**APPENDIX I**

**Business and Technical Requirements**

**TABLE OF CONTENTS**

[**LIST OF ABBREVIATIONS** ii](#_Toc142386993)

[**1.** **BACKGROUND INFORMATION** 1](#_Toc142386994)

[**2.** **SCOPE OF THE WORK** 3](#_Toc142386995)

[**3.** **ASSUMPTIONS AND RISKS** 3](#_Toc142386996)

[**3.1.** **ASSUMPTIONS UNDERLYING THE PROJECT** 3](#_Toc142386997)

[**3.2.** **RISKS** 3](#_Toc142386998)

[**4.** **LOGISTICS AND TIMING** 4](#_Toc142386999)

[**4.1.** **LOCATION** 4](#_Toc142387000)

[**4.2.** **START DATE AND PERIOD OF IMPLEMENTATION** 4](#_Toc142387001)

[**5.** **WORK STREAMS** 4](#_Toc142387002)

[**5.1.** **ORGANIZATION AND METHODOLOGY** 4](#_Toc142387003)

[**5.2.** **WORK STREAM: SOFTWARE DEVELOPMENT** 5](#_Toc142387004)

[**5.3.** **WORK STREAM: SUPPLY OF SUSTAINABILITY COMPONENTS** 6](#_Toc142387005)

[**6.** **REQUIREMENTS** 7](#_Toc142387006)

[**6.1.** **SOFTWARE REQUIREMENTS** 7](#_Toc142387007)

[**6.2.** **SUSTAINABILITY REQUIREMENTS** 13](#_Toc142387008)

[**6.2.1.** **LICENSES** 13](#_Toc142387009)

[**6.2.2.** **WARRANTY AND MAINTENANCE** 13](#_Toc142387010)

[**6.2.3.** **TRAININGS** 14](#_Toc142387011)

[**7.** **LIST OF DELIVERABLES** 16](#_Toc142387012)

[**8.** **PUBLICITY AND VISIBILITY** 17](#_Toc142387013)

# **LIST OF ABBREVIATIONS**

|  |  |
| --- | --- |
| AI | Artificial Intelligence |
| CoE | Council of Europe |
| ECLI | European Case Law Identifier |
| ECtHR | European Court of Human Rights |
| EU | European Union |
| HTML | Hyper Text Mark-up Language |
| IEEE | Institute of Electrical and Electronical Engineers  |
| IT | Information Technologies |
| KBB | Kararlar Bilgi Bankası (Judgments Database of TCC) |
| SQL | Structured Query Language |
| TCC | Turkish Constitutional Court |
| UYAP | Ulusal Yargı Ağı Bilişim Sistemi (Turkish National Judiciary Network) |

# **BACKGROUND INFORMATION**

The Republic of Türkiye became a party to the European Convention on Human Rights in 1954; it accepted the right of individual application to the European Court of Human Rights (ECtHR) in 1987 and the compulsory jurisdiction in 1990. With the constitutional amendment made in 2004, international conventions on fundamental rights and freedoms to which Türkiye is a party, especially the European Convention on Human Rights, have been given a higher value than the law. The last link of the amendments that refer to "universal criteria" regarding fundamental rights is the opening of the individual application to the Constitutional Court, which has been one of the most important authorities of the Turkish judicial system since its foundation in 1961, with the constitutional amendment made in 2010.

With the implementation of the individual application, constitutional judicial review has been initiated as of September 23, 2012, against the violations of rights caused by individuals and institutions using public power. Accordingly, as of September 23, 2012, anyone can apply to the Constitutional Court with the claim that any of the fundamental rights and freedoms guaranteed in our Constitution, within the scope of the European Convention on Human Rights, has been violated by the public force.

TCC has already implemented a public decisions/judgments database, Kararlar Bilgi Bankası (KBB) that can be accessed via the internet. Leading judgments in the database are Constitutionality Reviews and decisions for Individual Applications. The latter is presented in English user interface as well, where as of today 372 of the 10,455 decisions were already translated in English.

