

1. Introduction

Discrimination in hiring is a lose-lose scenario. Companies and other associations miss out on the best candidate, and it leads to grave injustices for societies. Still, finding the 'best' candidate is a complex challenge. The hiring process in which one or multiple humans subjectively are making decisions in each step, is deeply embedded in multifaceted cultural and historical patterns of bias and inequality.

Completing hiring processes can require a lot of capacity. Thus, algorithmic products have been introduced to reduce cost and time. **There has been a significant uptake in Europe of tools that assist in the screening of candidates, but often associations make use of algorithmic tools or platforms as a black box**, having no or limited insight into different forms of biases that can occur.

We present here a summary of the **Toolkit for Policy Makers** that synthesizes lessons learned and insights from the FINDHR research relevant for those involved in the policy domain, including those stakeholders involved in the implementation and governance of discrimination, data-management, and AI tools. The European project: **"Fairness and Intersectional Non-Discrimination in Human Recommendation (FINDHR)"** (www.findhr.eu), has been funded under EU framework programme Horizon Europe under Grant Agreement No. 101070212. It has developed an array of toolkits, guides, software applications, data resources, and training to help different stakeholders to improve the design and use of algorithms in the hiring process.

FINDHR developed strategies to mitigate intersectional discrimination in AI (Artificial Intelligence) tools that assist human decision-making, particularly those focusing on human recommendation. In other words, it focused on pre-selection or ranking tools that commonly are part of [applicant tracking systems](#) (ATS) in which applicants provide information into an online system, for example a CV and motivation letter, that is analysed by the tool and ranked, thus leading to suggestions for human recommendation such as selecting the ten best for a next review. Like other applications of AI, these tools are vulnerable to creating and perpetuating discrimination in their impact. They are neither neutral nor objective regarding their reasoning & the way they reach decisions, and they make use of data from groups of people in which there could be already biases embedded.

Adding algorithmic tools into a hiring pipeline does not automatically reduce one or more forms of biases with a discriminatory impact. They can even increase discrimination. While it is not realistic to design a system that is completely void of any biases, it is possible to improve the combined decision-making processes of humans using AI tools. This can be done by providing appropriate training on the tools, and by making systems bias-aware in their design and more transparent in the way they process data and interact with their surroundings. **The possibilities of improving algorithmic tools in a system of decision making has been underscored by the FINDHR interdisciplinary research.**

2. Legal & policy gaps identified by FINDHR research

Legal frameworks and policy fall short in addressing individual and systemic harm caused by algorithms.

The AI Act focuses primarily on the development and safety of high-risk AI systems to which AI tools in recruitment belong to. It sets requirements for providers (such as bias mitigation during training), accompanied by technical standards in the future, and includes enforcement mechanisms such as fines. However, the AI Act has several limits or gaps. **This makes the Act a necessary starting point to ensure human-centric and trustworthy AI as the standard for European markets, but it is not complete in addressing all gaps and unclarities.** FINDHR offers recommendations for further refinement or development of the (implementation of the) policy and legal frameworks.



Other relevant legal frameworks are the General Data Protection Regulation (GDPR) and the anti-discrimination directives.



Toolkits for Policymakers, Software Developers and HR Professionals, available online and as PDF:
www.findhr.eu/toolkits.

Other FINDHR materials:

- Training Course Materials
- Equality Monitoring Protocol, combining technical and legal options to monitor discrimination
- Impact Assessment and Auditing Framework
- For Job Seekers: Fine-Tuning your CV
- Recruitment Software Development Guide
- Scientific publications & External Expert Reports
- Datasets and Software Development: Synthetic CVs, Synthetic Interactions, Fairness API

3. Recommendations to integrate the concept of intersectional discrimination into law

Recommendation 1: include an explicit definition of intersectional discrimination into regulatory frameworks

The European Institute for Gender Equality defines intersectional discrimination as discrimination that takes place based on several personal grounds or characteristics/identities, which operate and interact with each other at the same time in such a way as to be inseparable. While the concept of intersectionality has entered policy frameworks at EU level, a clear and explicit definition is lacking in legal and regulatory frameworks, such as the anti-discrimination directives.

The FINDHR Toolkit underscores that most legal and technical fairness measures address single-axis bias (e.g., gender *or* ethnicity), failing to capture the compounded disadvantage experienced by groups such as migrant women, or older men with disabilities. Without intersectional metrics and standards, algorithmic audits can produce misleading results. Intersectional discrimination might be even more often occurring in algorithmic assisted decision-making process compared to those without such tools, as algorithms pick up on all kinds of unexpected proxies for personal characteristics, like one's name, that can influence a ranking positively or negatively.

Recognizing intersectionality in regulation would not only improve accuracy in bias detection but also align the EU's core values as formulated in the Treaty of the Functioning of the European Union. It affirms that fairness in AI cannot exist without acknowledging the real, overlapping structures of discrimination embedded in our societies.

