FIMCAR
Documentation and Benefit Analysis

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FIMCAR Documents

• Public Deliverables available at

www.fimcar.eu
Benefit Analysis

- Assumptions
  - Occupants suffering from high acceleration injuries would benefit from the introduction of FWDB
  - Occupants suffering from under/override accidents would benefit from the introduction of FWDB
Benefit Analysis

• Assumptions (continued)
  • Occupants suffering force mismatch issues would benefit from additional introduction of PDB
  • Occupants suffering from fork effect issues would benefit from additional introduction of PDB
  • Occupants suffering from low overlap would benefit from additional introduction of PDB
Benefit Analysis

- Target Population GB

```
All KSI
314 100.0%

No issue
177 56%

Compatibility issue
94 30%

Deceleration
43 14%

No issue
85 27%
No issue (High severity)
16 5%
No issue (Large vehicle underride)
76 24%

Structural Interaction
82 26%

Frontal Force / Compartment Strength
12 4%

Override
17 5%
Fork effect
38 12%
Low overlap
27 9%
```

Full width Test
PDB Test

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Benefit Analysis

- Target Population D

  - KSI (MAIS 2+)
    - 195 (100%)
  - No issues
    - 90 (46%)
  - Compatibility issue
    - 24 (13%)
  - Deceleration
    - 80 (41%)

  - Structural interaction
    - 23
  - Frontal Force Mismatch
    - 1
  - Others
    - 37
  - High severity
    - 14
  - No issue
    - 39

  - Fork Effect
    - 0
  - Low Overlap
    - 14
  - Underride
    - 9

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Benefit Analysis

• Estimation of break even costs per car scaled for Europe
  • For introduction of FWDB with compatibility metrics
    • 104 – 294 Euro
  • For introduction of FWDB with compatibility metrics and PDB with compatibility metrics
    • 158 – 415 Euro