

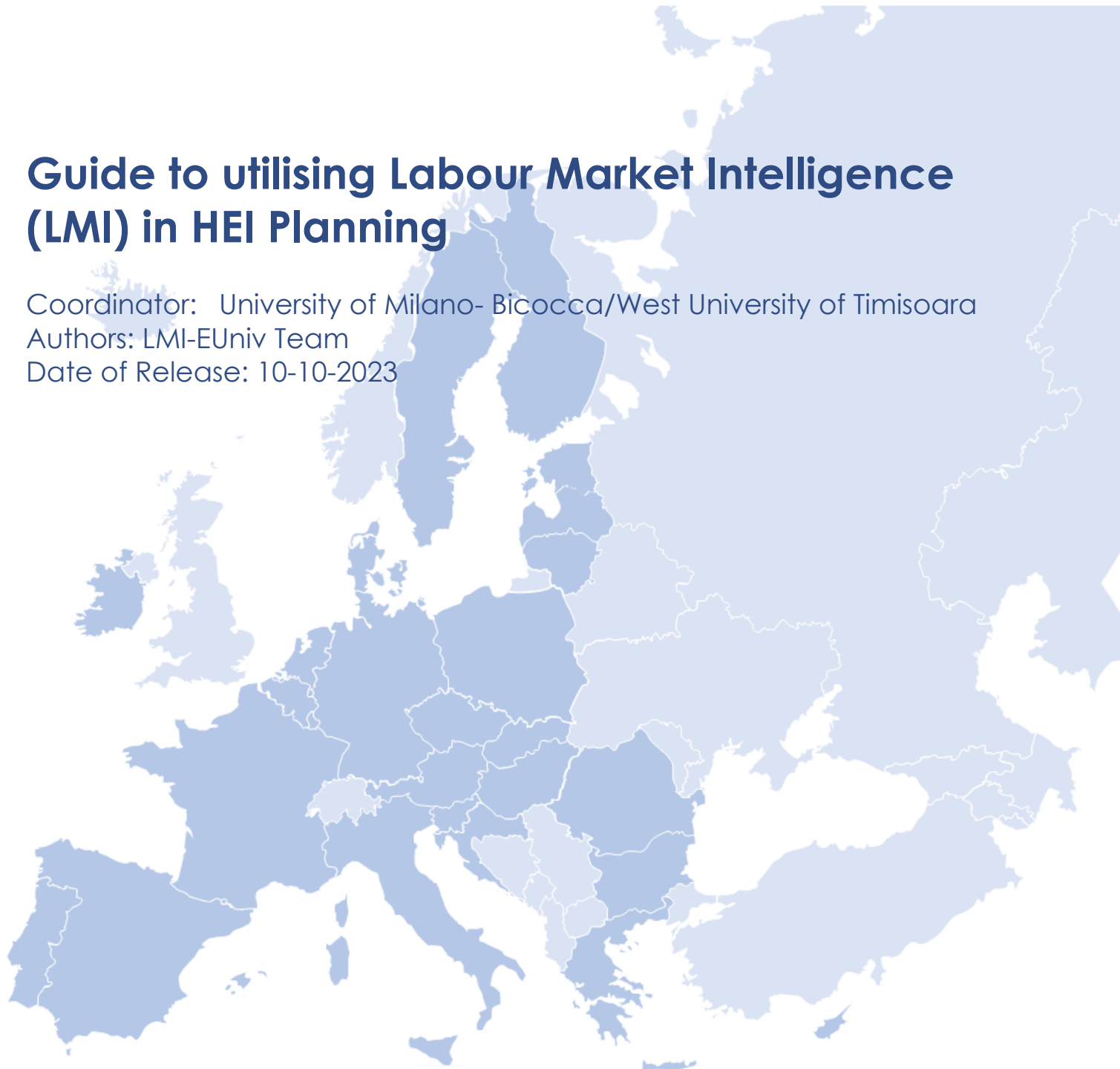


Guide to utilising Labour Market Intelligence (LMI) in HEI Planning

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Date of Release: 10-10-2023



LMI-EUniv Erasmus+ KA2 Project 2021-1-RO01-KA220-HED-000032249

Innovating the use of Labour Market Intelligence
within European Universities - LMI-EUniv



