ANNEX A.1 – TECHNICAL SPECIFICATIONS

OPEN CALL FOR TENDERS

F-SE-19-T01

Provision of Web Services for the

European Union Agency for Fundamental

Rights (FRA)

1   Contents

1   Background information

The European Union Agency for Fundamental Rights (FRA), hereinafter referred to as "the Contracting Authority", intends to sign a maximum of 5 mixed multiple framework contracts in cascade and with re-opening of competition for the provision of web services as described in the present document.

The FRA is based in Vienna, Austria. More information about the Agency can be found on its website http://fra.europa.eu.

2   Scope of required services

The web services are intended to cover software services, including analysis, design, development and testing.

This covers software development and maintenance of both intranet and internet facing applications such as the Contracting Authority's website and its intranet applications.

It will be up to the Contracting Authority to decide where the actual work will be carried out - either at the Contracting Authority's premises or at the contractor's premises, depending on the type of specific contract to be issued during the implementation of the framework contract (see section 6 below).

3   Definition of Lots

The provision of the required services is organized in two Lots:

Lot 1 – Intranet Web Services: This lot covers software development and maintenance related to FRA's intranet applications.

Lot 2 – Internet Web Services: This lot covers software development and maintenance of internet facing applications like the Contracting Authority's website and other web applications available to the public / stakeholders.

4   Description of services

4.1 Lot 1 – Intranet Web services

Under Lot 1 the contractor will be requested to provide **services** related to the Contracting Authority's intranet and extranet applications (existing or development of new ones), namely:

- Development and corrective (e.g. bug fixes), adaptive (e.g. upgrades of a technology in use) and evolutive (changes to accommodate business needs) maintenance of existing intranet, as well as preventive maintenance i.e. changes which aim to improve the long term maintainability of the application and reduce technical debt (e.g. refactoring, increase in test coverage, etc.);

- Development and maintenance of new intranet applications;

- Data analysis, modeling, architecting and migration;

- Web application integration solutions;

The following **activities** might be involved in providing the above services:

- Project management;

- Analysis, Design and Architect;

- Development and implementation;

- Testing (all phases), acceptance and deployment;

- Development and consulting on the applications' presentation layout;

- Consulting on the application's information architecture;

- Performance measuring and improvement;

- User interface definition and development;

- Feasibility studies and technical & usability assessments;

- Hand-over and take-over of applications;

- Technical documentation as well as user training.

- Maintenance and technical upgrades

The **products, technologies and tools** to be covered under Lot 1 are the following:

- User interface design standards : HTML, HTML5, XML, XSL, JavaScript, JQuery, CSS

- SQL, MS-SQL

- Windows Server 2012 or later

- SharePoint 2016 or later, including Project Server

- NINTEX forms and workflows

- Development languages : Microsoft.NET, ASP.NET, C#;

- Business Intelligence & reporting tools: Microsoft Reporting Services, Microsoft PowerPivot and PowerQuery and Microsoft PowerBI.

- Cloud services: MS Azure, O365 including Sharepoint and Project online

The above is meant to be a non-exhaustive list of services, activities, products, technologies and tools planned to be covered under Lot 1.

The Contracting Authority is expected to adopt Microsoft cloud services and in particular Office 365 incl. SharePoint online, Project server Online and MS Azure. This transition will take place during the implementation of the envisaged framework contract. Therefore the contractor should have expertise in these technologies as it willl be requested to install and maintain the applictaions on the staging and production environments

The minimum version to be supported by the different products, tools and technologies is indicated above. The contractor is expected to mimic the configuration and features enabled in the technologies used. It is expected that the contractor will keep abreast of progress related to the underlying software so as to support newer versions as they become available. This will be required since the contractor will be expected to also cover upgrades of applications to newer versions.

The contractor shall act as necessary to ensure successful handover of the applications to the next contractor at the end of the framework contract, so as to safeguard optimal operation and continuity. On conclusion of the contract, the contractor will be required to provide the Contracting Authority with all the data contained on the Contracting Authority's applications together with any necessary tools, source code and other material connected with establishing, operating and further developing the applications. The contractor will have to ensure that the handover of any of the above is made efficiently and effectively.