Running on a Linux server and MySQL database management system, KBB was developed in-house by TCC, in PHP language, using Laravel framework. Judgments in html, docx, pdf and udf formats can be accessed through;

* UYAP
* Official Gazette of the Republic of Türkiye web site
* KBB, direct

The Council of Europe (CoE) is currently implementing a project since September 2021 on “Supporting the Effective Implementation of Turkish Constitutional Court Judgments in the Field of Fundamental Rights”, whose main objective of the Project is to contributing to the effective implementation of European standards in the field of human rights, including gender equality.

Partners and beneficiaries of the Project are; The Turkish Constitutional Court (TCC), The Human Rights and Equality Institution of Türkiye, The Ombudsman Institution of Türkiye, The Civil Society Organisations, The Grand National Assembly of Türkiye, all courts of the Turkish justice system, The Union of Turkish Bar Associations, Bar Associations, The Justice Academy, The Council of Judges and Prosecutors, ministries, law enforcement bodies, judges and legal advisors of the Turkish Constitutional Court, judges and legal clerks of courts of general jurisdiction, lawyers and the general public.

The Project is co-funded by the European Union and the Council of Europe, and the expected results are as follows:

1. The monitoring mechanism for execution of judgments of the TCC is strengthened in line with the EU best practices, and the stakeholder platform has improved monitoring;
2. Judges, prosecutors, relevant public officers and lawyers are aware of the case law of the ECtHR and the TCC, and are able to implement those judgments in similar cases;
3. Inadequate implementation of the TCC judgments and serious human rights lacunas detected via the TCC’s case-law are effectively addressed;
4. The transfer of EU expertise and cooperation between Turkish courts and relevant stakeholders with the European and Member States institutions/courts, and the ECtHR are enhanced;
5. Awareness of the general public and public institutions on the role of the TCC in the protection of fundamental rights through its judgments is increased.

These expected results are to be achieved through the several key activities, where Key Activity 2 is “Development of a monitoring mechanism model including strengthening of a specific monitoring unit in the TCC, as well as the establishment of an IT platform in coordination with the Court of Cassation and the Council of State, the Courts of Appeals and other relevant stakeholders (including the Civil Society Organisations) to improve the monitoring of execution of the TCC judgments, including the data collection mechanism regarding references made to the TCC judgments by ordinary courts.”

Considering the existing IT system applied by TCC, and the good practices in Europe and Türkiye, a technical needs analysis was conducted in the scope of the Key Activity 2, in order to provide recommendations for the establishment of a new Case Law Database, which is a critical action towards achieving Expected Result 1. As the result of the analysis study, it is decided that the Case Law Database, to be installed on the TCC servers at UYAP premises, will be developed by an external professional body under the supervision of the TCC, and with active involvement of the TCC project team in all the stages of the development project.

This Terms of Reference document presents those findings and recommendations as the basis of the subject contract.

# **SCOPE OF THE WORK**

The Provider shall achieve the following results:

**Result-1:** A case law database and related software modules are developed and installed.

**Result-2:** Sustainability components are supplied.

The following sections describe the terms of reference for the contract.

# **ASSUMPTIONS AND RISKS**

# **ASSUMPTIONS UNDERLYING THE PROJECT**

The Turkish Constitutional Court (the ‘Beneficiary’);

* Has got a great experience, gathered over years, on evaluation and publication of case laws.
* Has already established an organisation and appointed human resources for this purpose.
* Has already been operating a database of approximately ten thousand TCC decisions on individual applications, open to the public access.
* Has already employed competent and enough number of technical experts to manage existing IT infrastructure.
* Has already employed competent and enough number of technical experts to develop and maintain Java based software with relational databases.
* Will actively involve software development activities of this Project.
* Will provide meeting/working rooms, permissions and infrastructure for three Provider team members during the Project implementation.
* Will provide Provider team members with lunch and beverages in TCC at their own expense, and free transportation with the TCC service coaches.