Funded by
the European Union

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LIST OF ABBREVIATIONS

CEDEFOP	European Centre for the Development of Vocational Training
EU	European Union
HEI	Higher Education Institution
ILO	International Labour Organisation
IO	Intellectual Output
LMI	Labour Market Intelligence
LMI-EUniv	Innovating the use of Labour Market Intelligence within European Universities
LMO	Labour Market Observatory
OECD	Organisation for Economic Cooperation and Development
OJA	Online Job Advertisement
OVATE	Skills Online Vacancy Analysis Tool for Europe (Skills OVATE)

INTRODUCTION

The Innovating the use of Labour Market Intelligence within European Universities - LMI-EUniv' project, funded under the Erasmus+ programme's Key Action 2, aims to explore the utilisation of Labour Market Intelligence (LMI) within European Universities. The project is developed by the West University of Timisoara in partnership with the University of Milano-Bicocca, the University of Tallinn, Prospektiker, and the Luxembourg Institute of Socio-Economic Research. The project focuses on enhancing the integration of Labour Market Intelligence (LMI) into the planning and delivery of educational programs offered by European Universities.

This guide provides HEIs with strategies to effectively use LMI to align educational offerings with labor market demands, enhance curriculum development, and improve student employability. Utilising LMI can transform academic programs to meet current and future workforce needs.

Understanding the skills and competencies sought by employers allows institutions to develop relevant curricula that equip students with the necessary knowledge and abilities for successful career entry and progression.

LMI serves as a valuable resource for guiding students in making informed choices about their educational and career pathways. By accessing LMI, students gain insights into employment prospects, salary expectations, and industry trends related to their field of interest. This information empowers them to make educated decisions about their educational choices, specialization areas, and potential career paths.

HEIs equipped with comprehensive LMI can develop effective employability initiatives that bridge the gap between academic knowledge and practical skills. By leveraging LMI, institutions can identify emerging job sectors, skill gaps, and future workforce needs, enabling the design of programs that foster the development of relevant skills and enhance students' employability.

UNDERSTANDING LABOUR MARKET INTELLIGENCE

Definitions

Labour Market Intelligence (LMI) refers to the collection, analysis, and dissemination of data about the labor market and employment trends. This includes information on job vacancies, employment rates, industry growth patterns, skills demands, and salary benchmarks. LMI not only provides descriptive data such as statistics from surveys but also includes analysis that transforms the data into actionable insights. These insights can guide decision-making for policymakers, educators, and business leaders, enabling them to make informed choices based on current and projected economic conditions.

Importance of LMI

Labour Market Intelligence can help to:

1. Understanding Labor Market Trends:

- **Economic Insights:** LMI offers crucial insights into the health of various industries and the economy as a whole. This includes identifying growth sectors, declining industries, and economic shifts that may affect employment and economic strategies.
- **Predictive Analysis:** Through trend analysis and forecasting, LMI helps predict future labor market conditions, assisting institutions in anticipating economic downturns, booms, or shifts in industry demands.

2. Skills Demand and Gap Analysis:

- **Skills Mapping:** LMI identifies current skills that are in high demand by employers across various sectors. This is vital for educational institutions to align their curricula with industry requirements.

- **Gap Identification:** By highlighting discrepancies between the skills provided by the education sector and those demanded by the labor market, LMI enables institutions to address these gaps proactively.

3. Enhancing Employment Opportunities:

- **Career Pathways:** For students and job seekers, LMI provides insights into viable career paths, including emerging job roles and industries, thus aiding in informed career decision-making.
- **Employment Projections:** LMI offers data on which sectors are expected to grow, guiding students in choosing study areas that will likely lead to successful employment.