The services under Lot 1 may be acquired either through Quoted Times and Means, Times and Means or Fixed Price specific contract or order forms, as described below.

The contractor must provide the required development environment infrastructure whereas the staging and production environments will be provided by the Contracting Authority.

The contractor may be requested to provide the services at either its own premises or at the Contracting Authority's premises.

4.2 Lot 2 – Internet Web services

Under Lot 2, the contractor will be requested to provide **services** related to the Contracting Authority's internet based applications (existing or development of new ones), namely:

- Development, corrective and evolutive maintenance of existing web and internet applications, mobile apps, e-recruitment system, e-learning systems, other online tools, etc;

- Development of new web and internet applications, mobile apps, e-learning systems, other online tools, etc, also including corrective and evolutive maintenance for these applications;

- Data analysis, modelling and migration;

- Database design and development for web and internet applications;

- Web application integration solutions;

- Usability and accessibility testing of existing and new web and internet applications, mobile apps, e-recruitment system, e-learning systems, other online tools, etc;

The following **activities** might be involved in providing the above services:

- Project management;

- Analysis and design;

- Development and programming;

- Testing and deployment of internet applications and mobile apps;

- Development and consulting on the applications' presentation layout;

- Consulting on the applications' information architecture;

- User interface definition and development;

- Feasibility studies and technical, usability and accessibility assessments;

- Hand-over and take-over of applications;

- Performance measuring and improvement;

- Technical Documentation, training of users and user manuals.

The **products, technologies and tools** to be covered under Lot 2 are the following:

- **Software**: Linux operating system, Drupal, LimeSurvey, Matomo (formerly Piwik), Apache web server, Tomcat, Oracle (BEA) Weblogic, SPSS, Moodle

- **Markup and related languages and frameworks**: HTML, HTML5, XML, XSL, XSLT, CSS, Bootstrap

- **Programming languages** : PHP, Javascript, Java, Objective-C, R,

- **Database technologies**: MySQL (MariaDB), Oracle database,

The above is meant to be a non-exhaustive list of services, activities, products, technologies and tools planned to be covered under Lot 2.

The minimum version to be supported by the different products, tools and technologies is indicated. It is expected that the contractor will keep abreast of progress related to the underlying software so as to support newer versions as they become available. This will be required since the contractor will be expected to also cover upgrades of applications to newer versions.

The contractor shall act as necessary to ensure successful handover of the whole website and other applications to the next contractor at the end of the framework contract, so as to safeguard optimal operation and continuity. On conclusion of the contract, the contractor will be required to provide the Contracting Authority with all the data contained on the Contracting Authority's website together with any necessary tools, source code and other material connected with establishing, operating and further developing the website and other applications. The contractor will have to ensure that the handover of any of the above is made efficiently and effectively.

The services under Lot 2 may be acquired either through Quoted Times and Means, Times

and Means or Fixed Price specific contracts or order forms, as described below.

The activities are normally performed at the contractor's premises. However, specific technical tasks, interventions or analysis can take place at the Contracting Authority's premises.

The contractor must provide the required development environment infrastructure, whereas the staging and production environments will be provided by the Contracting Authority.

5 Technical Infrastructure requirements

The following sections describe the existing technical infrastructure of the Contracting Authority. It is not exhaustive and is constantly evolving. The contractor should ensure that any developments take into consideration these requirements. Any changes to this infrastructure will be notified to the contractor where there might be an implication for an on-going specific contract or order form.

Testing environment

Builds should be deployed to the testing environment prior to any production environment deployments. For Lot 1 the testing environment is hosted at the Agency's infrastructure (NOTE: throughout the contarct implementation it isenvisaged to move to a cloud based infrastructure.) This environment is meant to be used by FRA staff to provide feedback to the contractor while new features and bug fixes are under development. The testing environment should be an exact replica of the production environment in terms of specifications and application deployments. Redundancy is not necessary. Access to the testing environment should be strictly limited to FRA and the contractor via IP whitelisting.

Information Systems Infrastructure - Lot 1

Databases: MS SQL,

Content and Document Management Systems: Microsoft SharePoint2016 and later versions.

