



**SUR LA VOIE  
DU GIU**



# **UNECE level crossing expert group**

## ***Enforcement sub-group***

Third meeting of the expert group

Geneva, October 23<sup>rd</sup>-24<sup>th</sup> 2014

RFF, SNCF INFRA, DCF  
●●● Trajectoire GIU

## SUR LA VOIE **DU GIU**

- ✓ 24 responses from 22 countries
- ✓ 17 countries enforce level crossing violations
- ✓ Among countries which don't enforce LC violations, only Spain considers that it might be beneficial to implement an enforcement regime (not the case of Georgia, Sweden, Estonia, Norway)
  
- ✓ Type of violations enforce:
  - ✓ Speed (Republic of Moldavia, France, Hungary, Turkey)
  - ✓ Red light (Republic of Moldavia, France, Hungary, Greece, Germany, Romania, Italia, Belgium, Portugal, Turkey, Switzerland, United Kingdom)
  - ✓ Signals of LC (Republic of Moldavia, France, Hungary, Poland, The Republic of Belarus, Belgium, Portugal, Turkey, Switzerland, United Kingdom)
  - ✓ Barriers strikes (Ireland, Romania, Italia, Belgium, Turkey)
  - ✓ Collision between a road vehicle with a train (India, The Republic of Belarus)
  - ✓ User persistently leaving the gates open at a user-worked LC (Ireland)
  - ✓ Blocking (Belgium, Portugal, Turkey, United Kingdom)
  
- ✓ Type of tools:
  - ✓ Radar (France)
  - ✓ Police (India, Republic of Moldavia, France, Germany, Greece, Romania, The Republic of Belarus, Portugal, Bulgaria, Turkey, Switzerland, United Kingdom)
  - ✓ Camera (Hungary, Republic of Moldavia, Germany, Ireland, Romania, Italia, The Republic of Belarus, Belgium, Bulgaria, Turkey, United Kingdom)
  - ✓ Railroad guard (Poland)
  - ✓ Forward facing camera (Ireland)
  - ✓ Infrastructure manager (Ireland, Portugal)
  - ✓ Test with obstacle detection (Belgium)

✓ Advantages

✓ In France, we noticed a real decrease of collisions barriers broken

✓ Republic of Moldavia, advantages of cameras - you can not change the video material, and it is working all time excluding human factor.

✓ India: the legal action against the defaulters acts as a deterrent against the careless road vehicle users using the unmanned level crossings.

✓ In Germany, supervision by police is only partially possible

✓ Poland: effectiveness, direct educational impact by raising the awareness, instructing, imposing fines, increasing public awareness of the threats existing at and the results of accidents at level crossings, visualization of level crossing accident results.

✓ Greece: the CCTV cameras has the advantage of constant 24 hours inspection for any violation of all the users

✓ Ireland: Forward facing cameras on trains provide useful information for prosecution. Surveillance cameras can be very helpful in encouraging users of passive user-worked crossings to shut the gates after them.

✓ Belgium

✓ Police officers: - advantage: flexibility, effective solution.

✓ Cameras: - advantage: continuous control

✓ Turkey

✓ The cameras operate 24 hours and it is more economic.

✓ With camera devices: it is useful to be created a sense of watching for drivers and violations are reduced. Especially, in Turkey, red light, spot speed and mean speed cameras are efficient

✓ Patrol enforcement: perceived risk of being caught is higher

✓ Disadvantages

✓ Republic of Moldavia, the disadvantages of police - human factor and presence at the moment and place of rules violation.

✓ Poland: involvement of significant resources at the rail-road level crossings means that the number of the Railway Guards working at other, safety-crucial areas is limited, high costs of the additional activities in this area.

✓ Greece: the police enforcement has the disadvantage of rarely inspections

✓ Ireland: However, the information from these cameras is more difficult to use for prosecution, and surveillance can cause bad feeling in rural communities

✓ Republic of Belarus: When the duties at level crossings identify the violations, they not always take measures to drivers who violate the traffic rules. It is necessary to create the automation system of the fixing of violations at public level crossings using the video surveillance systems and transmission the information about the violations directly on video terminals of the traffic police.