4. Support for Policy Making:

- **Educational Policy:** Governments and educational authorities can use LMI to develop policies that bolster education in sectors critical to national and regional economic development.
- **Workforce Planning:** LMI supports strategic workforce planning by providing data essential for developing policies that aim to balance labor supply with industry demand.

5. Economic Development:

- **Investment Attraction:** Detailed labor market data can attract investment by showcasing areas with a skilled workforce or highlighting sectors with potential for growth.
- **Regional Development:** LMI helps identify regional strengths and weaknesses, enabling targeted development initiatives that promote balanced economic growth across different areas.

Utilising LMI Effectively

To effectively utilize LMI, institutions must integrate it into their strategic planning processes, curriculum development, and career services. This ensures that educational programs are responsive to the evolving market and that students are equipped with the skills necessary to succeed in the modern workforce. Regular updates and assessments of LMI sources are crucial to maintain the relevance and accuracy of the data used in these endeavors.

By deeply understanding and leveraging LMI, educational institutions, policymakers, and businesses can align their efforts to enhance the employability of the workforce, meet the needs of the economy, and foster overall societal advancement.

Sources of LMI

Labor Market Intelligence (LMI) plays a crucial role in understanding and anticipating labor market dynamics, which is essential for educational institutions, policymakers, and businesses. Here's a detailed look at the primary sources of LMI:

1. National Statistics Offices:

- Role and Impact:** These offices are foundational in collecting, analyzing, and publishing statistical data related to the labor market. They provide vital information on employment rates, unemployment statistics, wage levels, and more.
- Example:** Institutions like the National Institute of Statistics (INSEE in France, ISTAT in Italy) offer comprehensive data sets that cover various aspects of the labor market.

2. Public Employment Services (PES):

- Role and Impact:** PES agencies are instrumental in gathering data directly from the job market, providing real-time insights into job vacancies, employer demands, and employment trends.
- Example:** The Bundesagentur für Arbeit in Germany not only collects but also analyzes job market data to offer services to job seekers and employers.

3. Labor Market Observatories:

- **Role and Impact:** These entities specialize in monitoring and analyzing labor market conditions. They aggregate data from multiple sources, providing a holistic view of market dynamics, including skills gaps and emerging job opportunities.
- **Example:** Observatories like those found in Spain and France conduct regular studies and publish reports that help inform educational and workforce development policies.

4. Educational Institutions and Research Centers:

- **Role and Impact:** Universities and research institutions often conduct their own labor market studies, particularly focusing on graduate tracking, employment outcomes, and the relevance of educational programs.
- **Example:** Higher education institutions conduct alumni surveys and collaborate with industry partners to gather actionable LMI.

5. Employers' Organizations and Sectoral Associations:

- **Role and Impact:** These organizations provide sector-specific labor market insights, which are crucial for understanding industry-specific skills needs and trends.
- **Example:** Organizations like the Confederation of British Industry (CBI) or Employers of Poland offer insights into industry trends, skill needs, and future labor market expectations.

6. International Organizations and Agencies:

- **Role and Impact:** International bodies such as the OECD, ILO, and the European Union gather and disseminate labor market intelligence across borders, helping to understand global and regional labor market trends.
- **Example:** The OECD publishes extensive reports and forecasts that are crucial for global labor market analysis.

PRESENTATION OF THE LMI HUB

The LMI HUB is an innovative platform developed as part of the LMI-EUniv ERASMUS+ KA2 PROJECT. This hub is specifically tailored to provide comprehensive access to Labor Market Intelligence (LMI) for Higher Education Institutions (HEIs) across Europe.

The LMI-EUniv Hub includes a variety of features designed to enhance the accessibility and usability of labor market data. One key feature is the guide on "How to Use LMI EUniv HUB," which provides new users with step-by-step instructions on navigating and utilizing the hub effectively (the current guide). This ensures that all users, regardless of their technological proficiency, can make the most of the hub's offerings.

