## Scope management

**Requirements management**

In Greepam project requirements management will be responsibility of the Project Manager. Initial requirements were collected during project initiation and are listed in the project plan. The scope was defined through a comprehensive analysis of company PR needs and policies during requirements collection process and is described in work breakdown structure as well as in deliverables specification. Some details of technical solutions will be specified upon completion of Initial design milestone, however overall technical design and requirements are clear. Feasibility the requirements was confirmed by the Architect.

Proposed scope changes may be initiated by stakeholders or any team member. All changes for scope have to be introduced in accordance with scope change management procedures defined in change management section.

Project manager supported by the architect and Development Team leader, will periodically verify progress of the project, at least once every sprint, in terms of scope, priorities and accordance to requirements. To ensure project is consistent with the scope, every interim and final deliverable as well as achievement of the milestone has to be accepted by Project sponsor during project status meeting. On the meeting Project Manager will present the deliverable and prove it’s coherency with requirements and schedule.

**Deliverables specification**

This paragraph provides definition of expected deliverables, by stating what is required, what is optional and what is not part of the deliverables. Deliverables can be categorized as software and process, both leading to achieve primary goal of the Greepam project, which is development of Corporate Social Responsibility.

*Software requirements are presented below:*

Software deliverables include mobile applications (code name: Kompass), server side applications (code name: Tree house) and web interface applications (code name: Tree monitor)

Kompass should track commute from home location to destination being EPAMs office and back. User should have a possibility of specifying home location by address or coordinates. Destination is EPAMs office where user spends work time and user can select it from predefined list.

User should have a possibility of choosing in Kompass a mean of transport and Kompass should have ability to verify credibility of user choice and recognize the way user commutes, distinguishing five categories i.e. walking, riding a bike, public transport, car sharing, individual car commute.

Car sharing is defined as commuting by privately held car in group of two or more EPAMs employees that covers majority (at least 50%) of distance from home location to EPAMs office of each user that constitutes a car sharing group.

Kompass should track the path of commute and distance covered including name of the user, coordinates, velocity and stops

User can check in Kompass availability of the parking lot at present time and predicted at the time of arrival.

User should be warned by Kompass if there is little or no availability of parking lot at destination, specific for mean of transport chosen by the user.

User can check in Kompass benefits points gather in Greepam program. Benefit points should be graphically represented as tree leafs.

User can check in Kompass how much pollution would be emitted if instead of ecological commute, individual car commute was used.

Kompass should be able to execute on Android 5.0 or above and iOS 6.0 or above on medium price devices (up to $650)

Kompass should transfer all data in real time by mobile networks or WiFi to Tree house executing on remote EPAMs servers.

Tree house software should collect data from up to 1500 users at a time and store up to 60 days of history for users.

Tree house should calculate benefit points based on the algorithm developed in process part of the project.

Tree house should calculate and Tree monitor web interface should present summary of statistics of individual users and group of users, means they commute, their benefit points collected, path from users home to EPAM office on the map.

Tree house should calculate and Tree monitor should present opportunity to lower capacity of parking lots in case utilization is low.

Tree monitor web interface should present statistics of using parking lot capacity over past 30 days.

Tree monitor web interface should be compatible with Google Chrome ver. 42 or above, Microsoft Internet Explorer ver. 11 or above and Safari web browser.

All software should be documented in terms of architectural decisions made, usability, user manuals and contain test evidences for all use cases corresponding to requirements.

All third party libraries should have decision path documented (why and what were the alternatives) and usage of commercial third party software should be justified while its price be limited to $1000 in total.

*Software constraints (what it’s not):*

All software (Kompass, Tree house, Tree monitor) should support at least 1500 users (i.e. number of EPAM employees in Krakow in 2017) with specification as above, but not necessarily more than that. It is considered as nice to have, though not in scope of the project to make the software expandable for greater number of users. If there is a need to handle greater number of users, additional project need to be run.

All software functionality is limited to the borders of the Kraków city (Poland) and up to 15 kilometres away from city borders. It is out of scope for the project to adjust it to work for any other location.

Kompass software can use various data gathered and shared by the Smartphone it executes on, such as e.g. user location but for user privacy, it should not track anything that is irrelevant to the core functionality of the project.

Non-statistical data (that concerns individual users), private data and personal data gathered by the software should not be shared with any third party unless clearly stated and approved by the user.

*Campaign and process deliverables requirements are presented below:*

Campaign should be held in public media including local newspaper or magazine and local or national TV channel and at least 5 billboards in proximity of EPAMs office.

Campaign should consists of two parts: informing about initiative start and informing about progress and results 2-3 weeks after it has started.

Second part of campaign should include statistics about how much pollution was not emitted (particles and carbon dioxide) on average thanks to the initiative.

As part of promotional campaign, opening party to all EPAM employees should be given.

Process should design an algorithm for assigning benefit points (leafs) for the users that make use of ecological means of transport from home to EPAMs office.

Benefit points should be proportional to the distance covered (the longer distance covered, the more points assigned) and mean of commute.

Process should prioritize riding a bike and walking over public transport and car sharing should be least valuable in terms of benefit points for a unit of distance.