

Terms of References

Game development

A. Project Title

Serious game for Project 21

B. Project description

Project 21 (P21) is an initiative managed by Friedrich-Ebert-Stiftung. The main goal of P21 is to develop and disseminate a serious game on civic education topics such as active citizenship, civic participation, good governance, elections, global citizenship. The game also includes components of Social and Emotional Learning.

The project has taken a participatory approach and conducted several game design workshops and joint hackathons with all the 12 participating countries from the Arab World. As a consequence, it was decided to develop a mobile game that allows for collaboration on a macro level and competition on a micro level.

The game (with a working name 2121) is based on a story that takes place in the near future (100 years from now). The backstory features three races: humans, machines (robots) and humanimals. The humans left on Earth are a small group of heroes/survivors who reside in an isolated small area that still provides the environment needed for humans to survive. They live together with a faction of humanimals, who side with them and compete together against the machines.

There are several stakeholders involved in the project. The contractor will be required to work and communicate on a trustful, transparent and frequent basis with each of these stakeholders. FES is in charge of the overall steering of the project. A team of project managers and topic experts (known as the Core Team) will consult and guide the project in all its phases. The contractor will develop the game itself and ensure the technical maintenance and frequent updates of the game throughout the entire implementation. A team of moderators will manage the community and will require access to the community backend of the game. A team of instructional designers will work on the learning concept in combination with several teams working on the creation of the learning content for the game. A team of digital security experts will consult the contractor on the topic of digital privacy and security. Finally, the community will be an active stakeholder since it is providing new content for the game and actively deciding and influencing the story progression.

The full version of the story and the general game concept are available in Annex I – High Concept note.

C. Scope of work

The scope of this work is to develop a comprehensive Game Design Document (together with the Project 21 Core Team) and produce a mobile game for IOS and Android (with a ported web version). It should contain all the features described in the High Concept Note (Annex I) and will be further defined in the Game Design Document and validated in the prototypes. The most concrete include:

1. Work on the Game Design Document together with the Project 21 Core Team
2. Development of three basic prototypes allowing for the game concept to be tested and validated by the early adopters
3. Development of the macro system of the game, which allows players to jointly take decisions (mainly through voting and advocacy) on the future shape and scope of the background story that involves the three races and camps.
4. Development of three mini games as part of the micro system – one multiplayer and two single player.
5. Conduct extensive testing: Serious Games require an extensive testing phase with the target group. As soon as the prototypes are ready to be tested, the contractor will take care of the testing phase to debug the system and adapt it to the needs of the target group. This includes technical bugs, visual adaptation, usability testing and navigation as well as the balancing of the game. Polls and surveys should be implemented to gain important information on how the game needs to be adapted.
6. Develop online admin interface, allowing for convenient update of game's content and addition of new features for both the web and the mobile games
7. Integrate multilingual support for both RTL and LTR languages.
8. Launch application on App Store and Google Play and hosting service for the web version and the mobile multiplayer features.
9. Ensure technical maintenance and support of the Serious Game for a duration of 12 months after publishing the game in the stores.
10. Ensure game development also throughout the implementation phase for a duration of 12 months after publishing the game in the stores. This requires frequent changes and updates to the functionalities, the game design, balancing, art etc. The game will constantly evolve based on feedback from the community. The contractor shall provide a minimum of 8 working hours per week to develop the game further and respond to the FES requirements.
11. Ensure the implementation of community content and expert content that is created throughout the project. The game is heavily reliant on content created and suggested by the community. After the selection of appropriate content by

the moderators, the contractor shall integrate it into the game. The shape of the content could be background stories of characters, art assets for new characters or buildings, sound files, new voting systems and suggestions for new functionalities. The contractor will agree with FES on the scope of this integration.

12. Ensuring a secure server environment and reacting to a fast growing number of players. If the number of players reaches a certain threshold (to be decided on the run, for instance 5,000 players per species), new camps for new species may need to be created by the contractor on the same server. If the number of players becomes excessive for one server, the contractor shall ensure the running of several public servers that are capable of hosting up to 2 million players.
13. Conducting different forms of implementation. The game will be implemented as a “Free to play” version with an unlimited number of players on public servers. Furthermore, FES might run the game as part of different training programmes or in schools in a condensed way. The contractor will set up a discrete private server for the training participants to play the game among selected players.
14. Conduct Impact Measurement: The game must include an impact measurement system (IMS) that is achieved through in-game questionnaires and the collection of data within the game (player progression, decisions taken etc.). The contractor will be responsible for collecting this data. It should be exportable as a well structured csv. file for a quick and easy overview of the impact of the game. The data collection and export must follow the guidelines of data privacy and security set by FES.
15. Provide support to the Online Promotion Campaign (which could be managed by another party) through the delivery of visual assets, short ingame videos etc.

D. Expected outcomes

The Contractor is expected to deliver:

- Report of the game design workshop, in which the contractor will take part, along with the P21 Core Team and external game designers;
- Game Design Document developed jointly with the P21 Core Team

Weekly builds of the current version so FES and selected stakeholders can test and give feedback on a frequent basis.