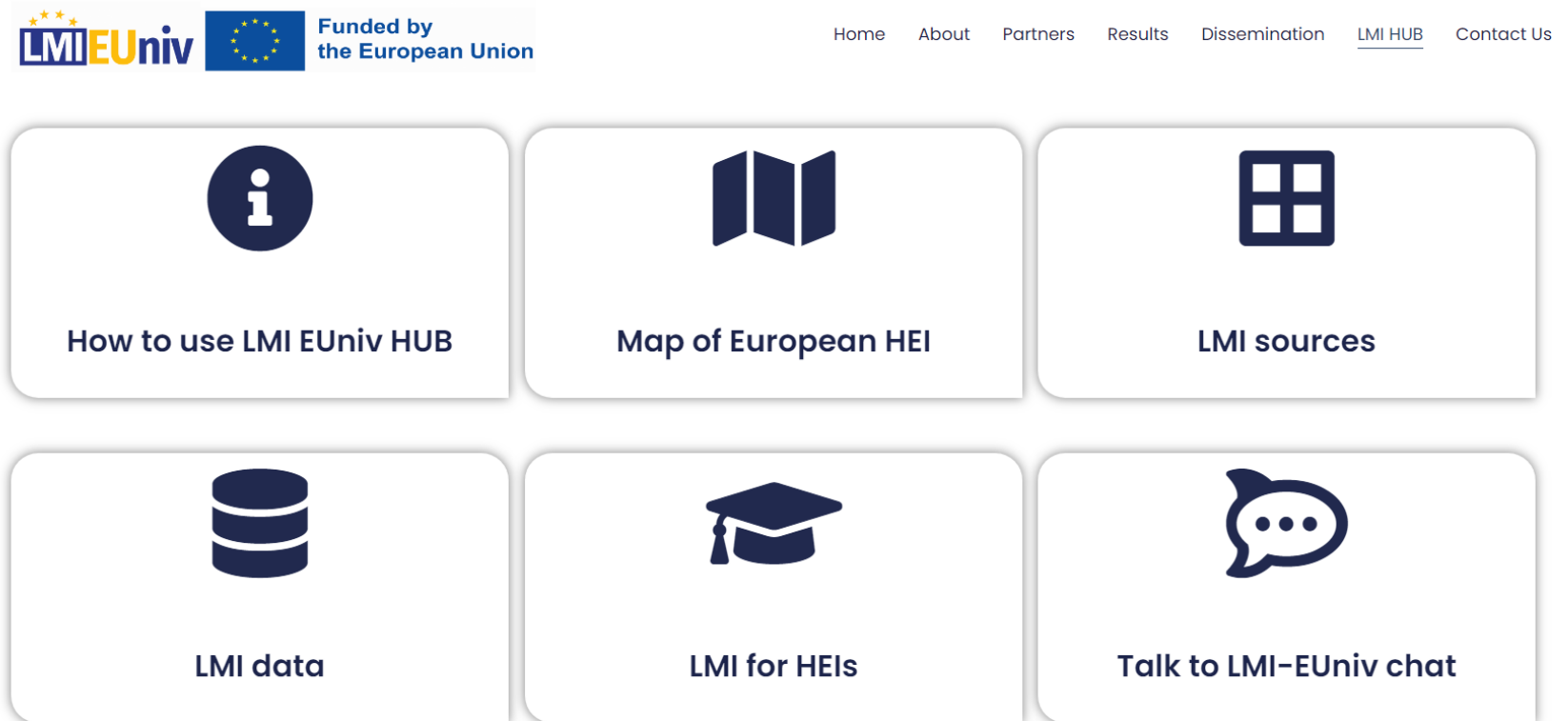
Additionally, the hub offers a "Map of European HEIs," which visually represents the Higher Education Institutions spread across Europe. This feature not only helps in locating and identifying HEIs by country but also enhances networking and collaborative opportunities among institutions.

