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Ensure awareness of policymakers of the current and future impacts of automation technologies on the labour market

Understanding the current and future impacts of automation technologies on the labour markets is critical, as it lends insight on which types of tasks and jobs will be displaced, what industries and population groups will be affected the most, how jobs will be transformed, and how many/which jobs may be created. Without awareness of the pending shifts in jobs resulting from automation technologies and factors that impact these shifts, policymakers cannot design suitable policies for responding to challenges that are faced by current and future labour markets and enhance utilisation of benefits resulting from automation technologies. Currently, a consistent analysis and monitoring of the impacts of automaton technologies on the labour market is lacking in many countries/regions.

Stimulate research on impacts of automation technologies on the labour market

Policymakers should stimulate research on impacts of automation technologies on the labour market by, for example, encouraging scientists to explore various aspects of these impacts, allocating funding for research and launching projects .[1] The research should capture impacts on specific sectors/industries/occupations, making comparisons across geographies and exploring factors behind investigated impacts. The analysis should focus not only on past and current developments, but also on projections to the future. Collected evidence should be conveyed to relevant public authorities, employers, workers, and the public.

Facilitate accessibility of relevant labour market data

Collection of data for the analysis of labour market trends is conducted by various organisations, including public employment services, research institutions and centres, statistical offices, governmental ministries, labour inspectorates etc. As a result, data is scattered across various data sources, and it is challenging to build a comprehensive analysis of developments. To facilitate accessibility of relevant labour market data, it is advisable to increase transparency and accessibility of data sources, to ensure that essential collected data is transferred to a central repository or there is a mechanism/institution that aggregates this data to perform analyses.

Ensure effective information flow between public organisations

The data/findings regarding how technology is or will be affecting labour markets should be shared and discussed among policymakers and relevant public organisations. This will

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[1] European Parliament. (2022). Policy for research and technological development. Fact Sheets on the European Union. Retrieved December 20, 2022, from https://www.europarl.europa.eu/factsheets/en/sheet/66/policy-for-research-and-technological-development

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stimulate awareness and development of a coherent and comprehensive approach that prepares the labour force for the future of work. Specifically, it is important to involve different government ministries, focusing on education, employment, welfare, innovation, technology, and economy.

Organise regular consultations between policymakers and stakeholders

Key stakeholders, such as research/education institutions, industry and sectoral organisations, and trade unions should be involved in regular consultations with policymakers to raise awareness, to collect and to discuss data on the impact of automation technologies on the labour markers. Regular exchanges should inform the design of policies that help to address challenges faced by the stakeholders and to create conditions that increase opportunities created by automation technologies. Such consultations can be organised on a local/regional, as well as, on a national level to support formulation of overarching nation-wise policies.

Set up mechanisms for continuous monitoring and assessment of the impacts of automation technologies on the labour market

The analysis of impacts of automation technologies on the labour markets should not rely on ad-hoc research projects, as the process of technological transformation and impacts are dynamic and diverse.[2] Thus, a continuous monitoring and assessment is needed. Some countries achieve this by setting up a dedicated research centre or units/departments within existing research organisations which already collect data on jobs, employment rates or vacancies. Others create mechanisms of data collection and monitoring across organisations, networks and stakeholders that are performed by statistical offices or research agencies.

Consider the following PILLARS and external resources to ensure awareness of policymakers of the current and future impacts of automation technologies on the labour market:

Title and weblink	Authors and year	Description
Evidence Informed Policy Making Toolkit	INASP, 2016	This toolkit is designed to equip civil servants in developing countries with skills for evidence-informed policy making (EIPM). It emphasizes sourcing, evaluating, and effectively communicating evidence, while also developing practical implementation plans for EIPM. Employing an interdisciplinary approach that integrates policy analysis, information literacy, research skills, and communication techniques, its aim is to strengthen institutional capacities, particularly within ministerial and parliamentary

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		research departments, and policy analysis units, to facilitate more robust EIPM structures and processes.
The Effect of Robotization in OECD Countries on Latin American Exports	Andreas Baur, Lisandra Flach and Isabella Gourevich, 2022 (PILLARS REPORT)	The impact of automation in affluent nations extends beyond their borders, potentially influencing global supply chains. To assess the ramifications of robot adoption in OECD countries on exports from Latin America to the OECD along the value chain, we merge comprehensive firm-level data from four Latin American nations with information on robot adoption and input-output connections. Our findings reveal that within the same industry, exports decrease following robot adoption, but there's an increase in exports for products further along the value chain. This underscores the significance of considering supply chain connections when formulating policy conclusions about the consequences of robotization, highlighting the intricate interplay between automation and global trade dynamics.
Using Labour Market Information Vol.1	CEDEFOP, ILO and ETF, 2016	This report acts as a guide, delving into labour market monitoring and the assessment of skills demand and supply. It's a foundational resource for understanding how labour market information (LMI) can optimize the anticipation and alignment of skills needed and available. Additionally, it offers crucial advice for policymakers and technical analysts on responding to market signals and enhancing LMI systems for informed policy interventions.
Communicating Open Government: A How-To Guide	OECD, 2017	This resource is a guide tailored for individuals involved in promoting open government, emphasizing transparency, integrity, accountability, and citizen engagement for democratic and inclusive growth. It targets public officials steering open government initiatives, communication officers seeking an expanded role, and individuals, including journalists and civil society members, dedicated to enhancing governmental transparency and participation. Overall, it serves as a comprehensive tool aimed at fostering an open culture within governance.
What Is the Future Of Automation? Using Semantic Analysis To Identify Emerging Technologies	Sugat Chaturvedi, Ekaterina Prytkova, Tommaso Ciarli and Önder Nomaler, 2023 (PILLARS REPORT)	This study delves into the impact of emerging digital automation technologies on work, labour demand, and business organisation by analysing extensive databases like Derwent, PATSTAT, and OpenAlex. Utilising a blend of machine learning and computational linguistics, it identifies these

