#### **2.2.1.4. Payment Management - PM**

* **FR-PM-1:** Registered users will have a virtual payment account (VPA) associated with their identity.

1. Registered Users have a profile section with the VPA settings menu
2. The sub-section has a form for non configured accounts
   1. The form asks for the credit card number, expiration date, card pin
   2. The user has to validate its identity
   3. The card remains set for future payments in time
3. Accounts with already configured VPA will have an option to add more cards

* **FR-PM-1.1:** VPAs will initially have a balance of 0 credits. One VPA credit is equivalent to €1. Credits can be divided into cents.

1. The User has a balance section on his profile
2. The current credit is displayed in units and cents

* **FR-PM-2:** VPAs will manage available credits

1. Available credits are the amount of credits that the user can use at a given moment.
2. Blocked credits are user’s credits reserved by the system as a guarantee of
3. payment for booked rides. Blocked credits cannot be used by the user unless they are unlocked.
4. Total credits are the total amount of credits associated with the account at a given moment (the sum of available + blocked credits).

* **FR-PM-3:** Authenticated users can transfer credits to their VPA from their bank account through an operation by means of virtual POS (online payment).

1. The user has a “Deposit” option on its balance section.
2. The user enters the desired amount to add to the account.
3. The system proceeds with the POS tool.
4. Transferred credits will be added to the available ones.
   1. The new credit is computed and displayed.

* **FR-PM-4:** Users will be able to request the reimbursement of all or part of their "available" credits in their VPA to a bank account.

1. The user has a “Withdraw” option on its balance section.
2. The user enters the desired amount to subtract from the account.
3. The system proceeds with the reimbursement module.
4. In case of success, the system will deduct the reimbursed amount of available VPA credits.
   1. The new credit is computed and displayed.

* **FR-PM-5:** When a driver confirms that he/she has made a ride with a passenger, the transferred credits will be added as available credits of the driver and will be deducted from the blocked credits of the passenger.

1. The driver confirms a drive with a specific passenger is over.
2. Credits blocked from the passenger VPA are transferred to the drivers VPA.
3. New balances are computed in both accounts.

* **FR-PM-5.1:** When a ride is canceled, the corresponding blocked credits are refunded to its respective owners (unblocking them, subtracting them from the blocked credits and adding them to the available credits).

1. The driver cancels a ride
   1. Some passenger cancels a certain ride
   2. The passenger specifies the reasons to cancel the ride
2. The credits are unblocked and remain in the passengers VPA
3. The new balance is re-computed

# UFP Details

### **Functional Requirements - FR**

* **FR-PM-1:**

**EI-Form to add a new credit card**

DET:

* + Credit card number
  + card owner name
  + expiration date
  + card pin
  + submit button

FTR:

* + user information

Conclusion: The complexity is Low with 5 DET and 1 FTR

* **FR-PM-1:**

**EI-Balance section request**

DET:

* + button to balance section

FTR:

* + user information

Conclusion: The complexity is Low with 1 DET and 1 FTR

* **FR-PM-1:**

**EO-Balance section page display**

DET:

* + available credits
  + blocked credits
  + total credits
  + transfer credits button
  + reimburse credits button

FTR:

* + VPA information
  + user information

Conclusion: The complexity is Low with 5 DET and 2 FTR

* **FR-PM-1:**

**EO-Summary of credit cards for a user**

DET:

* + card number
  + card expiration date
  + card type
  + delete card button
  + add card button

FTR:

* + VPA information
  + user information

Conclusion: The complexity is Low with 5 DET and 2 FTR

* **FR-PM-3:**

**EI-Form to transfer credits to the VPA**

DET:

* + card to be used
  + amount of credits
  + submit button

FTR:

* + VPA information
  + user information

Conclusion: The complexity is Low with 3 DET and 2 FTR

* **FR-PM-4:**

**EI-Form to reimburse credits from the VPA**

DET:

* + card to be used
  + amount of credits
  + submit button

FTR:

* + VPA information
  + user information

Conclusion: The complexity is Low with 3 DET and 2 FTR

* **ILF:**

**ILF-VPA**

DET:

* + available credits
  + blocked credits
  + total credits
  + user info
  + credit card

RET:

* + mandatory information all of the above
  + extra credit cards

Conclusion: The complexity is Low with 5 DET and 2 RET

* **ILF:**

**ILF-User credit card**

DET:

* + Credit card number
  + card owner name
  + expiration date
  + card pin

RET:

* + One subgroup, all are mandatory

Conclusion: The complexity is Low with 4 DET and 1 RET

* **EIF:**

**EIF-POS transaction terminal**

DET:

* + payer banking information
  + receiver banking information
  + amount of credits
  + product concept

RET:

* + One subgroup, all are mandatory

Conclusion: The complexity is Low with 4 DET and 1 RET