Configuration and change management tools: MS Visual Studio Team foundation

Programing languages and frameworks: ASP, NET, XML, XSL, XST, PHP, SQL, PL/SQL, Javascript, R, SPSS

Virtualisation: Virtual Machines using Microsoft Hyper-V

Web and application servers: Apache, MS IIS

Collaboration and portal technologies: Microsoft SharePoint 2016, Microsoft Project Server 2016, NINTEX forms and workflows.

Business Intelligence & Reporting: Microsoft Reporting Services, Microsoft PowerPivot and PowerQuery and Microsoft PowerBI

Office tools: Microsoft Office 2016, Adobe Creative Cloud,

Operating systems: Windows 10, Windows Server 2012 latest

Back office tools: MS System Center Manager (SCCM), MS Data Protection Manager (DPM)

Security provisions for Lot 1: The Contractor must provide the requested services in accordance with the Agency IT security policies and practices as well adherence with the personal data provisions included in the draft framework contract. These may also include but not limited to the provision of end user access rights based on profiles, utilization and integration of the latest security patches linked to the technologies under Lot 1.

Information Systems Infrastructure – Lot 2

Databases: MySQL (MariaDB), Oracle Database

Content Management and E-learning Systems: Website – Drupal; E-recruitment - custom system; Moodle;

Markup / Programming languages and frameworks: HTML, HTML5, XML, XSL, XSLT, CSS, Bootstrap, PHP, Javascript, Java, Objective-C, R, SPSS

Virtualisation: Virtual machines using VMWare

Web and application servers: Apache, Oracle (BEA) Weblogic, Tomcat

Survey tools: Limesurvey

Statistics tools: Matomo (formerly Piwik)

Operating systems: Linux (CentOS, Debian)

The infrastructure for Lot 2 (internet) is hosted at the data centre of the Contracting Authority's web hosting provider. It should be noted that this may change in the duration of this Framework Contract; however the location will always be in an EU Member State.

The work for Lot 2 shall take place at the premises of the Contractor or the Contracting Authority. As remote access will be provided to the infrastructure hosted at the premises of the Contracting Authority's web hosting provider, it is not expected that the Contractor shall maintain staff there.

Security provisions for Lot 2: The Contractor may be requested by the Contracting Authority to apply security updates and patches to the web applications hosted on the Authority's web hosting infrastructure. The security of the infrastructure itself is the responsibility of the Contracting Authority's web hosting contractor.

6 Contract execution

The services shall be provided on the basis of different types of request for services:

- Fixed price requests for services, which correspond to the order of a defined work and deliverables. In a fixed price request, the contracting authority specified the deliverables corresponding to the work to be carried out by the contractor and the expected timing.These assignments will be executed, in general, at the contractor's premises

- Quoted Time & Means requests for services, which correspond to the order of person

days for defined subtasks. These orders may vary from a few man-days to a substantial number of man-days. The request for services under Quoted Time & Means specific contracts or order forms will be executed at the contractor's premises.

- Times & Means requests for services, which correspond to the order of a number of days for defined profiles. These orders normally will be a few man-days. The orders under Time & Means specific contracts will be executed at the Contracting Authorities' premises.

6.1 Ordering process using the cascade mechanism

For specific contracts up to EUR 60,000.00, the ordering process will be initiated by the Contracting Authority sending a request for services to the first framework contractor in cascade to provide an offer based on the technical specifications provided. On receipt, the Contractor must, within the time period given, either make a proposal to the Contracting Authority for the execution of the request or decline the request.

Should the contractor respond to the service request by submitting an offer, the contracting authority will evaluate it and, if necessary, request clarifications by phone, email or video-conference. If required, the Contracting Authority will discuss the offer with the contractor until an agreement for the undertaking of the tasks is reached. Upon agreement, a specific contract or an order form will be sent to the contractor for signature provided their financial offer is below the threshold of EUR 60,000.00 (please refer to the relevant provisions in the framework contract).

Should the first framework contractor in cascade be unavailable, the provisions of article 1.4.3 of the framework contract shall apply.

6.2 Ordering process using the reopening of competition

For specific contracts above EUR 60,000.00, all contractors will be invited simultaneously to submit an offer in response to the service request.