4. Recommendations to enable more transparency in monitoring, collection of data and in explanation

Recommendation 2: Post-deployment monitoring is necessary

AI-based hiring systems should be subject to systematic testing, vetting, and monitoring & evaluation across their full life cycle.

An AI system is not bias-free when it passes testing for deployment in the market. It should be monitored on discriminatory impacts in post-deployment (when on the market). Algorithmic bias can emerge in multiple forms and at multiple points in the cycle of an AI tool. A context-aware approach is needed that considers not only the design of the system, but also the quality of the input data and the interaction between the algorithm, its environment and its users.

The FINDHR Toolkit highlights that once systems are implemented in real-world hiring environments, unforeseen patterns of discrimination often appear. Without structured testing at every stage, these systems can become entrenched before their harm can be detected.

A comprehensive, ongoing evaluation framework should include fairness testing, data audits, and outcome monitoring conducted by independent auditors or equality bodies. Moreover, continuous assessment ensures compliance with EU equality and human rights law while fostering socially responsible innovation. It can build trust by users in the companies and associations that ensure ongoing monitoring. By anchoring this process into the regulatory architecture, the EU would prevent “deploy now, fix later” practices, ensuring that technological innovation in recruitment does not outpace ethical governance.

Recommendation 3: Transparency obligations around AI use must be strengthened in legal frameworks

Transparency obligations must require employers and providers to disclose their use of algorithmic hiring tools, data sources, decision logic, and filtering criteria.

This transparency is fundamental to accountability and fairness. The FINDHR Toolkit stresses that without access to information, neither applicants, auditors, nor regulators can determine whether discrimination has occurred. Lack of transparency entrenches a significant power imbalance: job seekers are subject to opaque evaluations they cannot challenge. At the same time, vendors can claim trade secrecy to shield biased models from scrutiny. Mandating disclosure would also empower researchers and civil society to hold systems accountable. It would create a level playing field for ethical companies, rewarding those that prioritize fairness and openness. Transparency not only supports regulatory compliance but also strengthens public trust in digital hiring technologies, which is a cornerstone of Europe’s human-centric digital transition.

Recruiters can be obliged to disclose their use of algorithmic systems during the hiring process through providing concise information. **This could be done by extending the transparency regime in the AI Act which already requires that people must be informed when they are interacting with an AI system unless this is obvious from the context (Art. 50 AIA).**

Recommendation 4: Build the capacity and rights for jobseekers to request transparency

The beneficiaries of AI tools, which is the jobseeker in case of hiring, need empowerment in rights to be informed, to receive meaningful explanation, to request human review, and to access collective redress for algorithmic hiring decisions.

All individuals affected by algorithmic hiring decisions must be granted enforceable rights to be informed that an automated system is used, to receive a meaningful explanation of how the decision was reached, be able to request a human review of the decision and have the option to participate in collective redress mechanisms where discrimination is systemic.

As the FINDHR Toolkit highlights, these rights currently exist in fragmented or weak forms. Article 22 of the GDPR offers a foundation but lacks clarity and enforceability in employment contexts. Applicants rarely know that an algorithm assessed them, and even when they do, the explanations provided are often technical, incomplete, or incomprehensible. Strengthening these rights ensures procedural fairness and restores human oversight in critical employment decisions.

Moreover, enabling collective complaints and class actions allows civil-society groups to address systemic bias that individual litigation cannot remedy. In practice, this framework would ensure that algorithmic systems remain accountable to the people they assess, not only to the entities that deploy them, reinforcing the EU's human-centered vision of digital rights.

Recommendation 5: Refine the legal framework for collecting personal information to monitor discrimination

