

## Attachment I: Dashboard Requirements Specifications and Information

This **Terms of Reference (ToR)** serves as a guide for the development of the Private-Workforce Dashboard Digital Solution. It outlines the objectives, user interface, functional requirements, mock-ups (Attachment III Initial Co-Creation Design), data sources, and specific statistics to be included in the dashboard. Proposals must respond in full to this Attachment.

### 1. DATA SOURCES

The dashboard will integrate data from a variety of sources that the project staff have identified, encompassing both public and private institutions in Kosovo. This is not an exhaustive list, and as the dashboard development progresses, the project staff will notify the contracted parties of any additional data sources that become relevant. Moreover, of the sources we've identified, only one offers real-time access, while the others require manual access. Should this situation change, we will promptly inform the contracted party.

To be clear, the contracted party is not responsible for securing the data from the sources we've pinpointed. Instead, our project staff will facilitate access and provide detailed guidance on the source, nature, structure, and update frequency of these data sources. This assistance aims to ensure the contracted party designs the database structure in alignment with the provided data.

**Below are the identified data sources and their access form:**

1. Job announcement portal (This data source will be provided with real-time access (API))
2. Super Puna, Ministry of Finance, Labour and Transfers - <https://superpuna.rks-gov.net/> (This data source will be provided manually in Excel format.)
3. Tax Administration Office - <https://www.atk-ks.org/open-data/> (This data source will be provided manually in Excel format.)
4. Kosovo Statistics - <https://askdata.rks-gov.net/PXWeb/pxweb/sq/askdata/> (This data source will be provided manually in Excel format.)
5. Central Bank of Republic of Kosovo - <https://bqk-kos.org/> (This data source will be provided manually in Excel format.)
6. Ministry of Education, Science, Technology, and Innovation - <https://masht.rks-gov.net/> (This data source will be provided manually in Excel format.)
7. Kosovo Customs - <https://dogana.rks-gov.net/en/per-doganen/statistikat-dhe-arritjet> (This data source will be provided manually in Excel format.)

### 2. DASHBOARD UX/UI

The dashboard UX/UI for the data-driven digital solution provides a comprehensive and user-friendly interface catering to members of the ICT, Agribusiness, and Wood Processing sectors. These members are sector associations, employers, public and private TVET training providers, relevant government institutions and donors, seeking data for informed decision-making on

workforce development within these industries. Within the project implementation, an initial design using Figma has been developed (See Attachment III of this RFP) using the co-creation methodology with the targeted sectors. Therefore, these key features developed should further be in dashboard in the UX/UI and should include the following:

- **Data Representation:** The dashboard incorporates a variety of visualizations, such as charts, graphs, maps, and tables. These visualizations effectively present data from the ICT, Agribusiness, and Wood Processing sectors, allowing users to quickly comprehend key metrics and trends.
- **Interactive Elements:** To enhance the user experience, the dashboard includes interactive features such as tooltips, filters, sorting options, and drill-down capabilities. These features enable users to explore and analyze data in a more granular and customized manner.
- **Yearly/Quarterly Data Updates:** The dashboard ensures that the data is updated yearly/quarterly, providing users with the most recent information for their decision-making processes.
- **User-Friendly Data Exploration:** Users have the ability to filter, sort, and perform drill-down operations within the dashboard. This empowers them to focus on specific subsets of data, uncover insights, and make informed decisions.
- **Public and Administrative Views:** The dashboard consists of a public view where members can access data visualizations for their respective sectors. Additionally, there is an administrative view that allows council representatives, responsible for database updates, to manage and maintain the data.
- **Simple and Easy-to-Follow Design:** The dashboard design, prepared using Figma, ensures simplicity and ease of use. Users will find it intuitive to navigate and interact with the various data visualizations and features.
- **Device Compatibility:** While the dashboard is optimized for desktop usage due to the nature of the data and the multitude of visualizations, it is designed to be responsive and accessible on all devices, allowing users to access the data even on mobile devices.

### 3. FRONT END

The dashboard should have translation and be available in Albanian as well as in English, and Serbian with the option to change the language on the go; The dashboard should be visually appealing, intuitive, and responsive. It should allow users to easily navigate through different sections, filter data, and access relevant insights. Consideration should be given to the usability and accessibility requirements of the target audience.

The dashboard solution will include the following key features:

- A replication of three instances of the dashboard for each sector (ICT, Agribusiness, and Wood Processing).
- Interactive and user-friendly interface with intuitive navigation.
- Customizable dashboards and reports based on user preferences.
- Real-time data updates and synchronization from the job portals.
- Drill-down capabilities to explore detailed information.