The request shall comprise, at least, of:

- A technical annex, consisting in a description of the requirements of the contracting authority, defining the scope of the competition, the requested deliverables and the expected project timeline

- A financial annex, consisting on a template for the contractor's financial offer.

When submitting their specific tenders, it will be up to the contractor to define the appropriate team structure (profiles, allocation of time and tasks per profile, etc.) and each team member's rate. The rates included in the framework contract are considered to be maximum rates and they can only be increased on the basis of the indexation as foreseen in the framework contract. However, contractors are free to present a financial offer with lower rates.

The contracting authority will evaluate and rank all offers based on the award criteria for the re-opening of competition published in the tender documents. Before the submission of their specific tenders, contractors will be entitled to request clarifications to the contracting authority not later than 4 working days before the deadline for submission of the specific tender. Answers shall be provided to all contractors no later than 2 working days before the deadline for

submission. If necessary, the deadline for submission may be extended at the discretion of the contracting authority.

The contractor whose offer has been evaluated as presenting the best quality/price ratio shall be awarded the specific contract. In case this contractor refuses to sign the ensuing specific contract, it shall be offered to the contractor having submitted the second best ranked offer, etc.

6.3 Professional conflicting interest

If during the implementation of the framework contract a contractor falls into a situation that could give rise to professional conflicting interests as provided for in Article II.7 of the framework contract, it must notify the contracting authority in writing as soon as possible. The contracting authority may decide not to invite a contractor that has been awarded a specific contract for a project in a cascade mode to a competition for future developments directly related to the results of the specific contract in cascade, if it considers that such contractor might be in a situation of professional conflicting interest.

7 Specific requirements for Times and Means request for services

In relation to the Times and Means request for services, the conditions described below will apply.

Prior to the conclusion of the specific contract or order form:

- The contractor(s) must present, for each requested profile, at least 2 candidates that meet the minimum education and professional experience requested per profile.

- The proposed candidates must be available for interviews via telephone or at the Contracting Authority's premises.

- Candidates proposed must be available at the start of the project and also be able to work at the Contracting Authority's premises, if specified, for the required period.

During the execution and after the conclusion of the specific contract or order form:

- Upon the Contracting Authority's request, the contractor must be able to replace the personnel who prove incapable of carrying out the specified tasks to the required standards. The replacement candidate will be given sufficient training during an adequate handover period of at least 14 working days, so that he/she may be immediately operational when the original candidate is withdrawn. Any such replacement and training, if required, will be carried out at no additional cost to the Contracting Authority.

- The contractor shall give one month's notice to the Contracting Authority of any personnel changes in the team. The prior agreement of the Contracting Authority must be obtained.

- In case of *'force majeure'*, if the original person is no longer able to carry out the work, the contractor is obliged to inform the Contracting Authority, immediately provide a competent replacement person and arrange sufficient training (during an adequate

handover period where possible) to guarantee continuity of the service provided to the Contracting Authority. Any such replacement will be effected at no additional cost to the Contracting Authority.

- In case of replacement, the contractor must propose a minimum of two replacement persons with the required qualifications and professional experience.

For Times and Means orders, the prices per person-day must include all costs and expenses directly and indirectly connected with the services to be provided, **except for the travel costs from the contractor's place of establishment to the Contracting Authority's premises in Vienna (Austria) and the corresponding daily and accommodation allowances**, which will be reimbursed separately to the contractor in accordance with the provisions stated in article 1.5.3 and 2.22 of the Draft Framework Services Contract (Annex B).

The daily subsistence allowance and the flat-rate ceiling accommodation applicable are as follows:

Destination	Daily subsistence allowance (in EUR)	Flat-rate ceiling accommodation (EUR)
Austria	102	132

8 Project management and progress reporting

For the implementation of specific contracts and order forms under the framework contract, the following is applicable:

8.1 Project organisation

The project organisation will consist of the contractor's project team and the Project Officer/Manager appointed by the Contracting Authority.

The contractor shall nominate a project manager to have on his/her behalf overall responsibility for the execution of the project. The selected tenderer shall supply the curriculum vitae of the proposed project manager and other members of the project team.