Another component is the "LMI Sources" section, which centralizes access to various essential labor market sources. This section facilitates the exploration of diverse labor market information, helping users find specific data on employment trends, skill demands, and more.

The "LMI Data" part of the hub stores and displays extensive datasets related to labor market conditions, supporting data-driven decision-making with up-to-date and reliable statistics. For HEIs, there is a dedicated section, "LMI for HEIs," focusing on delivering labor market information that is particularly relevant to academic institutions. This assists in curriculum development and strategic planning based on actual labor market needs.

Lastly, the "Talk to LMI-EUniv Chat" feature offers real-time assistance and responses to inquiries regarding labor market data. This chatbot, powered by advanced AI, provides quick and accurate answers about labor market intelligence, making the hub an invaluable tool for HEIs looking to integrate labor market data into their strategic planning and academic offerings.

Fig. 2: Presentation of the LMI HUB



Utilise LMI HUB

The LMI-EUniv Hub serves as a pivotal resource for educational institutions aiming to align their programs with the current labor market demands, thus enhancing their curriculum and improving graduate employability. With its comprehensive tools and resources, the hub empowers HEIs to make informed decisions that align with European labor market trends.

Use LMI sources from LMI HUB

The LMI-EUniv project has established a detailed and expansive LMI HUB, a central repository dedicated to enhancing the use of Labor Market Intelligence across Higher Education Institutions (HEIs) in Europe. This initiative is part of a broader effort to map and utilize crucial LMI sources at the national level, making them accessible and useful for HEIs.

The LMI HUB has documented LMI sources from 19 European countries, including major EU countries like Germany, France, Italy, Spain, Poland, Romania, and the Netherlands, as well as Belgium, Estonia, Austria, Sweden, Ireland, Latvia, Lithuania, Luxembourg, Portugal, the Czech Republic, and Greece. The HUB aggregates information from 176 LMI providers, ensuring a wide range of data sources. A comprehensive 12,580 sources of labor market information are cataloged within the HUB, providing a rich database for HEIs to draw from. The sources are predominantly national in scope, as highlighted by the graphical coverage on the HUB, indicating a broader strategic focus which assists HEIs in gaining insights that are applicable across entire countries.

Kind of Information Available:

- **Employment Structure:** The largest category with 1,742 sources provides detailed insights into the employment landscape, essential for understanding current and future labor demands.
- **Unemployment:** With 1,308 sources, this information helps HEIs align their curricula with areas showing high unemployment, potentially guiding program adjustments to better prepare students for the job market.
- **Career Information:** 918 sources offer details on working conditions, average salaries, and more, giving students and curriculum developers alike a clear view of career prospects.

- **Educational Structure:** 860 sources offer data on existing educational frameworks, which can guide HEIs in developing or refining courses and programs.
- **Skills/Qualifications Needs, Gaps, and Shortages:** 906 sources specifically target skill gaps, providing critical insights for HEIs to adjust curricula to meet market needs.
- **Postgraduate Path:** Information from 473 sources helps in understanding the trajectories of graduates, aiding in the enhancement of graduate programs and career services.

The LMI HUB is designed with user-friendly navigation, allowing users to filter information by country and type of information. This functionality enables HEIs to access tailored LMI that directly addresses their specific needs and regional focus, facilitating strategic planning and curriculum development based on solid, empirical data. The LMI HUB serves as a pivotal tool for HEIs across Europe, offering a centralized platform where extensive labor market intelligence is readily available. This supports HEIs in making informed decisions to enhance educational offerings and align them more closely with labor market requirements, ultimately boosting the employability of graduates and addressing regional economic needs effectively.

To effectively utilise the LMI sources available on the LMI HUB **access the Hub** at <https://lmi-euniv.eu/lmi-euniv-hub>. Once accessed it, navigate to the 'LMI Sources' section where you can view the comprehensive list of LMI sources.

The interface is designed to be intuitive, allowing for easy browsing and searching. Users can filter LMI sources based on specific countries and types of information. This feature enables tailored searches that align with the users' geographic and thematic interests.

