comments |
|---|---|---|
| Manual method | 2-2.5 hours | This will depend on:<br>• The number of variables coded,<br>• The type of variables (e.g. speed or distance judgements were not done here, as they require frame-by-frame analysis which slows coding significantly)<br>• Site conditions (e.g. higher cyclist rates and number of notable conflict events increase time) |
| Hybrid method | 0.5 hours | This could be further improved by:<br>• Running software to provide a library of time-stamped video segments showing each separate potential event (currently the time stamp of interesting events is provided)<br>Note: This does not include the time taken to calibrate and run the automated software. |

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# Does it work – cost effectiveness?

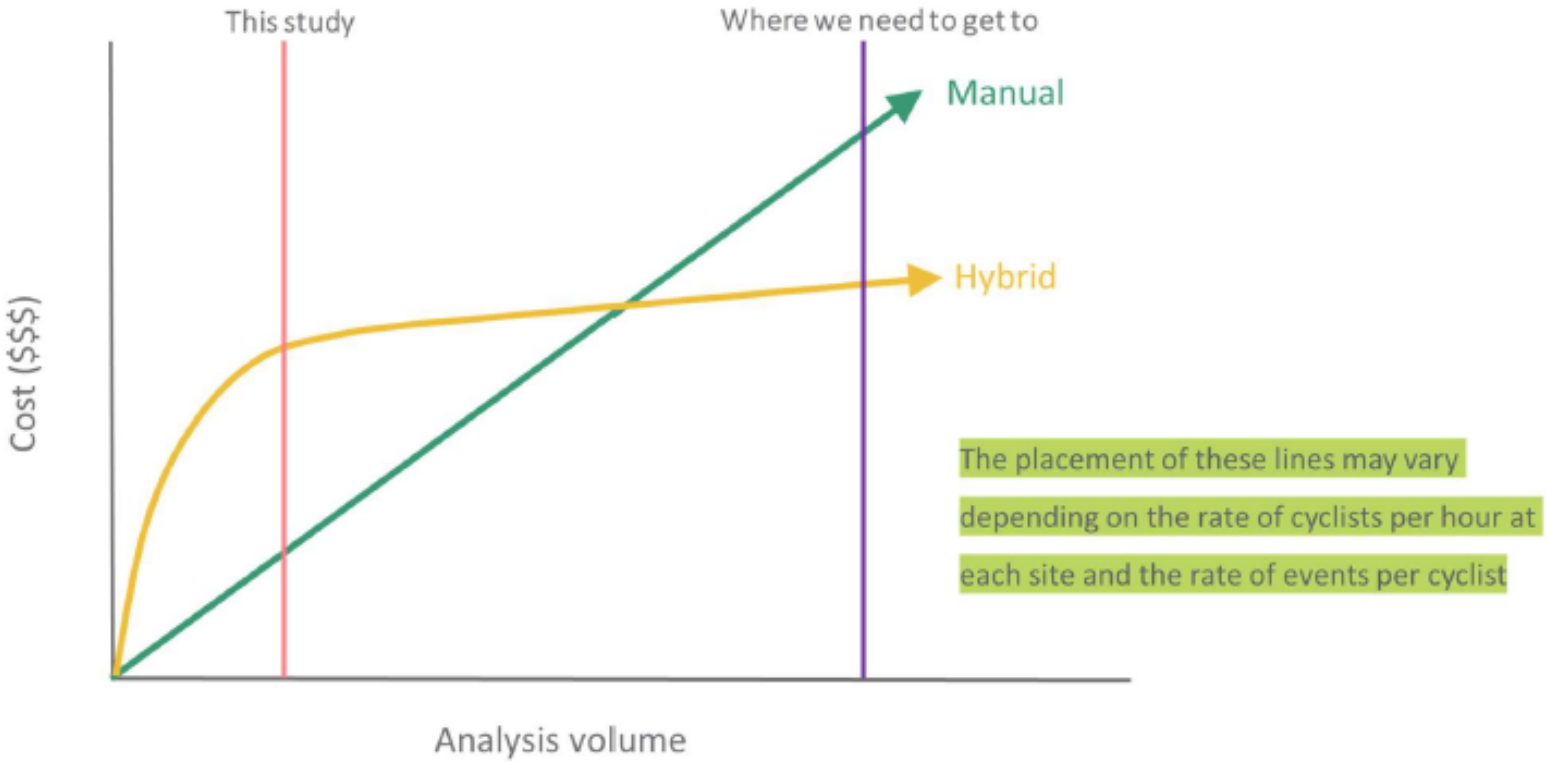


Figure 22: Cost-effectiveness and value of this data

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# Thank You

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