Pedelec legislation at the European level

Ceri Woolsgrove, ECF, Dublin, 2019
Electric Powered Assisted Cycle

- < 25 km/h assistance cuts out
- < Less 250 Watts Power
- Pedal assisted – no pedal no power
- Regulated for manufacturers like bicycles at CEN/ISO EN 15194 – not type approved
- Treated like bicycles across EU

- Average speed 1-3 km/h higher than bicycle
“Speed Pedelec”

- < 45 km/h assistance cuts out
- < Less 4kW Power
- Pedal assisted – no pedal no power
- Regulated like other motor vehicles - type approved
- Treated like moped/scooter across Member states

- Longer distances can be reached
- Average speed around 30 km/h
## EPAC Sales EU28

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>EPAC Sales (x 1,000)</td>
<td>98</td>
<td>173</td>
<td>279</td>
<td>422</td>
<td>588</td>
<td>716</td>
<td>854</td>
<td>907</td>
<td>1 139</td>
<td>1 364</td>
<td>1 667</td>
<td>2 050</td>
</tr>
<tr>
<td>Evolution (%)</td>
<td>76,53</td>
<td>61,27</td>
<td>51,25</td>
<td>39,34</td>
<td>21,77</td>
<td>19,27</td>
<td>6,21</td>
<td>25,58</td>
<td>19,78</td>
<td>22,15</td>
<td>23,01</td>
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</tbody>
</table>
E-bikes: Key benefits

**Keep cycling benefits:**
- Health
- Reliability
- Congestion busting
- Cost
- Storage
- Environment
- Combined mobility
- No license
- Use cycle infrastructure
- Bike sharing infrastructure

**Remove/reduce some cycling barriers:**
- Range
  - Now 10-20km as standard
- Hills
- Heat
- Strength concerns
  - Age, gender, disability
- Perception of Safety
  - Safe start
- Slowness
  - 25km/h – 45km/h
- Loads/goods / passengers
EU Electric Bike Regulations

- **Classic Pedelec**
  - ≤25 kph
  - ≤250 watts

- **L1eA Powered Cycle**
  - ≤ 25 kph
  - 250-1000 Watts

- **L1eB Speed Pedelec**
  - ≤ 45 kph
  - ≤ 4000 watts

- **L- Category E-motorbike**
  - Motorised only

- **Pedal Assisted Electric Bikes**
  - Type approved

- **Powered Cycle**
  - moped

- **Motorbikes**

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CEN regs

E-bikes
Inconsistency in EU legislative definitions of EPACS and electric bikes

<table>
<thead>
<tr>
<th>Type</th>
<th>EU Type Approval 2013</th>
<th>EU driving license Directive 2006</th>
<th>General state of Member States road rules (are these treated as bicycles?) - now</th>
<th>CPA 2008 - EU Statistical Classification of Products by Activity, as basis for EU VAT rates reform</th>
<th>EU insurance Directive under Commission plans - upcoming</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;Conventional&quot; non-motorised bicycles</td>
<td>Exempt = bicycle</td>
<td>Exempt = bicycle</td>
<td>Exempt = bicycle</td>
<td>Exempt from standard VAT obligation (CPA subcategory 30.92 Bicycles (not motorised) + invalid carriages)</td>
<td>Exempt = bicycle</td>
</tr>
<tr>
<td>250 watt EPACs</td>
<td>Exempt = bicycle</td>
<td>Exempt = bicycle</td>
<td>Exempt = bicycle</td>
<td>Included in standard VAT obligation (CPA subcategory 30.91.13 (Motorcycles n.e.c.; side-cars))</td>
<td>Included (motor Vehicle)</td>
</tr>
<tr>
<td>250 watt cargo bikes</td>
<td>Exempt = bicycle</td>
<td>Exempt = bicycle</td>
<td>Exempt = bicycle</td>
<td>Included in standard VAT obligation (CPA subcategory 30.91.13 (Motorcycles n.e.c.; side-cars))</td>
<td>Included (motor Vehicle)</td>
</tr>
<tr>
<td>Higher Powered Speed pedelecs</td>
<td>Included L1-eB (motor Vehicle)</td>
<td>Unclear as two definitions are in opposition. Plus points to old legislation</td>
<td>mainly moped motor vehicle</td>
<td>Included in standard VAT obligation (CPA subcategory 30.91.13 (Motorcycles n.e.c.; side-cars))</td>
<td>Included (motor Vehicle)</td>
</tr>
<tr>
<td>Higher power cargo bikes</td>
<td>Included L1-eA (motor Vehicle)</td>
<td>Unclear as two definitions are in opposition. Plus points to old legislation</td>
<td>mainly moped motor vehicle</td>
<td>Included in standard VAT obligation (CPA subcategory 30.91.13 (Motorcycles n.e.c.; side-cars))</td>
<td>Included (motor Vehicle)</td>
</tr>
<tr>
<td>&quot;Twist and go&quot; non-pedalled electric bikes</td>
<td>Included L1-eA (motor Vehicle)</td>
<td>Exempt as long as less than 25 km/h</td>
<td>mainly moped motor vehicle</td>
<td>Included in standard VAT obligation (CPA subcategory 30.91.13 (Motorcycles n.e.c.; side-cars))</td>
<td>Included (motor Vehicle)</td>
</tr>
<tr>
<td>All other higher power electric bikes</td>
<td>Included as motor vehicle</td>
<td>Included as Motor Vehicle</td>
<td>Treated as motor vehicle</td>
<td>Included in standard VAT obligation (CPA subcategory 30.91.13 (Motorcycles n.e.c.; side-cars))</td>
<td>Included as Motor vehicle</td>
</tr>
<tr>
<td>Electric cars</td>
<td>Included as motor vehicle</td>
<td>Included as motor vehicle</td>
<td>Included as motor vehicle</td>
<td>Exempt from standard VAT obligation (CPA subcategory 29.10.24 Other Vehicles for the transport of persons)</td>
<td>Included as motor vehicle</td>
</tr>
</tbody>
</table>
Original Directive “...any motor vehicle intended for travel on land and propelled by mechanical power but not running on rails, and any trailer whether or not coupled”

European Commission “use of a vehicle’ means any use of such vehicle...consistent with the normal function of that vehicle...irrespective of the terrain on which the motor vehicle is used and of whether it is stationary or in motion
European Parliament restores sanity

- Type Approval now defines the scope
- If countries wish to have a national insurance for other vehicles then so be it
Pedelecs/EPAC ≠ motor vehicle!

1. EPACs are not motorised vehicles
   a) Bicycles with assist – no pedal no power – Motor Vehicle in no other regulation

2. Inclusion would act as a barrier to EPACs
   a) Need to keep it as bicycle like as possible

3. EPACs are not an overly risky mode of transport
   a) They are as risky for others as bicycles – completely different risk that motor vehicles

4. Inclusion will increase administrative burden
   a) Changing insurance regime or be criminalised
   b) Strict liability
   c) Most already insured
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Thank you

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