

## UC4: “Business-related re-routing”

- *Context of use.* The system identifies an imminent business-related reason for re-routing (i.e. change of customer site, need for re-fuelling, etc.) and provides the driver with the most optimum re-routing solution with regard to safety together with estimated time of arrival at destination. In case the initial routing has not been planned by the system (and therefore the vehicle, load and route data including destination, etc. are not stored) and the criteria for routing remain the same (same destination, same wanted time of arrival, etc.) then the system, before starting the estimation for the safest route planning, it makes a request to the driver (or the company) to uptake the needed info. In case the request for re-routing is done by the driver or the company and is not output of the system, then the system requests all aforementioned info again, updated with the new criteria. As soon as the driver (company) consent about re-routing is provided, all involved actors in the logistics chain are notified on new expected time of arrival at destinations (UC6).
- *Primary actor.* System (which however may use as an input a relevant notification/request by the company).
- *Input (trigger).* The system identifies need for business-related re-routing (either own estimation or request/notification from the company).
- *Output.* The system processes with the alternative “safest” re-routing planning and provides it to the driver together with notification about estimated time of arrival.
- *Main success scenario(s).*
  - **Step 1:** The system identifies need for re-routing.
  - **Step 2:** The system plans the new “safest” route alternative and provides it to the user, together with any confirmation of passage booking through “special infrastructures” and a notification on estimated time of arrival in declared destination, within a time horizon of 5 minutes from the time of re-routing identification and asks for driver receipt of route guidance and approval of alternative route.
  - **Step 3:** The user approves/confirms the system given alternative and the system initiates re-routing according to the system guidance.
  - **Step 4 (UC6):** *As soon as driver confirms the re-routing proposal acceptance, all involved actors in the logistics chain (mainly customers and company) are notified about new expected time of arrival at declared destination(s).*
- *Connected UCs and extensions.* As in UC3.
- *Indicative scenarios 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 also from intermediate Y destination (i.e. gas station) before it/I reach/es final destination”.
  - ⇒ “Vehicle X (if the user is the company) or I (if the user is the vehicle) need/s to refuel within 2 hours at most”.
  - After the first re-routing...*
  - ⇒ “I need another alternative route”.
  - ⇒ “I have to be at destination Y with a delay of 1 hour at most”-“UC2”.

---

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