The Council of Europe;

* Will provide Quality Assurance assessments for the contract deliveries, which are described in Article 7 of this document.

# **RISKS**

As of today the following risks are identified;

* Insufficient allocation of appropriate level of human and financial resources required for the successful implementation of the project and its outputs.
* Insufficient involvement, cooperation and participation of all the stakeholders.
* Lack of intra and inter-organisation coordination and communication.

The Provider shall prepare a Risk Management Plan as a part of the Project Management Plan defined in Article 5.1 of this document, in order to mitigate those risks, and to identify and manage further risks during the implementation period.

# **LOGISTICS AND TIMING**

# **LOCATION**

The base of operation for the Project is Ankara/Türkiye. The Provider may use its own premises for backstopping purposes and during software design and coding activities, provided that associated Beneficiary project experts can actively attend and contribute.

# **START DATE AND PERIOD OF IMPLEMENTATION**

Project will start as of the contract signature date (T0), and period of implementation will be twelve months from this date, including design, coding, testing and pilot testing phases. Due dates of the individual deliveries are given in Article 7 of this document.

# **WORK STREAMS**

# **ORGANIZATION AND METHODOLOGY**

The Provider shall prepare a Project Management Plan explaining its methodology, organisation, timeline, procedures, standards and other measures to achieve the results of the project, and submit to the CoE after the contract signature. Recommended software development project organisation is presented in the following diagram:

Project Sponsor

(TCC)

Project Management

TCC

Analysis Team

Design & Development Team

TCC

Test Team

In order to ensure sustainability, participation of TCC experts to the project team is essential. Therefore, Beneficiary shall assign no less than a deputy project manager, a field expert and a programmer, as well as a test team of two experts, of which one of them is the field expert assigned to the analysis team. Besides contributing to the process and ensuring sustainability, this is a good on-the-job training opportunity for the TCC experts, regarding contemporary development tools and techniques.

# **WORK STREAM: SOFTWARE DEVELOPMENT**

The Provider shall design and develop a Case Law Database and related software with coordination and actively involvement of the Beneficiary, as specified in Article 6.1 of this document, install the software on the existing TCC server at UYAP and deliver both executable codes and recompilable source codes to the Beneficiary.

Software development phases, and corresponding document deliveries, in addition to the executable and source code of the actual software, are depicted in the following diagram;



Deliveries are subject to the approval of TCC and quality assessment of the CoE in order to finalise a phase and start the next one or to perform acceptance. Even in case of a decision to apply an agile development method, such as Scrum, iterative approval of requirements, design decisions is recommended. Software Testing Phase includes pilot testing period, where supervision and support from the Provider is required.

1. Software Development Plan: Project organisation, timeline, team members, communication procedures, deliveries, technologies to be employed, international standards to be respected.
2. Software Requirements Specification: Detailed list of requirements, collected by means of interviews and document overview, and agreed validation/verification method for each requirement.
3. Software Design Description: Definition of all software components and software units (screens, reports, database tables, interfaces), meeting the above-mentioned requirements, including a bi‑directional traceability matrix between requirements and software units.
4. Software Test Procedures: Test steps and sample data to validate/verify each software requirement, including a bi‑directional traceability matrix between requirements and test steps. (This document contains pilot test procedures, as well.)
5. Software Test Report: Results of all tests, successful or failed.

# **WORK STREAM: SUPPLY OF SUSTAINABILITY COMPONENTS**

By taking the development, runtime and maintenance stages of the Case Law Database into account, The Provider shall deliver the following components in order to achieve a sustainable system, conforming the requirements given in Article 6.2;

* Automated test system;

Software testing is the most crucial task regarding both development and maintenance phases. TCC shall assign and maintain a competent test team for this task to be carried out, later in-house. Test team shall be equipped by the Provider with sufficient number of licenses and appropriate know-how for this purpose.

