



41ST ASECAP STUDY & INFORMATION DAYS 2013

Promoting Sustainable Growth The Role of the Toll Roads

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ECOTAXE CERTIFICATION: *TAILORING AN EFC SYSTEM*

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INTRODUCTION

French «Ministère de l'Ecologie, du Développement durable et de l'Energie», customer of the Ecotaxe project, built up a two-step validation process:

1. Product certification
2. System homologation (end-to-end functional verification)

Autostrade Tech's, as Ecomouv's supplier, owns two products that fall under the scope of Ecotaxe certification:

- OBU (we supply 4 different versions)
- LAC

Other products under certification:

- Enforcement systems, fixed and mobile



A DEEPER GLANCE

Certification means proof of conformance to specification.

Who set the rules?

French MEDDE identified a series of specification:

- From international and national standards (electrical, environmental, functional)
- From *ad hoc* requirements (human-machine interface, security and others...)

Who does the job?

- Laboratories
 - Test conformance to every single article
- Certification bodies
 - Analyses all product conformance and delivers certificates
- COFRAC - French accreditation body
 - Grants accreditation to Labs and certification bodies

A DEEPER GLANCE: ON-BOARD UNITS

22 certification articles:

- EETS
- Electrical conformance, RTT&E, EMC
- Environmental
 - Hygrometry, temperature, IP
- Resistance to shocks and vibrations
- Resistance to electrical discharges
- Specific: tampering, power, HMI, autodiagnosics, ...
- Security: under ANSSI (French National Security Agency) specifications
- DSRC: LAC, CCC

A DEEPER GLANCE: LACs

25 certification articles (most topics are the same as for OBUs - test specs change!):

One important example: «article 29» to LAC

Field communication tests with all OBUs «under certification» (known to be issued in Ecotaxe) according to an 'interpretation' of CEN ISO/TS14907-1

- Such an interoperability test inserted in the LAC certification framework causes:
 - Responsibility issues: in case of failure, only LAC would fail certification
 - Consistency issues: if any OBU is updated, or a new model is introduced, LAC certification needs to be reviewed
 - Practical issues: OBUs from 3 different vendors had to be gathered
- Test parameters were defined to cover all real-life installation cases in France: road condition and installation

LESSONS LEARNED

Non-standardised requirements and «strong personalisation» of Standards:

- Are hard to manage by manufacturers and laboratories,
- May cause normative anomalies,
- Need extra effort to carry out tests.

Heavy *Ad hoc* accreditation programmes:

- Narrow down the number of available test labs and certif. bodies
- Actually reduce the admittance of foreign Bodies

So what?

Certification
is often underestimated
is often undersized
is often underrated