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Международное агентство по атомной энергии

Organismo Internacional de Energia Atómica

Ms Barbara Hoffheins

US SP Coordinator

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2016-03-24

Dear Ms Hoffheins,

With reference to the US Support Programme, I am pleased to provide the attached new cost-free expert task proposals for your consideration. Copies of the relevant job descriptions will be provided once they become available for distribution.

The Department of Safeguards would appreciate the nomination of more than one candidate. This will allow the Department to perform an evaluation of candidates that will result in the most suitable candidate being selected for the task. To ensure that this process proceeds on a timely basis, I have submitted the proposal below along with a closing date for nominations and expected start date. Also, in order to facilitate the selection process, I would like to ask you to send, together with the nominations, the candidates' Curricula Vitae and IAEA Personal History Forms. All information will, of course, be treated as confidential.

SP-1 Number	Title	Expected Start Date	Closing Date for Nominations
New CFE Task Requests			
15/DS-001	Expert – Authentication and Authorization Specialist	As soon as possible	As soon as possible
15/DS-003	Expert – User Experience Developer		
15/IFC-001	Expert – Environmental Sampling Database Applications Administrator		
15/PS-001	Expert – Quality Assurance Engineer		
15/PS-017	Expert – Information Architect		
15/TSI-003	Expert – Seals Engineer		

Expecting P4 level

Task Proposal (SP-1)

1. Task Proposal

- 1.1. Task Proposal ID:** 15/DS-003
- 1.2. Task Title:** Expert – User Experience Developer
- 1.3. Requestor / Division / Section:** Andreica Dorin_Paul / SGIS / DS
- 1.4. Task Proposal Type:** CFE Task
- 1.5. Task Category:** D (Information Processing)
- 1.6. Reason (if task is either a joint task or desires multiple acceptance)**

2. Project

- 2.1. Project ID and Title:** SGIS-003 - Safeguards Information Systems and System Usability
- 2.2. Project Manager / Division / Section:** Whitaker Gregg / SGIS / PS

3. Safeguards Requirement Identification

3.1. Background

The Office of Information and Communication Systems in the Safeguard Department (SGIS) needs to enhance the User Experience of its software application to create more effective and easy-to-use user interface which will reduce training and operating costs and prevent errors and delays caused by poor usability:

- Understanding and designing the user's experience with a software application: the way in which people interact with this over time: what they do well, what could be improved and how.
- Designing for and evaluating overall effectiveness and efficiency while using a software application.
- Designing to make the product easy to use and evaluating the product in order to identify and fix usability problems.
- When relevant, identifying the temporal aspects that lead to concern for performance issues and user expectations.

These are important aspects of implementing modern software applications. If addressed properly the effective use of software applications will be increased while, at the same time, the overall software application cost will be reduced.

The applications developed and maintained by SGIS address State reporting, analysis of State data (i.e. declarations, statements, commercial activities, etc.), analysis of nuclear data report, travel

preparation and organization, scheduling, incident information, equipment tracking, and document tracking.

3.2. What is Needed and When

The User Experience Developer is needed immediately to:

- Perform User Centred Analysis and Design
- Create Personas to improve designs
- Create user interface prototypes
- Understand interaction design
- Conduct usability testing
- Evaluate how users interact with existing system and applications to find efficiencies
- Quantify with cost calculations the impact of poor user interface design through analysis of errors and delays caused by poor usability
- Maintain and update the Safeguards User Interface Style Guide
- Maintain and integrate new controls into the Safeguards Bootstrap framework

3.3. Why is the task needed and consequences if task is not performed

The task is needed to evaluate and improve the usability and user experience throughout the modernization of IT applications used by staff members in the department of Safeguards. If user experience is not considered during the requirements analysis, design and implementation, the department's staff work effectiveness will be impacted through errors and delays caused by poor usability. If usability is not tested regularly and feedback is not incorporated early in the design and development phases, remediation costs in the maintenance phase of IT applications could increase.

3.4. How will the task results be used and by whom

The task results will be used by all ICT solution providers in the department of Safeguards to implement and maintain documentation and guidelines for appropriate user experience, information architecture and user centered design. It is essential for reducing opportunities for error and finding efficiencies in Safeguards applications.

4. Proposed Sub Tasks

5. Proposed Work Outline

- | | |
|--|------------------------------------|
| 5.1. Estimated Duration (months): | 24 |
| 5.2. Status Report Frequency: | Once every 3 Month |
| 5.3. Supporting Divisions(s) / Section(s): | SGIS / DS , SGIS / SIO, SGIS / USS |
| 5.4. End User Divisions(s) / Section(s): | SG / All |
| 5.5. Proposed Work Phases | |

Phase Number: 1

Phase Title: Produce Work Plan

Description

Work Plan will be created consulting with the Expert by taking his/her experience and knowledge into account.