* Development and maintenance tools;

In order to ensure the Case Law Database sustainability, sufficient number of licenses for the selected software development tools, as well as for the system monitoring tools are to be obtained by the Provider.

* Associated training packages;
	+ Automated Software Testing (based on the test tool to be employed by the Provider)
	+ Secure Software Development (based on the development and monitoring tools to be employed by the Provider)
	+ Network and Information Security
	+ Database Management
	+ Configuration Management

# **REQUIREMENTS**

# **SOFTWARE REQUIREMENTS**

6.1.1 The Provider shall perform a Software Requirements Analysis to be coordinated by the Beneficiary Deputy Project Manager and determine required components and modules of a Case Law Database and related software. The Case Law Database shall include at least the following main functionalities;

* Judgment/Review Publication: identification as case law, keyword extraction association to other legal documents/law articles,
* Judgment/Review Inquiry: With different criteria, including text and keyword,
* Judgment/Review Print/Download,
* Subscription: different user profiles and preferences,
* Notification: “deferred information request”, where users submit their requests and are notified later, when a related judgment/Review is published and available.

Therefore, Case Law Database shall;

6.1.2 Allow selection of judgments among TCC’s decisions on individual applications and constitutional reviews. For this purpose;

* Main page of the Case Law Database should open with a simple interface, probably a single text search field, which allows searching with multiple phrases and keywords,
* Besides simple search, Case Law Database home page should contain an advanced search option, current judgments sort by date,
* Besides the full-text search, a keyword/concept search mechanism should be available,
* Case Law Database should allow users to search by phrases and sentence phrases,
* The user interface should provide combo-boxes with predefined options and sub-options such as:
	+ Right to a fair trial:

1- Access to relevant files

2- Free legal assistance

3- Same conditions

4- … etc.

* The TCC has two main duties; first, examine constitutional review of laws and decrees, second decide on individual applications. In many decisions and judgments these two roles of the TCC are closely related. Case Law Database should allow searching in both judicial review decisions and individual application judgments.

6.1.3 Determine the importance/significance of a judgment in line with its precedential nature,

6.1.4 Identify keywords,

6.1.5 Build a notification system to inform requesting users about the requested judgment,

6.1.6 Ensure ease of access to judgments according to types and time frames of the infringement/violation of the rights,

6.1.7 Identify relevant articles of laws (if there are any references to international conventions or any related usage, identify these as well),

6.1.8 Create a case identifier whose numbers will be given by the Beneficiary, such as the European Case Law Identifier (ECLI).

6.1.9 Identify and develop classification criteria.

6.1.10 Delete or modify personal data and set up an infrastructure of legislation on this matter, if requested.

6.1.11 Create folders of precedents in accordance with their expertise for judges and provide them with sample judgments, up-to-date information notes, summaries of judgments, notes on the details of cases and summaries.

6.1.12 Produce bulletins of monthly judgment summaries, through an appropriate user interface for the authorized people, who will make data entry.

6.1.13 Provide rapporteur judges with an appropriate user interface for adding content to the Case Law Database by writing abstracts of the selected judgments.

6.1.14 Provide interfaces for the authorized users of the companies processing case law, offering an option for retrieving documents in batches.

6.1.15 Include both manual and automatic anonymization, concept/keyword extraction and correlation tools that will enable more efficient searches. During anonymization, person and organization names can be replaced with pseudo names.

6.1.16 Allow the following single or combined search criteria to be applied during inquiries on the decisions;

* Free Text (word groups, included/not included, complex search with AND/OR/NOT) over the different sections of a document (Procedure, Complaints, Separate Opinions, etc.), using a thesaurus to extend the range of the search
* Originating body (First Section, Second Section, Plenary Assembly)
* Significance level (most recent, first-in-the-row, relevant, convenient decisions will take higher scores)
* Date Interval
* Decision type (reversal, approval, etc.)
* Keywords
* Law Articles
* Decision date (before, after, between)
* Document Type (predefined types)
* Case Title
* Conclusion
* Decision Number
* Separate Opinion(s) (yes/no)
* Referenced Strasbourg/Domestic Law/International Law Articles
* Referenced Procedural Rules of the Court
* ECLI or similar Case Number

6.1.17 List the case laws queried and allow the result list to be printed or sorted, in increasing or decreasing order, on different columns.