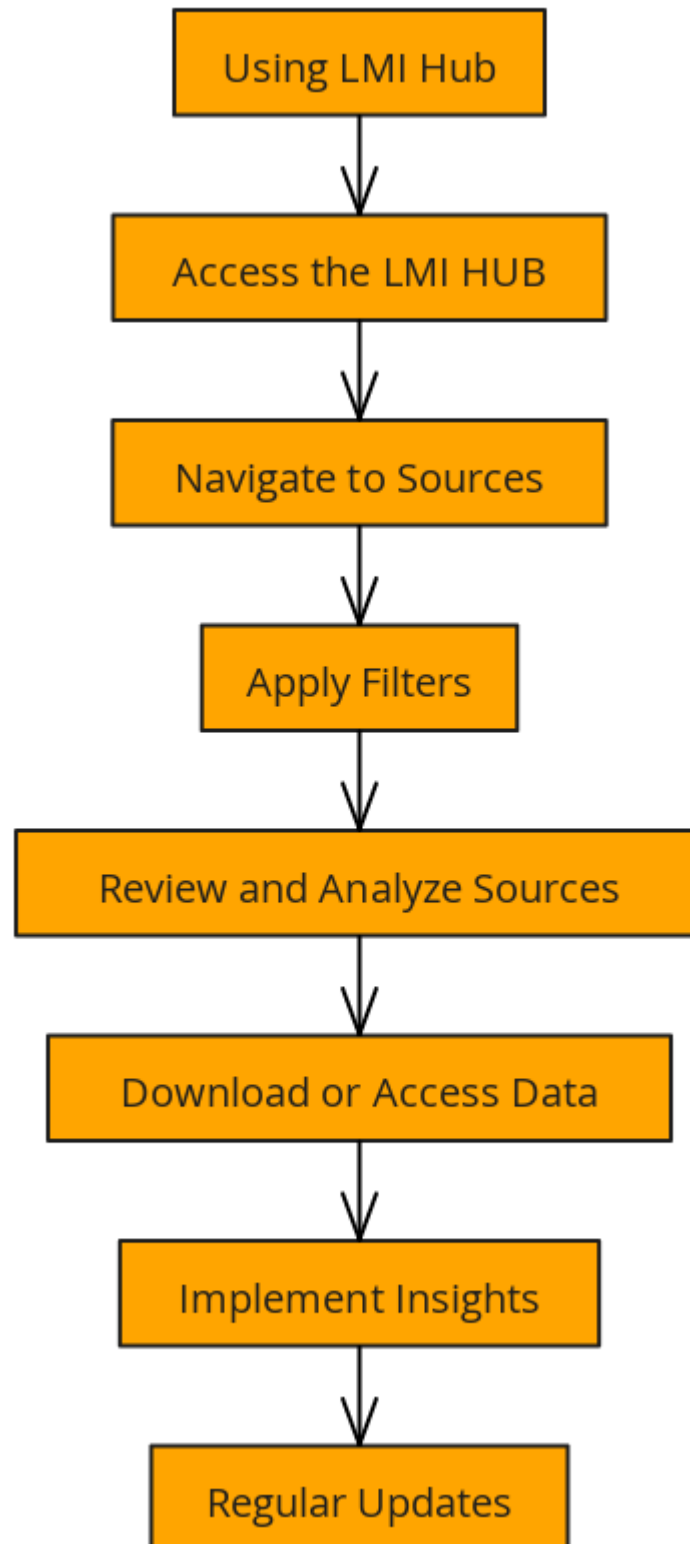
Data Presentation:

- **Country:** Each entry is categorized by country, allowing users to identify location-specific data quickly.
- **Source Name:** Lists the name of the LMI provider, such as government departments or labor market observatories.
- **Type of Provider:** Indicates the nature of the source, such as "Ministry of Labour," reflecting the official or authoritative status of the information.