A back-up for the contractor's project manager in case of unavailability should be nominated. In addition, a description of the tasks, responsibilities and profiles of all members will be provided in the contractor's offer. Any change of project related personnel occurring once the contract has been signed shall be notified to the Contracting Authority in writing. The Contracting Authority shall agree to the proposed changes in writing provided that the curriculum vita of the new member is in line with the Contracting Authority requirements.

The project manager will ensure that the work under the contract is executed according to the specifications and with respect to the contractual deadlines. The project manager will be responsible to ensure quality-check of all deliverables and to respect the project management and quality plans.

The Contracting Authority will nominate a Project Officer/Manager to monitor the project schedule and its progress. He or she will be the main point of contact for the contractor.

The Project Officer/Manager may be assisted by other Contracting Authority's officers, if deemed necessary. The contractor will be informed in such case.

8.2 Project Meetings

During the life of the contract, project meetings will take place. This will be either at the Contracting Authority's premises or via phone / video conference – to be decided by the Contracting Authority. These meetings will include a kick-off meeting at the beginning of the project, typically at the Contracting Authority's premises and the meetings necessary for the take-over and/or handover of the contract. **Meeting expenses will be paid to the contractor on the basis of Times and Means requests for services.**

8.3 Communication & Language

Communication between the contractor and the Contracting Authority must be possible by phone, electronic mail, normal and registered mail. Communication must be possible outside normal working hours and the Contracting Authority must be assured of a prompt response. The working language of the Contracting Authority is English. The English language shall be used throughout the project duration for all communication, reports and other documentation.

8.4 Project Management and Quality Plan

For fixed price specific contracts, the contractor(s) shall supply an overall **Project Management and Quality Plan (PMQP) following contract signature**. At minimum, the PMQP should include details of:

- The quality assurance methodology to be applied by the contractor, including relevant quality check-points and indicators related to the contract,

- the contractor's project organisation, including the main points of interface with the Agency,

- a detailed project schedule,

- project deliverables and timing,

- an Acceptance Plan including all milestones, deliverables, review, activities and dependencies for the timely and efficient completion of the contract,

- the project's critical path,

- a risk assessment and risk mitigation procedures,

- a list and description of actions required to be taken by the Contracting Authority.

The PMQP should be of sufficient detail to enable the Contracting Authority to evaluate progress and assess the QA methodology applied. The PMQP shall be one of the project deliverables under a specific contract or order form, being subject to the approval by the Contracting Authority. If a need arises, the PMQP should be updated to reflect the current

situation (again subject to Contracting Authority's approval).

8.5 Project monitoring and reporting

In case of long term specific contracts, i.e. lasting more than 3 months, the contractor might need to submit regular progress reports to the Contracting Authority, addressing at least the following points:

- the current status of the project,

- an analysis of any problem experienced and corresponding corrective actions, taken or proposed,

- justification of any details occurred,

- current resource consumption per team member.

- any actions required to be taken by the Contracting Authority,

- an updated detailed project schedule,

- detailed plan of activities for the next month.

The last month of the specific contract or order form the contractor(s) shall prepare and submit a Final Report to the Contracting Authority, addressing at least the following:

Details of the results achieved,
- Deviations from the original project plan with detailed justifications,

- Description of problems encountered and solutions adopted,

- Deliverables submitted.

8.6 Acceptance of deliverables

The procedure for accepting the deliverables shall be the following:

- The Contracting Authority receives the deliverables according to the contract deadlines.

- During the progress report meetings, the contractor presents the deliverables for discussion with the Contracting Authority.

- Further actions which, in the opinion of the Contracting Authority, would be necessary for the acceptance of the deliverables will be undertaken by the contractor without delay. A new deliverable which takes into account comments or suggestions made by the Contracting Authority will have to be re-submitted within (2) two weeks unless specified otherwise.

- The contractor provides the Contracting Authority with access to an online database

in order to monitor possible bugs and problems. Both parties will enter problems and bugs faced as tickets. The contractor will update the status of the tickets to reflect progress. The Contracting Authority's Project Officer shall give his / her approval before any ticket is closed.