6.1.18 Allow users to click on any document on the list to select, display, download and print the document, accompanying/explanatory documents and press release, if available, as well as guide users to access related TCC and ECtHR documents.

6.1.19 Regarding the results, allow the following;

* Judgments and related Constitution Article shall be matched.
* Judgments can be classified by related Constitution article.
* The judgments should be marked to prevent users from looking the same judgments again.
* Empowerment of related law links may help them connecting law terminology and human rights concept.
* TCC’s judgments refer to each other by paragraph numbers. When users click on the reference, that paragraph opens simultaneously to follow judgments.
* When results are shown on the screen, users can click on the decision tag to see a short summary of the judgment.

6.1.20 Provide a subscription mechanism, which allows the Case Law Database to serve users in different profiles by granting different data access privileges, retrieve opinions, complaints, satisfaction level, demands, preferences, search tendency of the users, personalize the services, guess document needs based on the previous inquiries, and send notifications to meet deferred content requests.

6.1.21 Allow rapporteur judges, data entrance operators and authorised users of TCC to access original documents and additional information, whereas the other users, including lawyers, academics and citizens, can view only the anonymized version of the decisions.

6.1.22 Allow authorised users to record thematic notes.

6.1.23 As well as the User Manuals and on-screen immediate help (tip) options for guidance, provide links to the books published by TCC, eight right-based handbooks at SIAC project, two judgment summaries books, guides etc.

6.1.24 Support both personal computers (through internet browsers) and mobile devices (through mobile application) over the internet in Turkish user interface. Features to be included in the mobile application, which should run natively on minimum Android 7.1 and iOS 13 operating systems, will be determined during the design phase.

In addition;

6.1.25 Beneficiary’s technical experts shall involve actively in the whole development process in order to ensure sustainability. The Provider shall provide necessary development environment and tools at its own and/or Beneficiary’s premises, based on the selected teamwork methodology. If Provider’s premises are out of Ankara, all costs related to the visits of the Beneficiary team (transportation, accommodation and per-diem) shall be paid by the Provider.

6.1.26 Capacity of the Beneficiary in Contemporary Software Development Technologies is to be enhanced through the trainings specified in Article 6.2.3 of this document.

6.1.27 End-user trainings shall be supplied for TCC trainers, where training material and User Manuals are to be provided in digital means.

6.1.28 At the end of the analysis study, the Provider shall prepare a Software Requirements Specification document, in English or Turkish, in the course of IEEE 12207 requirements, and submit to the Beneficiary for joint review. The document shall be revised by the Provider according to the comments and inputs given during the review, and subject to the approval of the Beneficiary. If in English, final version of the document shall be translated to Turkish.

6.1.29 During the Design and Implementation phase, the Provider shall prepare a Software Design Description document, in English or Turkish, in the course of IEEE 12207 requirements, and submit to the Beneficiary for joint review. Initial version of the document shall contain the architectural/preliminary design of the software to be jointly reviewed before commencing the programming activities. The second version of the document shall contain the finalised detailed design of the software, and be jointly reviewed before the installation of the software. The document shall be revised by the Provider according to the comments and inputs given during the final review, and subject to the approval of the Beneficiary. If in English, final version of the document shall be translated to Turkish.

6.1.30 During the Design and Implementation phase, in collaboration with the Beneficiary Test Team, Provider shall prepare Software Test Procedures document, in the course of IEEE 12207 requirements, which will be the basis of the acceptance of the developed software, and utilise those procedures during its internal tests as well.