- **Kind of Information:** Describes the type of labor market data provided, such as "Employment Structure" or "Skills/Qualifications Needs," helping users pinpoint relevant data for specific academic or policy needs.
- **Type of LMI:** Specifies whether the source offers forecasted data, current statistics, or both, aiding in both immediate analysis and future planning.
- **Forecast Information:** Indicates whether the source provides predictive insights, which are crucial for strategic academic and workforce planning.
- **Information Level:** Denotes the scope of data coverage, such as national or regional, helping users understand the applicability of the data.
- **Coverage:** Explains whether the data covers national, regional, or local statistics, providing users with clarity on the geographical relevance of the information.
- **Source of Data:** Identifies the origin of the data, whether from administrative records or other data collection methods.
- **Update Frequency:** Shows how often the data is updated, which is critical for accessing the most current information.
- **Accessibility:** Notes whether the data is openly accessible, restricted, etc., impacting how users can access the information.
- **General Description:** Provides a link or a brief description, offering direct access to more detailed reports or the data source itself.

Each source is evaluated and given a star rating, providing a quick visual indication of the source's reliability or comprehensiveness.

Fig. 1. Flowchart of using LMI sources from LMI HUB



Use LMI chat

The LMI Chat, developed under the LMI-EUniv ERASMUS+ KA2 PROJECT, is an AI-based chatbot designed to facilitate access to and understanding of Labor Market Intelligence (LMI). This chatbot leverages the power of Large Language Models (LLM) to provide users with real-time insights into LMI sources, job trends, skills demand, and more.

To effectively utilise the LMI sources available on the LMI HUB **access the Hub** at <https://lmi-euniv.eu/lmi-euniv-hub>. Once accessed it, navigate to the 'Talk to LMI-EUniv chat' section where you can find the LMI Chat interface.

Initiating Interaction

1. **Start the Conversation:** Click on the chat window to start. You will be greeted by the chatbot, often with a message such as, "Hey there, how can I help you?"
2. **Use Simple Greetings or Commands:** Begin by typing simple greetings or directly state your query. For instance, you could type "Hello" or jump straight into your request with something like, "Can you show me the latest trends in the IT job market?"

Using LMI Chat for Specific Inquiries

1. **Ask Specific Questions:** The LMI Chat is equipped to handle specific queries about various aspects of the labor market. For example:
 - **Job Trends:** "What are the current trends in the marketing sector?"
 - **Skills Demand:** "What skills are most in demand for project managers today?"
 - **Regional Employment Data:** "What is the unemployment rate in Germany?"
2. **Follow-Up Questions:** Based on the initial answers, you can ask follow-up questions to delve deeper into the topic. For example, if the initial question was about skills in demand, a follow-up could be, "Which of these skills are considered entry-level?"

Utilizing Advanced Features

1. **Refine Your Queries:** chatbot provides option to filter responses (e.g., by region, sector, or time frame), use these to refine your queries for more tailored information.
2. **Request Examples or Sources:** Ask the chatbot for examples or direct links to sources for the provided data, such as "Can you show me the source of this data?"

Closing the Interaction

1. **Ending the Conversation:** Once your queries are addressed, you can end the conversation with a simple thank you or by closing the chat window.
2. **Feedback:** Often, there will be an option to provide feedback about your experience. This is crucial for improving the functionality and responsiveness of the LMI Chat.

Tips for Effective Communication

- **Be Clear and Concise:** Since the chatbot operates on algorithms interpreting text, clear and straightforward questions yield better responses.
- **Use Keywords:** Keywords related to labor market concepts (e.g., "employment rates," "skill shortages") help the chatbot understand the context better and provide more relevant information.

Access LMI data

A particular section of the HUB contains data from Skill OVATE produced by CEDEFOP. Incorporating Skills-OVATE into the LMI HUB significantly enhances the hub's utility by providing easy access to detailed, actionable data on occupations, skills, and regional labor market conditions. This integration supports HEIs and policymakers in making informed decisions based on current labor market demands.

