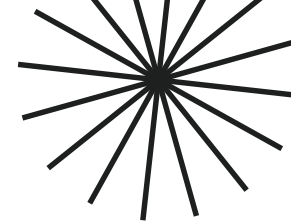




AI used in the labour market needs to be trustworthy and responsible.

The BIAS project aims to empower the Artificial Intelligence (AI) and Human Resources Management (HRM) communities by addressing and mitigating algorithmic biases.

AI is increasingly deployed in the labour market to recruit, train, and engage employees or monitor infractions that can lead to disciplinary proceedings. One type of AI are tools based on Natural Language Processing (NLP) that can analyse text to make inferences or decisions. However, NLP-based systems face the implicit biases of the models they are based upon. Such biases, often rooted on societal stereotypes regarding gender or other personal characteristics, can already be encoded in the data used for machine learning training. Therefore, these biases can be reflected inside the models and the decision-making, leading to unfair decisions.



What are our goals?

The BIAS project will investigate how the AI used in the labour market either contributes to or can help mitigate this discrimination by:

- Developing reliable and novel tools for bias identification and mitigation in AI/NLP systems
- Engaging in robust stakeholder engagement and co-creation for developing the Debiaser, the BIAS proof-of-concept technology that will identify and mitigate biases and unfairness in decision making
- Empowering the AI and HRM communities through awareness raising and capacity building, thus equipping them with tools to develop better technology and promote better practices that reduce algorithmic bias
- Gaining a richly detailed understanding of biases in recruitment that enhances HRM practices, advances the field of worker studies, and contributes to impactful capacity building
- Informing future trajectories of NLP and AI research with increased involvement of underrepresented persons in the AI design, development, training, and deployment
- Reducing biases from the hiring process by creating more equal and fairer practices

For whom?

- Advocates:**
- Labour unions and individual workers
 - Educators
 - Citizen groups and advocacy organisations that promote gender equality and diversity
 - Academics, researchers, and think tanks

Key Players:

- Platforms using AI systems to analyse data
- New technologies developers
- Public and private investors

Context setters:

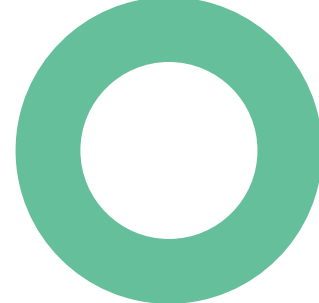
- Local, national and international policy makers
- Standardisation organisations
- Professional networks and recruitment platforms

How can they benefit from the BIAS?



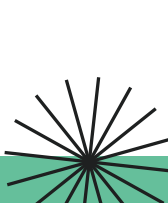
- Through:**
- National labs
 - Interviews and surveys
 - Co-creation workshops
 - Capacity building and awareness raising sessions
 - Trustworthy AI helix
 - Policymaking activities
 - The Debiaser open-source software

The BIAS project will follow an interdisciplinary research and impact methodology.



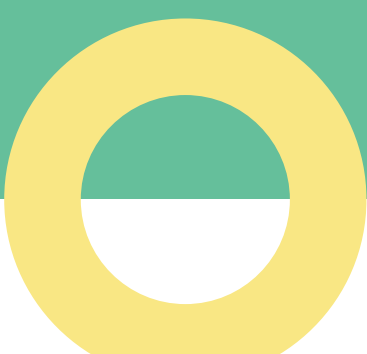
The **research methodology** is based on the following pillars:

- **The creation of national labs in each country** (communities of practitioners, employees, HRM, and AI specialists with a special focus on underrepresented communities). Members of the National Labs, and other interested stakeholders, will participate in needs analysis and stakeholder involvement through surveys, interviews and co-creation workshops
- **AI research and development** with a focus on Natural Language Processing (NLP) and Case-based Reasoning (CBR)
- **Ethnographic fieldwork** with employers, employees, and AI developers from different European countries providing information about current experiences and future scenarios of the use of AI in employment settings
- **The creation of the Debiaser, our proof-of-concept technology** with modules that both identify and mitigate bias and unfairness in decision making, that will be made available to the AI community



These strands will be combined with a detailed and extensive **impact strategy** consisting of:

- Awareness raising on the importance of tackling gender and intersectional biases in AI
- Capacity building to equip the AI and HRM community with tools to prevent bias in AI
- Laying the ground for a product that companies can use to reduce biases in their Human Resources (HR) practices



The BIAS consortium is made of 4 universities, 3 communication partners, 1 large industrial organisation and 1 SME (Small and Medium Enterprise) in these main areas:

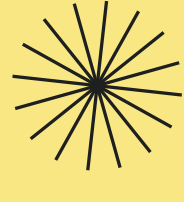
- AI/NLP solutions and research
- SSH (Social Sciences and Humanities) knowledge
- Diversity and inclusion in organisations in HR practices
- Dissemination and communication
- Industrial uptake and commercialization

Partner organisations of the BIAS project



More information at

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