6.1.31 By taking the advantage of the size and the know-how of the Java community in Türkiye, it is recommended to utilise Java technologies for Case Law Database software development. In addition, JavaScript/HTML based frameworks, such as React/Angular for front-end and Node.js for server-side components are also promising. However, Provider may implement AI components in Python language.

6.1.32 The Provider shall utilise PostgreSQL free and open source relational database. However, as the need emerges for storing and accessing contents in different formats, such as multi-media files, the Provider is recommended to utilise NoSQL databases, such as MongoDB for the document repository and content management features of the case law database.

6.1.33 Software Testing Phase will include pilot testing, which is to be performed in-house by the Beneficiary experts under the supervision and support from the Provider, based on the agreed test procedures, and by utilising an automated test tool, which is supplied by the Provider and capable of storing, executing and monitoring test scenarios. The Provider shall correct the errors and revise the documents, if necessary, after each failing test.

6.1.34 Test system shall be independent from the live system. Beneficiary shall provide Provider team with the necessary authorisation for accessing the test system.

6.1.35 The Provider shall submit the report of successful security and penetration tests performed by a third-party body, before the acceptance, and solve all problems found by Beneficiary security and penetration tests, if any.

6.1.36 Data migration will be discussed during the project implementation, and be performed before the pilot testing. However, Provider shall be aware of the probable need for an additional effort for a successful migration based on its new database design.

6.1.37 After installation of the software, before commencing the pilot tests, the Provider shall deliver executable codes and recompilable source codes to the Beneficiary, in electronic format. After pilot testing, revised version of the codes shall also be delivered.

6.1.38 Regarding the software developed in the scope of this section, the Provider shall provide regular software patches and bug fixes, as well as remote or on-site consulting/support during the warranty period, defined in Article 6.2.2.1 of this document.

6.1.39 As a distinctive feature of the Case Law Database, implementation of AI technologies and algorithms, including Named Entity Recognition with Deep Learning, with manual retraining option is required for the following functionalities of the Case Law Database;

* Concept extraction and categorization

Based on the initial “training” of the selected AI algorithm by means of published decisions, candidate contents are categorised automatically and concepts/keywords are identified. Rapporteur judges’ responsibility in this process is to determine candidate documents to be sent to the database, and review and approve AI based classification. Eventually AI may take over these responsibilities as well.

* Links to the law articles and other related documents

AI algorithms will be trained to identify law articles in the subject documents and to establish links to the related documents. This can be performed during both the classification and query optimisation stages.

* Extraction and anonymization of private/personal data

Classified and approved documents are further processed to identify and replace or remove private/personal data. In this scope, person and company/organisation names are in the first line. Those names are replaced by random pseudo names from a pre-defined list.

* Query building and optimisation

AI algorithms will be employed in assisting users for query building, and thus speeding up the access to the documents of interest. Previous searches, areas of interest, trend topics, and connection between documents are some of the inputs for query optimisation.

* Feedbacks and smart statistics

Users generally hesitate submitting feedbacks, complaints, satisfaction or comments during online transactions/inquiries. These can easily be recognized by AI algorithms after a proper deep learning process. Inquiry success or failure rates and reasons, personal preferences, common blunders, trend topics, case law access frequencies, connection between documents are just a few examples of input that can be used as a basis for such a behaviour analysis. Together with the explicit user comments, the results of that evaluation can assist Sustainability Committee of the Beneficiary in the course of optimising the Case Law Database.

* Quality control for data and process

AI algorithms can regularly check data consistency and process performance, and prepare automatic reports for the Management, IT Managers, and Sustainability Committee of the Beneficiary.

* Continuous adaptation of the Machine Learning algorithms with batch inference

Case Law Database software shall allow authorised users to initiate retraining of the AI algorithms with the most current set of judgments and usage statistics gathered by abovementioned functionalities.

Deep learning algorithms can be employed on already published decisions in KBB. In addition, senior judges’ support is very valuable.