Skills-OVATE is an essential resource for understanding labor market trends and skill demands across Europe. Developed through a partnership between Cedefop and Eurostat, this tool analyzes millions of online job advertisements (OJAs) from 32 European countries, providing vital insights into the job market. Skills-OVATE compiles data from a variety of sources including private job portals, public employment service portals, recruitment agencies, online newspapers, and corporate websites. This comprehensive collection allows users to access up-to-date information reflecting current labor market conditions and skills trends. The data is presented for the last four available quarters and is updated quarterly, ensuring users have access to the most recent information. Additionally, yearly averages for key variables can be accessed via Cedefop's skills intelligence platform.

Navigating Skills-OVATE

Users can explore Skills-OVATE data through two primary classifications:

- **Occupations:** Classified according to ISCO-08 (International Standard Classification of Occupations).

- **Sectors and Regions:** Sectors are classified according to NACE rev. 2, and regional data is based on NUTS-2 classifications.

Displaying Skills Information

Skills data in Skills-OVATE can be displayed via two frameworks:

- **ESCO Version 1:** European Skills, Competences, Qualifications, and Occupations framework, which provides a standardized terminology across the EU.
- **O*Net:** Offers a detailed look at the skills required for various occupations predominantly used in the United States but applicable for comparative analysis.

How to Leverage Skills-OVATE in the LMI HUB

To make the most of Skills-OVATE within the LMI HUB:

1. **Navigate to the Skills-OVATE section** via the LMI HUB's main dashboard.
2. **Select your filters** based on occupation, sector, or region to tailor the data display to your specific interests or needs.
3. **Use the insights** gained from Skills-OVATE for curriculum development, strategic planning, and policy-making, aligning educational offerings with market needs.

THE STRATEGIC IMPORTANCE OF LMI IN HIGHER EDUCATION

Incorporating Labor Market Intelligence (LMI) into the strategic planning and curriculum development of Higher Education Institutions (HEIs) is not just beneficial; it is essential for maintaining competitiveness and relevance in today's rapidly evolving labor market. By leveraging the tools and strategies outlined in this guide, institutions can significantly enhance their responsiveness to labor market dynamics and consequently improve their students' employment prospects.

Key Strategies for Effective LMI Integration

In today's dynamic world, Higher Education Institutions (HEIs) must embrace a strategic approach to curriculum development and institutional planning by integrating Labor Market Intelligence (LMI) into their core operations. This integration facilitates a range of transformative actions that ensure educational offerings are aligned with the evolving needs of the labor market

1. **Curriculum Alignment:** Using LMI to continually adjust curricula ensures that academic programs meet the latest demands of the labor market. This involves not only revising existing courses but also introducing new programs that address emerging fields and technologies.
2. **Stakeholder Engagement:** Collaborating with industry partners helps HEIs to regularly update their curricula to align with real-world labor market needs. Such partnerships are invaluable for keeping educational offerings relevant and impactful.
3. **Enhancing Employability through LMI:** Empowering career services departments to utilize LMI can guide students more effectively regarding career paths, expected salaries, and current job market trends. Additionally, designing and implementing skill development programs based on LMI can equip students with the competencies most sought after in the job market.

4. **Using LMI for Strategic Planning:** LMI is instrumental in forecasting future labor market trends, which aids institutions in staying ahead by offering relevant educational programs. It also helps in making informed decisions about resource allocation, focusing on areas with the highest potential for employment growth.
5. **Evaluation and Continuous Improvement:** Regular assessments of how well the integration of LMI into planning and curriculum development meets employment outcomes for graduates are crucial. Establishing robust feedback mechanisms to gather insights from alumni and employers allows HEIs to continuously refine their educational offerings based on actual labor market outcomes.

By integrating LMI into their core strategic functions, HEIs can enhance their educational impact and stay at the forefront of academic and professional development. This not only benefits the institutions and their students but also supports the broader economy by aligning educational outcomes with labor market needs.

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2023