**Goals**:

**G1) Third parties can monitor the position and the health status of the individuals.**

D1) The measurements of the health status parameters of the individuals are supposed to be reliable.

D2) The position of the individuals is supposed to be reliable.

D8) The location of a registered user is acquired by his smartphone used by the user himself.

D9) Data related to the health status of a registered user are acquired by smartwatches or similar devices used by the user himself.

R1) The users must have given the consensus to the treatment of their information to the third party.

R2) The system must be able to provide to the third party the location and the health status of individuals.

R3) The system must be able to retrieve data from the smartwatches and similar devices.

R27) The system must be able to store data retrieved from registered users.

**G2) Third parties can access the anonymized data of the groups of individuals.**

D1) The measurements of the health status parameters of the individuals are supposed to be reliable.

D8) The location of a registered user is acquired by his smartphone used by the user himself.

D9) Data related to the health status of a registered user are acquired by smartwatches or similar devices used by the user himself.

R3) The system must be able to retrieve data from the smartwatches and similar devices.

R4) The groups must be composed at least by 1000 individuals.

R5) The system must be able to provide to the third party the health status of individuals in an anonymous way.

R6) The system must be able to aggregate the data of the individuals, as requested by the third party.

R27) The system must be able to store data retrieved from registered users.

**G3) The user can accept or refuse the requests concerning the treatment of his/her personal data by the third parties.**

R7) The system must be able to forward the requests from the third party to the user.

R8) The system must save the preference of the user.

R9) The third party is not allowed to access the user’s data until he/she accepts the request.

**G4) The third party can ask to subscribe to new data and receive them as soon as they are produced.**

D3) The data acquired from the user’s devices are sent to the mobile application as soon as they are produced.

D9) Data related to the health status of a registered user are acquired by smartwatches or similar devices used by the user himself.

R10) The data acquired by the mobile application are sent to TrackMe servers as soon as an internet connection is available.

R11) The system is optimized to send the data received from the mobile application to the third parties as soon as possible.

**G5) The user can stop the subscription of the third party to his/her data at any time.**

R28) The user must have an active subscription to stop it.

R29) The system must be able to allow the user to unsubscribe to the third party and to stop the transmission of his/her data.

**G6) The user can be recognized by providing a form of identification.**

D4) The identification data provided by the users are correct.

R12) The users must provide their personal data to the application during the registration process, SSN (or fiscal code) included.

R13) The user can register to the application by selecting a username and a password.

R14) The user can log in to the application by providing the combination of a username and a password that matches an account.

R15) Two different users cannot have the same username.

**G7) The third party can be recognized by providing a form of identification.**

D5) The identification data provided by the third parties are correct.

R16) The third party can register to the application, by specifying its VAT registration number and a password.

R17) The third party can log in to the application by providing the combination of a VAT registration number and a password that match an account.

R18) When the health status values go below the threshold an SOS is sent within 5 seconds.

**G8) The user can check the position of the runners at any time during a race.**

D2) The position of the individuals is supposed to be reliable.

D8) The location of a registered user is acquired by his smartphone used by the user himself.

R19) The system must be able to retrieve the position of all the runners.

R20) The system must be able to provide the position of all the runners in the track in real time.

**G9) When the health status of the user is in danger, an SOS is launched and an ambulance is sent to the user’s current position.**

D6) When an SOS is launched, an ambulance is sent to the position of the user linked to the account that raised the SOS itself.

D8) The location of a registered user is acquired by his smartphone used by the user himself.

D9) Data related to the health status of a registered user are acquired by smartwatches or similar devices used by the user himself.

R18) When the health status values go below the threshold an SOS is sent within 5 seconds.

R25) The AutomatedSOS service must be enabled.

**G10) A user can participate to the available races.**

R21) The user can check the list of available races at any time.

R22) The user can join an available race only before its starting time.

R23) The user cannot join two different overlapping races.

R30) The system must avoid the registration of users after having reached of the maximum number of participants.

**G11) A third party can organize a race and define the path for the run.**

D7) The race takes place in an area with internet coverage and in a compliant track.

R24) The system must allow the third party to organize a race by defining its track and its time.

**G12) The user can enable/disable the AutomatedSOS service at any time.**

R26) The system must allow the user to enable/disable the AutomatedSOS service at any time.

**Domain assumptions:**

D1) The measurements of the health status parameters are supposed to be reliable.

D2) The position of the individuals is supposed to be reliable.

D3) The data acquired from the user’s devices are sent to the mobile application as soon as they are produced.

D4) The identification data provided by the users are correct.

D5) The identification data provided by the third parties are correct.

D6) When an SOS is launched, an ambulance is sent to the position of the user linked to the account that raised the SOS itself.

D7) The race takes place in an area with internet coverage and in a compliant track.

D8) The location of a registered user is acquired by his smartphone used by the user himself.

D9) Data related to the health status of a registered user are acquired by smartwatches or similar devices used by the user himself.

**Requirements**:

GLOBAL REQUIREMENT: Third parties and individuals must have registered and logged in to use the services.

GLOBAL REQUIREMENT: The app works in background.

GLOBAL REQUIREMENT: There must be a fully working connection between the application and the smartwatches or similar devices.