In principle, Case Law Database is expected to deliver uttermost use of AI -content, not only as a data mining instrument, in all possible components. The following diagram summarises the recommended utilisation of AI;

 **Publication AI Assistance User Sustainability**

 **Committee**

Determine as Case Law

Extract Concepts

Review Documents

Quality Control & Optimisation

Evaluate User Behaviour

Give Feedback

Optimise Query

Search

Approve and Release

Anonymise

Link to Related Documents

# **SUSTAINABILITY REQUIREMENTS**

In accordance with the main objective of the Project, the ultimate goal of this tender is not only to outsource the development of a Case Law Database, but to enable Beneficiary as well, to take over the maintenance responsibility and implement further improvements on the system, through;

* Appropriate number of licenses for all proprietary software, development and test tools and algorithms, in order the Beneficiary to be able to execute, redesign, recompile, maintain, modify, manage and test the Case Law Database and software to be developed by the Provider.
* Warranty and maintenance packages of the vendors, including Provider itself, for all the software components, in order to provide continuous service and integrity of the Case Law Database.
* Trainings, in order to improve the capacity of the Beneficiary on the tools and techniques employed during the development of the Case Law Database and related software.

# **LICENSES**

6.2.1.1 In order the Beneficiary to be able to execute, redesign, recompile, maintain, modify, manage and test the Case Law Database and software to be developed by the Provider, during the delivery of the source codes, Provider shall provide Beneficiary with the licenses of the same software development tools, including the frameworks, libraries, full-text search mechanism and AI/deep learning algorithms, for a Beneficiary team of 2 (two) developers, and 1 (one) license for the automated testing and configuration control tools.

6.2.1.2 Regarding the software items in the scope of this section, the Provider shall provide regular software patches and bug fixes, as well as vendor or third party support packages during the warranty period, defined in Article 6.2.2.1 of this document.

6.1.1.3 All licenses shall be issued in the Beneficiary’s name.

# **WARRANTY AND MAINTENANCE**

6.2.2.1 Warranty period for the software components is 2 years from the date of acceptance. Tenderer must provide a detailed description of the organisation of the proposed service.

6.2.2.2 If any component of the system which is necessary for running of the whole system turns out to be defective during the warranty period, the Provider is obliged to troubleshoot the problem, not later than 24 (twenty four) hours following the receipt of the notification sent by the Beneficiary to the Provider about the failure of the software, at its own expense.

6.2.2.3 If any component of the system turns out to be defective, but not in the scope of Article 6.2.3.2 during the warranty period, the Provider shall respond and intervene the problem within 24 (twenty four) hours after the Provider takes the receipt of the notification sent by the Beneficiary, and fully repair and re-integrate within maximum 5 (five) days at its own expense.

6.2.2.4 The Provider shall provide the Beneficiary with the e-mail addresses, telephone numbers and/or online service links of the contact persons, which are active 7 x 24 basis for notification about the failures and reclamations within 20 days after the commencement of the contract.

# **TRAININGS**

6.2.3.1 Provider shall provide the following trainings in order the Beneficiary to conduct further improvement and maintenance activities;

| No | Content of the Training |  No. of Trainees | Estimated Duration |
| --- | --- | --- | --- |
| 1 | Software Installation, Configuration and Management(On-the-job Training during the installation of the proposed hardware components) | 1-3 | - |
| 2 | Network and Information Security | 1-3 | 12 hours |
| 3 | Database Management with PostgreSQL  | 1-3 | 18 hours |
| 4 | Named Entity Recognition with Deep Learning(On the job training for the development team members assigned by the Beneficiary, with the selected AI algorithms and libraries for the Case Law Database) | 1-3 | - |
| 5 | Selected Programming Language in Artificial Intelligence Applications (With the selected development suit and libraries for the Case Law Database and software development) | 1-3 | 18 hours |
| 6 | Agile Software Development | 1-3 | 12 hours |
| 7 | Software Development Tools(On the job training for the development team members assigned by the Beneficiary, with the selected tool, front-/back-end frameworks and libraries for the Case Law Database software development) | 1-3 | - |
| 8 | Scenario Based Automated Software Testing(On the job training for the test team members assigned by the Beneficiary, with the selected test suit and techniques for the Case Law Database and software development) | 1-3 | - |
| 9 | Configuration Management Basics(On the job training for the development team members assigned by the Beneficiary, with the selected configuration management tool) | 1-3 | - |
| 10 | Content Management with MongoDB | 1-3 | 18 hours |
| 11 | End User Training (Train-the-trainers) | 10 | 30 hours  |

