

ANNEX II

SUBSYSTEMS

1. List of subsystems

For the purposes of this Directive, the system constituting the rail system may be broken down into the following subsystems, either:

- (a) structural areas:
 - infrastructure,
 - energy,
 - control-command and signalling,
 - rolling stock;
- (b) functional areas:
 - traffic operation and management,
 - maintenance,
 - telematics applications for passenger and freight services.

2. Description of the subsystems

For each subsystem or part of a subsystem, the list of constituents and aspects relating to interoperability is proposed by the Agency at the time of drawing up the relevant draft TSI.

Without prejudging the choice of aspects and constituents relating to interoperability or the order in which they will be made subject to TSIs, the subsystems include, in particular:

2.1. Infrastructure

The track, points, engineering structures (bridges, tunnels, etc.), associated station infrastructure (platforms, zones of access, including the needs of persons with reduced mobility, etc.), safety and protective equipment.

2.2. Energy

The electrification system, including overhead lines and on-board parts of the electric consumptions measuring equipment.

2.3. Control-command and signalling

All the equipment necessary to ensure safety and to command and control movements of trains authorised to travel on the network.

2.4. Operation and traffic management

The procedures and related equipment enabling a coherent operation of the different structural subsystems, both during normal and degraded operation, including in particular training and train driving, traffic planning and management.

The professional qualifications which may be required for carrying out cross-border services.

2.5. Telematics applications

In accordance with Annex I, this subsystem comprises two elements:

- (a) applications for passenger services, including systems providing passengers with information before and during the journey, reservation and payment systems, luggage

management and management of connections between trains and with other modes of transport;

- (b) applications for freight services, including information systems (real-time monitoring of freight and trains), marshalling and allocation systems, reservation, payment and invoicing systems, management of connections with other modes of transport and production of electronic accompanying documents.

2.6. Rolling stock

Structure, command and control system for all train equipment, current-collection devices traction and energy conversion units, braking, coupling and running gear (bogies, axles, etc.) and suspension, doors, man/machine interfaces (driver, on-board staff and passengers, including the needs of persons with reduced mobility), passive or active safety devices and requisites for the health of passengers and on-board staff.

2.7. Maintenance

The procedures, associated equipment, logistics centres for maintenance work and reserves allowing the mandatory corrective and preventive maintenance to ensure the interoperability of the rail system and guarantee the performance required.