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		technologies by pinpointing groundbreaking patents and publications, clustering them based on similarity, and assessing their impact over the past decade. The resulting dataset provides key insights for professionals and policymakers, outlining forthcoming technologies and their implications for labour markets and society.
Three Tips Government Leaders Can Use To Communicate Effectively	Jeff O'Malley, 2020	The blog post gives advice to policymakers on how to be effective communicators and why it is important.
The Holistic Toolbox For Private Sector Engagement In Development Co-Operation	OECD	The report identifies key areas for collaboration with the private sector, emphasising policy discussions and technical aid. It calls upon policymakers to establish accessible mechanisms fostering inclusive partnerships involving various private sector entities, foundations, knowledge partners, civil society organizations (CSOs), multilateral organizations, and development finance institutions. These partnerships aim to address intricate development challenges and utilise diverse private sector contributions for development purposes.
Nearshoring and Farsharing in Europe within the Global Economy	Filippo Bontadini, Valentina Meliciani, Maria Savona and Ariel Wirkierman, 2022 (PILLARS REPORT)	The authors' analysis discerns the origins and destinations of value added within global value chains (GVCs), examining input sources and output destinations. It reveals that Europe is increasingly acquiring value added regionally while exporting it globally. Despite this, the majority of European employment arises from within European GVCs, emphasizing the necessity for bolstered intra-EU trade and integration within labor market policies. The study underscores the importance for European economic strategies to not solely concentrate on value added sourcing but also consider the final demand that propels economic activity within the continent.
Assessing The Impact Of New Technologies On The Labour Market: Key Constructs, Gaps, And Data Collection Strategies For The Bureau Of Labour Statistics	Bureau of Labour Statistics (BLS), 2020	The BLS, under the U.S. Department of Labour, is the key federal agency overseeing labour market activity, working conditions, and economic price changes. This report highlights a major insight: insufficient data hinders researchers and policymakers from comprehensively grasping the influence of new technologies on the job market. By thoroughly assessing current research and data collection, this report initiates steps to bridge this crucial knowledge gap.

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Quo Vadis Labour Market? Exploiting AI to Study the Impact of Technology in Reshaping Jobs	Fabio Mercorio, Mario Mezzanzanica and Andrea Seveso, 2023 (PILLARS REPORT)	Identifying which occupations will grow and where, understanding the most sought-after skills in upcoming years, and predicting how technology will impact established professions are key issues in the current policy debate among economists and policymakers. To tackle these questions, a data-driven and real-time analysis of the labour market becomes essential to swiftly capture emerging skills and new job trends in response to market demand. Using AI-driven techniques, the paper categorizes Information and Communication Technology (ICT)-related online job ads. This process helps to identify demands for new tech-related positions (such as AI specialists, Cloud Computing, etc.) and classify job ads based on the European Committee of Standardisation (CEN) framework for technology-related jobs.
Skill Demand, Skill Supply, and the Prevalence of Skill Mismatch in the European Union	Yuchen Guo, Christina Langer, Fabio Mercorio, Mario Mezzanzanica, Filippo Pallucchini, Francesco Trentini and Simon Wiederhold, 2022	This study delves into skill mismatch in Europe, examining the impact of globalization, technological advancements, and structural labor market changes. Using innovative measures derived from online job ads and skill surveys across 17 European nations, the research uncovers two facets of skill mismatch: disparities between workers' skills and employer demands and insufficient qualified early-career workers for specific roles. The findings highlight widespread skill mismatch across occupations and regions, with more prosperous areas facing fewer shortages, while regions encountering higher technological changes confront greater challenges. Notably, the prevalence of on-the-job training emerges as a potential remedy to alleviate skill shortages and enhance workforce employability in Europe.
The Impact Of Robots On Labour Market Transitions In Europe	RWI and IBS, 2022	A study across 16 European countries revealed that exposure to robots had nuanced effects on worker flows: it slightly decreased job separations while modestly boosting job findings. Lower labour cost nations saw more positive impacts on hirings and more negative effects on separations due to robot exposure, particularly benefiting workers in routine-intensive occupations and contributing to lowered unemployment rates.