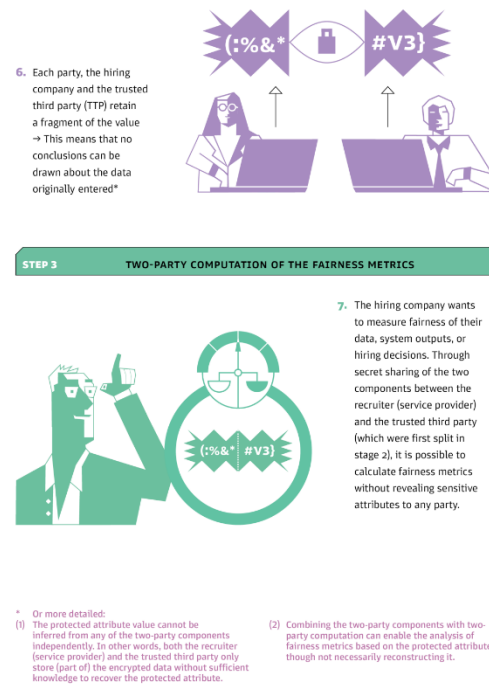
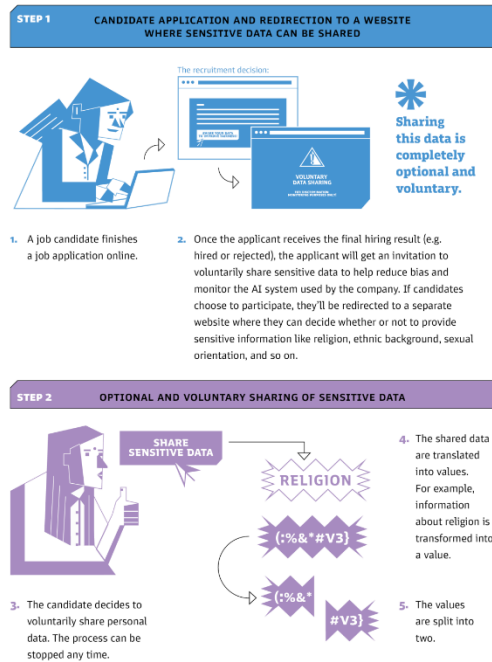
The legal dilemma between data protection and bias detection must be resolved by clarifying rules on the use of sensitive (special category) data for fairness audits and monitoring.

EU policymakers must resolve the current regulatory ambiguity regarding the use of sensitive data such as ethnicity or disability among others, for discrimination monitoring. The FINDHR Toolkit identifies this as one of the most critical technical-policy challenges.

Under the GDPR sensitive data can only be collected under exceptional circumstances. When it comes to discrimination monitoring, this exception means that 'explicit consent' must be freely given. Consent is not freely given if the individual does not have a genuine choice, or in other words, when there is a power imbalance between the one of which data is requested and the collector.

The FINDHR proposes in job application processes to set up an independent third party to collect sensitive information. Such a scheme is called [secure multi-party computation \(MPC\)](#). MPC is a computation scheme adopted by two or more parties (e.g. two organisations) to compute a function of their data without revealing that data to other parties. The scheme is outlined in the illustration on the next page.

A Secure Journey of Sensitive Data – Secure Multi-Party Computation



Other options might be explored as well. **A key conclusion is that without explicit legal guidance, many organizations refrain from collecting or analyzing these data, making discrimination invisible by default. This legal tension discourages fairness testing and obstructs compliance with non-discrimination law.**

Clear policy direction should specify lawful bases and safeguards for processing sensitive data in fairness audits. Establishing such clarity would empower regulators and equality bodies to perform data-driven discrimination analysis responsibly and consistently. This approach would promote a more balanced approach between privacy protection and equality and non-discrimination objectives.

5. Recommendations to enhance the infrastructure to govern & implement anti-discrimination measures

Recommendation 6: An effective strategy to mitigate discrimination in AI assisted hiring starts with involving multiple stakeholders and disciplines

A diverse stakeholder involvement will likely more effectively reduce discriminatory impacts when applying AI tools in the hiring pipeline. Multi-stakeholder involvement and/or disciplinary teams are recommended throughout the hiring cycle and for the

design, development, deployment, and evaluation of algorithmic hiring systems. The governance of algorithmic hiring can also be designed in a participatory manner.

The FINDHR Toolkit concludes that improving fairness requires a contextual aware, socio-technical approach, for example to include an intersectional gender perspective. Such cannot be engineered solely by data scientists or software engineers. For example, without input from those who experience discrimination, technical teams risk overlooking how bias manifests in real hiring contexts. Participation cannot only improve the quality, but also the trust of others in the decision-making.

Policymakers can promote stakeholder involvement, for example through consultation obligations, participatory audits, and advisory boards linked to regulatory authorities.

Recommendation 7: Foster AI literacy of people that have a higher risk towards discrimination

The FINDHR Toolkit stresses that regulatory enforcement alone cannot shift industry behavior. Socio-economic incentives can be equally powerful. By linking funding eligibility to adherence to fairness standards, the EU can leverage its financial power to shape market practices.

Awareness-raising and capacity-building on tackling discrimination in AI-assisted hiring should be proactively fostered. All stakeholders involved in AI-assisted hiring should be made aware of the risks of discrimination and receive training to develop competencies to mitigate these risks. **AI literacy is especially important for people that face a higher risk towards discrimination.** Increased funding can be made available for public employment agencies, NGOs providing dedicated training and others to empower jobseekers with these risks to navigate online application processes, help employers to reach out and consider to these groups as well, and improve feedback loops

Policymakers can support research reproducibility by encouraging the development and use of publicly available datasets. Requiring that systems be trained or validated on standardized, publicly available benchmark datasets before release could improve transparency and comparability and allow third parties to evaluate fairness and accuracy.