Start Month after acceptance: 1 **End Month:** 1

Carried out in sub tasks:

Phase Number: 2

Phase Title: Implementation

Description

- Perform User Centred Analysis and Design and conduct usability testing of applications currently under development and in production
- Create Personas to improve designs and create user interface prototypes for applications in the requirements or design phases
- Evaluate how users interact with existing system and applications to find efficiencies
- Quantify with cost calculations the impact of poor user interface design through analysis of errors and delays caused by poor usability
- Maintain and update the Safeguards User Interface Style Guide
- Maintain and integrate new controls into the Safeguards Bootstrap framework
- Work with technical leads to integrate the usability findings into their applications
 - Work with project teams and user communities to establish and unify user experience standards
 - Work with business owners and analysts to define, plan and making a business case in the area of user experience and information design
 - Work with all stakeholders to keep them informed about information design principles, style and component guides, as well as best practices.

Start Month after acceptance: 2 **End Month:** 24

Carried out in sub tasks:

6. Safeguards Approval Process

6.1. Suggested to MSSPs: FRA, GER, UK, USA

6.2. Reason for suggestion of MSSPs

The suggested MSSP have expertise in software engineer and the related technical competencies to

support the requests.

7. Attached Documents

N/A

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N/A

Job Description

Cost-Free Expert

Functional Title: **User Experience Developer**
Grade: **P4**
Organizational Unit: **Application Development Team**
Development Section
Office of Information and Communication Systems
Department of Safeguards
Occupational Group: **1A05 - Computer Information Systems Specialists**

Organizational Setting

The Department of Safeguards (SG) is the organizational hub for the implementation of IAEA safeguards. The IAEA implements nuclear verification activities for some 180 States in accordance with their safeguards agreements. The safeguards activities are undertaken within a dynamic and technically challenging environment including advanced nuclear fuel cycle facilities and complemented by the political diversity of the countries.

The Department of Safeguards consists of six Divisions: three Operations Divisions: A, B and C, for the implementation of verification activities around the world; three Technical Divisions: Division of Concepts and Planning, Division of Information Management, and Division of Technical and Scientific Services; as well as two Offices: the Office of Safeguards Analytical Services and the Office of Information and Communication Services.

Within the Department of Safeguards, the Office of Information and Communication Systems (SGIS) is the centre of competence for the specification, development and maintenance of Information and Communication Technology (ICT) systems and for the management of all ICT infrastructure and services to support safeguards. In partnership with other organizational entities, SGIS is responsible for planning and implementing an ICT strategy as well as enforcing ICT standards.

The Development Section provides ICT services to the Department of Safeguards and Member States, working cooperatively with staff in the Operations Divisions and the Technical Divisions to plan, establish and maintain information systems. The Section specializes in providing system analysis, software design, and implementation and maintenance services. The Section follows and implements best practices in the areas of software engineering, project management and quality management and continuously monitors the Department's information related needs so that they can be met through requests for new or enhanced ICT solutions.

Main purpose

Under the general supervision of the Head of the Development Section, and reporting to the Team Leader for the Application Development Team, the User Experience Designer carries out usability analysis, design, and testing, user interface prototyping, information architecture, documentation and maintenance of a constantly evolving range of ICT solutions running on diverse platforms and mobile devices.

Role

The User Experience Designer is: (1) *an expert* in human-computer interaction, focusing on usability testing and prototyping, visual and interaction design as well as information architecture; (2) *a business analyst*, working with project teams and user to establish and unify user experience standards; (3) *a project manager*, defining, planning and making a business case in the area of user experience and information design; (4) *a team member* of various projects, working collaboratively towards common goals.

Partnerships

The User Experience Designer works closely with various ICT user communities and engineering teams to understand the business requirement and assists in finding the most appropriate solution. The User Experience Designer collaborates with colleagues in SGIS that are responsible for the user training and support, software engineering (standards, guidelines, etc.), and business analysis (business requirements and process).

Functions / Key Results Expected

- Perform User Centred Analysis and Design
- Create Personas to improve designs
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- Understand interaction design
- Conduct usability testing
- Evaluate how users interact with existing system and applications to find efficiencies
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- Maintain and integrate new controls into the Safeguards Bootstrap framework

Knowledge, Skills and Abilities

- *Technical expertise:*
 - In-depth knowledge of user experience analysis and design, information architecture, UI prototyping, and usability testing;
 - At least three years of demonstrated expertise in usability, user experience and user interface design;
 - Familiarity with software engineering projects using an agile software development methodology is an asset.
- *Analytical skills and customer orientation:* Ability to analyse business processes and translate customer requests into ICT solutions that improve user experience.
- *Interpersonal skills:* Ability to establish and maintain good relationships with internal and external counterparts and to work harmoniously in a multicultural / multidisciplinary team with respect and sensitivity for diversity.
- *Communication skills:* Ability to write clearly and in a structured manner and to make effective oral presentations.
- *Knowledge management:* Openness to new ideas, technologies and tools in the user experience and IT industries and a willingness to learn and share skills and knowledge.

Education, Experience and Language Skills

- University (or equivalent) degree in computer science, human computer interaction, interaction design or a related field.
- Minimum of three years of relevant practical experience in usability, user experience or user interface design, applied to mobile and/or web based applications.
- Fluency in written and spoken English. Knowledge of another official IAEA language (i.e. Arabic, Chinese, French, Russian, Spanish) an asset.