- Three prototypes for each of the micro and mini games defined in the High Concept Note (Annex I).
- Mobile Game Application featuring the three mobile games and the macro game.
- Web application featuring the web ported version of the mobile game
- Audiovisual assets used for the production of the games

- Web application for user and content management including database and database API
- Source code and documentation of each component.
- Test plan and test scripts.
- Technical maintenance and support for 12 months after publishing the game

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Game prototypes:

- Prototype 1: a simulation of both the macro and the micro games that can be developed in a static format, featuring one scenario that will be played by the project stakeholders
- Prototype 2: a more extensive dynamic prototype of both the macro and the micro games that will be played by Project 21 peers
- Prototype 3: an updated version of prototype 2 that incorporates the inputs from the testing of that prototype

Mobile Game Application:

- Fully functional multiplayer game with all the required macro features like user management, voting, weekly topics, asset addition and management.
- Fully functional application featuring the complete set of functionalities of the three micro games.
- Support for Android 6+ and iOS 9+.
- The UI and the visual assets styles should be proposed by the contractor and provided to the community as guidelines for future asset development.
- Available for both multiplayer and single player. The two offline games should be able to work in single player mode without Internet connection. The outcome of offline play should be synced to be database in the background when the player goes back online.
- Available in English and Arabic (with an integrated functionality to add new language(s) in the future).

Audiovisual assets:

- User Interface elements (menus, buttons, dialogues, etc.)
- Isometric or 3D graphics for all the initial buildings and environment elements for the macro game.
- Illustrations and other graphics for the initial game elements of the micro games
- Cinematic: an intro slideshow with up to 20 static comic style illustrations and 1.5-2 min voice over narrative.
- Standard background music and sound effects.
- All the audiovisual elements are expected to be provided in a universal reusable format

Web application:

- Basic User Management System for three roles – end user (for leaderboards, etc.), contributor user (for the extra buildings and topics/challenge management in the macro level; the scenarios, artifact illustrations and glossary for the micro; as well as UI text content and game elements relations) and super user (for user management).
- Basic Content Management System to allow for:
 - Text content management (available in English and Arabic, but with an integrated functionality to add new language(s) in the future).
 - Building, topics, and content management for the macro.
 - Game elements relation management for the macro.
 - Content such as illustrations, artifacts, and glossary for the micro games

Documentation and source code:

- Source code of all the components for both mobile and web applications.
- Detailed documentation of each technical component for both mobile and web applications.
- Basic user manual of the web application to be used by P21 and FES staff.

A more detailed specification on all those components is available in Annex I – High Concept note.

Tests:

- Initial test plan to be provided at the first stage of the project (see deliverables for more information)
- Test results and test scripts to be provided at the final stage of the project.

E. Institutional Arrangement

- The contractor is required to use their company App Store and Google Play accounts to publish the app at both the testing and the production stage.
- The contractor is not required to be physically present at the FES office. The contractor will communicate and report with/to the P21 team on a frequent basis in a trustful and transparent way and communication will take place asynchronously on digital platforms (such as Slack) as well as in weekly meetings (for instance on Zoom).
- The use of agile project management is required to realize this project with the different stakeholders. A mixture of adapted Scrum and Kanban will be needed to keep all stakeholders up to date and react to changes in an agile manner. The contractor is responsible for the management of this agile process and nominates a Scrum Master.
- Handover of all materials and assets that were produced during the project. This includes the source code of the game that must be well commented and structured so upcoming projects can build on this game and adapt it to their needs. This also includes the accounts that were created during the project to upload the game to the stores and measure the impact.

F. Technical and security requirements

All the development process and security requirements are subject to the applicable regulations of the General Data Protection Regulation (GDPR) in EU.¹

G. Duration of the Work

The duration is expected to be 12 months. However, the actual duration is expected to be part of the proposal timeline.

H. Development methodology

Given the specifics of the future product, the contractor is expected to use an agile development methodology. The actual methodology is expected to be part of the proposal.

I. Qualifications of an ideal contractor²

- Minimum 3 years of experience or more in the field of mobile game development.
- Minimum 2 years of experience in developing games of similar size.
- Minimum 2 completed projects of similar size.
- The contractor must be proficient in English and Arabic. (proficiency in French language is an additional asset)
- The number of team members can be determined by the contractor. However, the contractor must provide the resumes of at least one Project manager, Game developer and Game designer. *(For more information, please refer to the next point – Qualification of team members)*

¹ <https://gdpr.eu/>

² Not meeting all of these criteria simultaneously does not deny you from your right to apply, however the candidates meeting most of these requirements will have better chances for a successful selection.

J. Qualifications of Team Members

The Contractor's team must include at least one of each of the following roles with the corresponding qualifications

- Project manager:
 - Must have at least 5 years experience in managing projects in the field of game development.
 - Must have managed at least 2 projects with a size and scope similar to those defined in this ToR and the HCN (Annex I).
 - Must have proven experience of agile development methodologies.
- Game developer:
 - Must have at least 5 years experience in developing mobile games.
 - Must have worked on at least 2 projects of similar size and scope to those defined in this ToR and the HCN.
 - Must have proven knowledge of game development engines like Unity.
 - Must have a solid software engineering background, as well as proven experience of working with agile development methodologies.
- Game designer:
 - Must have at least 5 years experience of creating visual assets for mobile games.
 - Must have worked on at least 2 projects with similar style and genre those defined in these ToR and the HCN.
 - Must have sound knowledge of graphic software such as Adobe Illustrator, Adobe Photoshop, 3D Studio Max, Blender, etc.
 - Must have a solid creative/artistic background.

K. Scope of Bid Price and Scheduled Payments

- The contract price is a fixed output-based price regardless of extension of the duration specified herein.
- The cost components that the Proposer must include in the computation of contract price and should be purely professional fees, overhead fees such as rent and office bills cannot be covered
- An initial payment and payment schedule are to be agreed upon in the signed contract with the successful candidate

L. Recommended Presentation of Proposal

- Company Background
- Portfolio with similar completed projects
- Proposed Team members and their one page resume
- Detailed Timeline
- Proposed development technologies
- Proposed development process and methodology
- Price/Quotation
- Specific functions which are deemed beneficial but are not part of the required app, should be quoted as separate items and are optional