- Once a deliverable is accepted by the Contracting Authority, the contractor shall provide a period of 12 months' warranty during which bugs and problems will be fixed by the contractor free of charge, in accordance with article 1.14 of the Framework Contract.

All reports and related documentation delivered to the Contracting Authority shall be written in English.

The contractor shall produce the deliverables in an electronic format if requested.

9 Description of profiles

The following sections describe the project team's requested profiles per lot:

9.1 Project Manager

Nature of the tasks	• Project management including proposals for project strategies, planning, definition of tasks and deliverables, review of project deliverables, quality control, risk analysis and management, project status reports, problem reporting and management systems, follow up and organization. • Provide effective leadership for the project team ensuring that team members are motivated and constantly developing their skills and experience. Be in-charge of project activities and review deliverables. • Participate in functional and technical working groups and progress meetings. • Estimate monitors costs, timescales and resource requirements for the successful completion of each project to agreed terms of reference. • Prepare and maintain project and quality plans and tracks activities against the plan, provide regular and accurate reports. • Manage the change control procedure following agreement for revisions to the project from project sponsors.
Education & Professional Experience	• University degree or secondary education followed by 8 years of professional experience • Minimum 6 years of professional experience in IT • Minimum 4 years of proven experience in IT Project Management • Excellent knowledge of written/spoken English (minimum level C1 based on Common European Framework of Reference (CEF)).

9.2 Senior Analyst

Nature of the tasks	• Analyse requirements and transform them into technical specifications • Consultancy studies in a specific technical domain regarding information systems. • Production of use case models, software architecture documentation. • Provide expertise in a specific technical domain regarding information systems. • Provide expertise in the fileds of data protection/privacy and information security. • Technical evaluations and provide expertise on integration of information systems into the working environment • Experience in the use and implementation of cloud services. • Able to draft all the required documentation.
Education & Professional Experience	• University degree or secondary education followed by 6 years of professional experience. • Minimum 4 years of professional experience in IT • Minimum 3 years' professional experience in technical analysis tasks (e.g. analysis and programming, databases, web application development) as well as working with at least 3 of the products, technologies and tools listed in Section 4 of Annex A.1 Technical Specifications for the corresponding lot • Good knowledge of written/spoken English (minimum level B2 based on Common European Framework of Reference (CEF))

9.3 Senior Developer

Nature of the tasks	• Definition of the logical and physical structure of web applications including cloud based ones • Architechting and prototyping including cloud based architecture • Produce the relevant technical documentation and documentation for the support team. • Definition and integration of the various required technological components. • Development of web-enabled applications, from front-end to back-end systems. • Creation of distributed applications for web environments incl. cloud based applications

Education & Professional Experience	• University degree or secondary education followed by 6 years of professional experience • Minimum 4 years of web development and database experience working with at least 3 of the products, technologies and tools listed in Section 4 of Annex A.1 Technical Specifications for the corresponding lot • Good knowledge of written/spoken English (minimum level B2 based on Common European Framework of Reference (CEF))

9.4 Developer

Nature of the tasks	• Development and maintainance of web applications • Development of front-end and back-end systems including database development tasks • Cloud based application development
Education & Professional Experience	• University degree or secondary education followed by 5 years of professional experience • Minimum 3 years of professional experience in web development and database experience working with at least 3 of the products, technologies and tools listed in Section 4 of Annex A.1 Technical Specifications for the corresponding lot • Good knowledge of written/spoken English (minimum level B2 based on Common European Framework of Reference (CEF))

9.5 Graphical Interface Designer / User Experience Expert

Nature of the tasks	• Design and Development of user interfaces. • Knowledge of human interaction in Information systems and ergonomic aspect s and related international standards like W3C, WAI etc. • Application of accessibility and usability best practices • Definition and creation of the graphical layout of web pages, prototyping. • Creation of graphical elements to be included in web pages.
Education & Professional Experience	• Complete training courses on web design and/or user experience or 4 years of proven professional experience in web design and/or user experience. • Minimum 3 years of professional experience in web design and/or user experience • Good knowledge of written/spoken English (minimum level B2 based on Common European Framework of Reference (CEF)).

