Aliaksei Laureshyn
project co-ordinator
Lund University (Sweden)

aliaksei.laureshyn@tft.lth.se

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InDeV goals:

- develop an integrated methodology to study VRU accidents

and

- improve assessment of VRU-accident costs

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“Integrated methodology”:

<table>
<thead>
<tr>
<th>Aims</th>
<th>Method</th>
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<tbody>
<tr>
<td></td>
<td>Epidemiological</td>
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<tr>
<td>Assessing and monitoring the safety situation</td>
<td>M</td>
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<tr>
<td>Determining risk factors</td>
<td>C</td>
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<tr>
<td>Identifying critical locations (black spots), RNSA</td>
<td>C</td>
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<tr>
<td>Determining accident contributory factors</td>
<td>M</td>
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<tr>
<td>Assessing data quality/underreporting</td>
<td>C</td>
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<tr>
<td>Estimating accident costs</td>
<td>M</td>
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<tr>
<td>Before-and-after evaluation</td>
<td>M</td>
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Source of Information:
- **M**: Main
- **C**: Complementary

*most development happens here*
Traffic conflicts

just one step below accidents -> very similar

- Serious conflicts
- Slight conflicts
- Potential conflicts
- Undisturbed passages

- Fatal
- Severe injury
- Slight injury
- Damage only

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Traffic conflicts literature

![Chart showing the number of publications per year, with a focus on 2012 and 2014. The chart includes a legend indicating included and not located publications.](www.indev-project.eu)
Technical tools for such studies

• Video analysis:
  – "Watch dog" - raise a flag when a conflict MIGHT happen
  – Advanced tracking – extracts trajectories, etc.

• Mobile APP for naturalistic walking/cycling (incl. single accidents/falls)
Watchdog

Road User Behaviour Analysis 1.1.0 - [RGB]

File  Detectors  Overlays  Window

Playback controls

Video files

Active detectors

Single Module [1]
Single Module [2]
Detailed analysis
Mobile app
InDeV’s output

- Methodology
- Technical support tools (open source)
- VRU safety handbook & software manuals
Thank you very much for your attention!