- Presenting a comparative analysis over time, spanning various industries: for instance, scrutinizing the year-to-year annual turnover of companies, average salaries etc.

### 3.1. WORKFORCE DATA - DEMAND SIDE

For each sector (ICT, Agribusiness, and Wood Processing), the dashboard should present the following statistics:

- List out the number of companies per sector, year-on-year (YoY) growth.
- List out number of employees (male and female) per sector, showing YoY growth using data;
- Average salary per sector;
- Top 10 job positions per sector, showing YoY changes using data obtained through API from job portal.
- Trends of the 3-5 sub-activities with the highest growth per sector, showing YoY changes using data from the Tax Administration Office.

***NOTE: The data utilized for the demand side will be sourced from the Tax Administration Office in Kosovo and will be presented on an Excel sheet. The formatting of the data will be tailored to meet specific requirements. In cases where the platform provides published data, an algorithm will be employed to fetch the information automatically by the selected company/consultant.***

### 3.2. WORKFORCE DATA - SUPPLY SIDE

For each sector (ICT, Agribusiness, and Wood Processing), the dashboard should present the following statistics:

- List out educational institutions in Kosovo, curricula programs and duration;
- List out number of private/public training providers and duration;
- Interactive map showcasing geographic distribution of training providers in all sectors with pinpoints;
- Number of graduates from TVET/selected universities;

***NOTE: The data utilized for this analysis will be sourced from the Ministry of Education, Science, Technology, and Innovation and will be presented in an Excel sheet. The formatting of the data will be tailored to meet specific requirements. In cases where the platform provides published data, an algorithm will be employed to fetch the information automatically by the selected company/consultant.***

### 3.3. WORKFORCE DATA - IMPORT AND EXPORT DATA

For each sector (ICT, Agribusiness, and Wood Processing), the dashboard should present the following statistics:

- List out import and export data;
- List out annual turnover;
- List out YoY changes and be sourced from the Central Bank of Republic of Kosovo and the Agency of Statistics. The data will be fetched in Excel format and should allow filtering by categories of import and export, products, and services for the ICT, Agribusiness and Wood Processing.

## 4. ADMINISTRATIVE DASHBOARD SIDE

This feature should only be visible to dashboard owners (admins) as a separate access (Workforce Data dashboard). Administrative part will provide the abilities to add/edit/delete sections and pages as per the necessity.

### 4.1. SITE USER ROLES

Administrator(s) should be able to manage every aspect of front-end data outlined above.

- Ability to add/edit/delete sections;
- Manage demand and supply categories;
- Ability to feed data, upload a selected format;
- Password reset option for the admin (sending email to the registered account email address);
- Manage About us page;

### 4.2. SITE USER MODULES

Administrators need to be able to manage users on the dashboard:

- Add/edit/delete users NOTE: Passwords should be stored securely using latest authentication techniques;
- Role management;
- Users from different organizations need different access and we might also need separate roles for different users within a particular organization;

### 4.3. SITE REPORT MODULES

Various users will see different items on this page depending on the reports they have access to. For instance, council users should be able to see every data entry and self-assessment report from all users. We will have a set of reports that users can generate, and they will be able to change the reports to match the dates they want the reports for. To make it easy for users to find the reports, the section should include various filtering options like (but not limited to).

- Date filter
- Variable filter (various)
- Free text search

Users should be able to export reports in open formats (PDFs, CSV, JSON etc.).

## 5. BACK END

**The backend for the dashboard will be hosted under the sector councils domains and will use the same login credentials as on the existing system.**

### 5.1. SITE REPORT MODULES

**The dashboard will** receive data in various formats depending on the source. For most sources, except job portals, the data is received in formats **such as CSV (Comma-Separated Values) or Excel**. These formats allow for structured data representation and easy handling of tabular data.

The data will be fetched from the respective sources and then processed for integration into the system.

Alternatively, in cases where the respective sources have published their data in a structured and machine-readable format, an algorithm will be created to automatically retrieve the data. This algorithm will be designed to access the data from the source's platform directly, **utilizing APIs, web scraping, or other relevant methods**. By leveraging this algorithm, the system can automatically fetch the data without manual intervention.

**For job portals like Kosova Jobs and Portal Pune**, the system may utilize their APIs to receive real-time updates and synchronize job announcements and related information. This approach ensures that the system stays up-to-date with the latest job postings and relevant data from these portals. Once the data is collected, whether through manual fetching or automated algorithms, it will be processed and transformed into a format compatible with the system's database. This processing may involve extracting relevant information such as job titles, descriptions, qualifications, and other details. Subsequently, the processed data will be fed into the system's central database, where it will be stored and organized for further analysis and visualization.