

## UC1: “Passport”

- *Context of use.* The driver or the company, according to the initially defined route, notifies the system of estimated time of passage through an infrastructure and books the passage through a relevant request.
- *Primary actor.* Driver or company.
- *Input (trigger).* The user (driver or company) provides the vehicle and cargo data, notifies the system of the estimated time of arrival of the specific vehicle at a specific infrastructure and makes a request for passage approval and booking.
- *Output.* The system returns the answer to the user (driver or company) with regard to allowance of passage (potentially with a receipt of booking. For alternative cases, please see at the *connected UCs and extensions*).
- *Main success scenario(s).*
  - ⇒ **Step 1:** The user makes a request for the permission of passage to the infrastructure at least 24 hours before the estimated time of arrival at the infrastructure. Vehicle and load info are provided to the infrastructure in the context of the request.
  - ⇒ **Step 2:** The system provides the permission of passage on behalf of the infrastructure or notifies for non-feasibility of booking (see *connected UCs and extensions*) within a time horizon of 15 minutes from the time of request.
  - ⇒ **Step 3:** When vehicle arrives at the infrastructure, it is allowed to pass by priority, even in traffic congestion case. The time-horizon of allowed passage is 30-40 minutes around the declared/booked time of arrival.
- *Connected UCs and extensions.* An extension of the UC is the booking of special transits (i.e. big caravans, big amounts of loads or cargo, associated with high level of risk, etc.), where a permission for “special passage” is required and the request for passage booking should be made at least 3 days before by the user. In case of non-feasibility of passage at the requested time, the system has two options (after user consent): either identifies another time of passage through the specific infrastructure, which is close to the initially requested one, or, if this is not possible at all, due to many reasons, such as big expected traffic, business reasons, etc., it initiates the procedure for re-routing (see UC’s 3,4). Moreover, there is a connection to UC9. If the driver is notified for incidents ahead that will cause delays or will totally hinder him from passing through the specific infrastructure, then a relevant notification should be done from the driver (or the system automatically, when receiving the relevant info).
- *Indicative scenario(s) of use.*
  - ⇒ “Vehicle X<sup>1</sup> (if the user is the company) or I (if the user is the vehicle) need/s to pass the Y tunnel around 19:00pm tomorrow”.

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<sup>1</sup> X refers to the ID of the vehicle and the load.