9.6 Instructional Designer (only for Lot 2)

Nature of the tasks	• Working closely with content experts to create content for online courses • Understanding the goals of the course and designing the content to enable students to meet those goals • Preparing the course content in a format suitable for online learning • Ensuring that courses and course material meets usability and accessibility standards
Education & Professional Experience	• Minimum least 2 years of professional experience in designing web-based courses for learners; • At least 2 projects using e-learning development tools and software; • Excellent knowledge of English (Common European Framework of Reference - CEF - level C1)

The CVs presented must have experience, <u>collectively as a team</u>, in all the products, technologies and tools listed in Section 4 for the corresponding lot.

The minimum number of CVs per profile to be provided is as follows:

ID	Profile	Lot 1	Lot 2
1	Project Manager (PM)	1 CVs	2 CVs
2	Senior Analyst (AN)	1 CVs	2 CVs
3	Senior Developer (SD)	2 CVs	3 CVs
4	Developer (DEV)	2 CVs	3 CVs
5	Graphical Interface Designer (GID)	1 CVs	2 CVs
6	Instructional Designer	--	1 CV

The same CV can be proposed for each Lot but the same CV can only cover one of the above profiles. All CVs proposed must meet the minimum educational and professional requirements per profile described above. Additional CVs can be proposed to cover all products, technologies and tools.

An indicative resource allocation per profile for the duration of the framework contract is presented below:

ID	Profile	Lot 1	Lot 2
1	Project Manager (PM)	10%	10%
2	Senior Analyst (AN)	10%	10%
3	Senior Developer (SD)	45%	42%
4	Developer (DEV)	30%	30%
5	Graphical Interface Designer (GID)	5%	5%
6	Instructional Designer	--	3%

The following table gives an indication of the Contracting Authority's software development and technology usage:

ID	Software development Technologies	% of effort for the FWC duration	
		Lot 1	Lot 2
1	SharePoint, Project Server, .NET, ASP.NET, MS SQL	100%	--
2	JAVA, J2EE, JavaBeans, Oracle	--	5%
3	Drupal, PHP, MySQL, R, SPSS, HTML, HTML5, CSS, XML, XSL, Javascript, Objective-C, Matomo (Piwik), Limesurvey, Moodle	--	95%
	TOTAL	100%	100%

The following table provides an indication of the type of specific contract usage:

Type of Specific Contract	Lot 1 - % of effort for the FWC duration	Lot 2 - % of effort for the FWC duration
Fixed Price	50%	85%
Quoted Times and Means	45%	10%
Times and Means	5%	5%

10 Minimum requirements of the technical specifications

10.1 Minimum requirements for Lot 1:

- The contractor shall be able to provide, as a minimum, the following services listed in section 4.1:
  - o Development and corrective (e.g. bug fixes), adaptive (e.g. upgrades of a technology in use) and evolutive (changes to accommodate business needs) maintenance of existing intranet, as well as preventive maintenance i.e. changes which aim to improve the long term maintainability of the application and reduce technical debt (e.g. refactoring, increase in test coverage, etc.);
  - o Development and maintenance of new intranet applications;
  - o Data analysis, modeling, architecting and migration;
  - o Web application integration solutions.

- The contractor shall provide, once a deliverable has been accepted by the Contracting Authority, a period of 12 months' warranty during which bugs and problems will be fixed by the contractor free of charge.

10.2 Minimum requirements for Lot 2:

- The contractor shall be able to provide, as a minimum, the following services listed in section 4.1:

  - o Development, corrective and evolutive maintenance of existing web and internet applications, mobile apps, e-recruitment system, e-learning systems, other online tools, etc;

  - o Development of new web and internet applications, mobile apps, e-learning systems, other online tools, etc, also including corrective and evolutive maintenance for these applications;

  - o Data analysis, modelling and migration;

  - o Database design and development for web and internet applications;

- o Web application integration solutions;

- o Usability and accessibility testing of existing and new web and internet applications, mobile apps, e-recruitment system, e-learning systems, other online tools, etc;

- The contractor shall provide, once a deliverable has been accepted by the Contracting Authority, a period of 12 months' warranty during which bugs and problems will be fixed by the contractor free of charge.