6.2.3.2 Before the commencement of any training, Provider shall prepare a Training Plan, in English or Turkish, including the schedule, to be reviewed and approved by the Beneficiary. Training Plan will be implemented after the approval.

6.2.3.3 Training Plan shall include the name, CV and proof of competence for each instructor.

6.2.3.4 Provider shall determine the curriculum, actual number of trainees and actual duration of the trainings in coordination with the Beneficiary. Curriculum shall cover all functionalities for different user profiles, such as rapporteur judges, authorised users, lawyers, academics and citizens.

6.2.3.5 In principle, class-trainings will be performed on maximum six hours per day basis, at the premises of the Beneficiary, where the Beneficiary shall provide appropriate training rooms. On-the-job trainings, remote or face to face, will be as a part of the implementation.

6.2.3.6 End-user trainings shall be in Train-the-Trainer basis. Beneficiary shall provide room and facilities for the training of 10 (ten) TCC trainers at its premises.

6.2.3.7 If any training will be performed out of Ankara, all costs related to trainings (transportation costs of the trainer and/or participants, participation fees (if applicable), fees of the vendor trainers and/or accommodation of participants and/or instructors (if applicable) shall be paid by the Provider.

6.2.3.8 In any case, all training materials shall be provided by the Provider as hard and soft copy, and handed out for every trainee. The language of the training documents shall be in Turkish or English; if not, interpretation/translation shall be provided and paid by the Provider. End user trainings and associated material shall be in Turkish.

6.2.3.9 At the end of each training, Provider shall issue a certificate of participation for each attendant.

6.2.3.10 At the end of each training, Provider shall distribute a questionnaire to the attendants, about the success of the training, and submit the results to the Beneficiary.

# **LIST OF DELIVERABLES**

Below table lists the project deliveries, which are subject to the quality assessment of the CoE, approval requirements and due dates, where T0 is the contract signature date;

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Phase** | **No** | **Deliverable** | **Due Date** | **Review & Approval** |
| 1 | 1 | Project Management Plan | T0 + 2 weeks | 1 week |
| 2 | 2 | Software Requirements Specification | T0 + 10 weeks | 2 weeks |
| 3 | 3 | Software Design Description (initial version) | T0 + 3 months | 2 weeks |
| Software Design Description (final version) | T0 + 8 months | 2 weeks |
| 4 | Installed Software including Source and Executable Codes and Development Tools | T0 + 9 months | 2 weeks |
| 5 | Training Plan | T0 + 2 months | 1 week |
| 9 | Software Test Procedures | T0 + 8 months | 2 weeks |
| 4 | 6 | Training Material | According to the training plan |
| 7 | Trainings | According to the training plan |
| 8 | User Manuals | Before the end user trainings |
| 10 | Penetration Test Report | T0 + 12 months |
| 11 | Revised Source/Executable Codes, retrained AI algorithms and Documents | T0 + 12 months | 2 weeks |
| All | 12 | Monthly Progress Report | 5th working day of the next month | - |
| 13 | Meeting Minutes | 1 week after each meeting |

# **PUBLICITY AND VISIBILITY**

The Provider shall not use the Council’s name, flag or logo without prior authorisation of the Council.

The CoE will provide Provider with the guidelines concerning additional publicity and visibility requirements of the Project, after the contract signature.

The Tenderer shall be aware that neither those requirements nor the guidance will bring additional costs to the Provider.