✓ Portugal: Not having a specific transport police, It is difficult for the regular police to cover all the LC all the time

✓ Belgium

✓ Police officers: disadvantage: occasional control

✓ Cameras: disadvantage: problems with accreditation

✓ Turkey

✓ Patrol enforcement: Sustained enforcement is not possible.

✓ Camera devices: If this application is done in unsuitable places, rear-end and side swipe collisions may increase.

✓ Some countries encountered problems (12 countries)

- ✓ Republic of Moldavia has encountered a series of problems such as regulation, technical, economic challenges and lack of experts.
- ✓ India has typical program in area of enforcement due to the huge number of level crossings. As on 1.4.2014, there are 30348 level crossings out of which 18725 are manned and 11563 are unmanned. So, it become very problematic to keep a tab on behavior of level crossing users specially the defaulters. Moreover, in India there is dedicated police force or Enforcement Officer to regulate the level crossing users. Additionally, Indian Railway has till now implemented any automatic barrier or any pre-warning audio visual device to warn the road users of incoming train. So, the safety at level crossings is left totally on discretion of the road users.
- ✓ Hungary have a lack of financial resources and creating the legal and technical conditions
- ✓ Greece have
  - 1) TECHNICAL PROBLEMS: SUCH AS THAT THE VIDEO PURE RESOLUTION ANALYSIS, COULDN'T SHOW THE IDENTITY NUMBER PLATES OF THE USER'S VEHICLE
  - 2) ECONOMICAL CHALLENGES:
    - A) THE COST OF HIGH DEFINITION CCTV CAMERAS
    - B) THE COST OF HUMAN POLICE MANPOWER
- ✓ Poland have different problems :
  - ✓ No human resources available
  - ✓ no adequate national legislation authorizing the introduction of modern solutions (e.g. acoustic lines along roads leading to level crossings)
  - ✓ cost of installation and maintenance of new equipment
  - ✓ differing condition of infrastructure on selected railway sections.
- ✓ Ireland Data protection issues and issues of right to privacy, especially with surveillance cameras in situ. Need to ensure that the area under surveillance is completely within the boundary of the railway.
- ✓ In Russia: remains open problem liability for violation of the rules of intersection crossings
- ✓ In Italy, it's economic challenges
- ✓ Belgium have problems for the test-case "Cameras" accreditation and follow-up of fines by the court.
- ✓ Portugal meets difficulty on using CCTV due to privacy laws.
- ✓ Bulgaria meets economic problems
- ✓ In Switzerland, Effectiveness of elimination and technical upgrading depends largely on fundings, Changing (more risky) behavior of road users (esp. pedestrians and cyclists)

- ✓ Only 11 Countries collect any data related to enforcement
  - ✓ Republic of Moldavia collect number of violations and type of vehicles, results of enforcement.
  - ✓ Indian Railway collects data regarding number of violations on level crossing
  - ✓ In Hungary, data are collected by more institution (police, railway companies), but are not standardized. Collection of data need to be developed.
  - ✓ Germany collect number of violations depending on type of violation
  - ✓ Ireland have very little data is publically available.
  - ✓ Poland collect number of fines, instructions, number of persons controlled, brochures handed out, sobriety tests, number of persons handed over to the Police, number of fines imposed, statistical summaries, humans resources
  - ✓ Romania collect the number of violations
  - ✓ Belgium collect number of violations (police reports)
  - ✓ In Portugal, it's police who collect data
  - ✓ Turkey collect number of violations
  - ✓ France collect number of violations by State and number of accident since setting up the radars

- ✓ Additional information related to enforcement that you deem appropriate
  - ✓ Indian Railway feels that indeed there should be dedicated Enforcement Officer to regulate the behavior of road user on level crossing and this should be brought as a standard Rule to be followed by all nations which are associated with UNECE/UN.
  - ✓ Poland use of modern security means (e.g. monitoring, two-level railroad crossings).
  - ✓ Italy need of enforcement through CCTV

**Thank you for your attention**

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