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The European Union Artificial Intelligence Act

Enterprise Exposure

September 2024

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Providing you with an insight on the AI risk landscape

We are pleased to present the 2024 version of our Enterprise Exposure.

Risks are those which may newly develop, or which already exist and are continuously evolving. They are characterised by a high degree of uncertainty in terms of impacts and likelihood, according to the EU AI Act, and may have a substantial potential impact on an enterprise's activity across all of its business functions sector (and those working within those).

The Radar is a summary of likely risk level for a range different AI system across different business functions on a firm- and industry-agnostic basis, in the context of the EU AI Act over the next five years and beyond. Risks are classified as unacceptable, high, specific transparency, and minimal based on their EU AI Act applicability. This list of indicative risk levels leverages the research from **appliedAI GmbH** to provide an updated view following the EU AI Act's entry into force on 1st August 2024 and are based on the expert opinion of specialists and market practitioners at AI & Partners leveraging over 3.5 years of experience.

These indicative risk classifications have been constructed in line with reference under Recital 26 of the EU AI Act.

All risk levels have been assessed and created as part of brainstorming sessions together with extensive market research. They are all benchmarked against relevant regulatory provisions, including those which are not directly related to the risk level. All references to the EU AI Act relate to the version dated 13 June 2024.

We hope you find the report useful and welcome your comments and feedback.

***Risk-based approach –** Risk of harm from an AI system to an individual's *health*, *safety* and *fundamental rights*

Risk Level

Unacceptable Risk

- Manipulative Product Design
- Covert Surveillance and Behavioural Manipulation
- Manipulative Customer Interaction

High Risk

- AI-Dynamic Pricing Algorithms
- Automated Recruitment Screening
- AI-Driven Robotics for Production Lines
- Contract Analysis and Compliance Monitoring
- AI-Powered Loan Approval System
- Supplier Selection and Risk Assessment

Specific Transparency Risk

- AI Chatbot for Customer Service
- Chatbot for Supplier Communication
- AI-Generated Research Summaries
- AI-Driven IT Support Chatbot
- Chatbot for Customer Support
- Supply Chain Optimisation Software

Minimal Risk

- AI-Powered Email Spam Filter
- AI-Enabled Inventory Management System
- AI-Enhanced Literature Review Tool
- AI-Enhanced Spam Filter
- AI-Enhanced FAQ System
- Predictive Maintenance in Warehouses
- AI-Enhanced Email Campaign Optimisation
- Employee Scheduling Optimisation
- Predictive Maintenance Scheduling

Sector

- Accounting and Finance
- Purchasing
- Research and Development
- IT and Security
- Customer Service
- Logistics and Supply Chain
- Marketing and Sales
- Human Resources
- Production and Manufacturing
- Legal

*This this a non-exhaustive illustration of all risks posed by each type of AI system per sub-sector/size. For a full list, please refer to slides 9 – 15.

***Risk-based approach –** Risk of harm from an AI system to an individual's *health*, *safety* and *fundamental rights*

Risk Level

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Widespread impact across all sub-sectors

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Accounting and Finance

Accounting and Finances manage financial health, ensuring accurate records, budgeting, and compliance. AI systems streamline tasks like invoice processing, financial forecasting, fraud detection, and real-time data analysis, enhancing decision-making and operational efficiency.

Purchasing

Purchasing acquires essential goods and services, involving supplier negotiation and cost control. AI optimizes procurement by predicting demand, automating supplier selection, and managing inventory, leading to cost savings and more efficient purchasing processes.

Research and Development

Research and Development drive innovation by creating new products and improving existing ones. AI accelerates R&D through data analysis, predictive modeling, and automating experiments, enabling faster development cycles and more effective product innovation.

IT and Security

IT and Security manage technology infrastructure and protect digital assets. AI enhances cybersecurity through threat detection, automates network monitoring, and optimizes IT resource management, ensuring a secure, efficient, and resilient digital environment.

Customer Service

Customer Service addresses customer inquiries and feedback to improve satisfaction. AI-powered chatbots, sentiment analysis, and automated response systems streamline support, enabling faster resolution, personalized interactions, and improved customer experience.

Logistics and Supply Chain

Logistics and Supply Chain coordinate goods' movement and storage. AI optimizes routes, predicts demand, and automates inventory management, leading to more efficient operations, reduced costs, and better alignment with market demands.

Marketing and Sales

Marketing and Sales drive revenue growth through promotion and direct customer interaction. AI analyzes consumer behavior, personalizes marketing campaigns, and automates sales processes, resulting in targeted outreach, higher conversion rates, and data-driven strategies.

Human Resources

Human Resources manage recruitment, employee relations, and performance. AI enhances HR functions by automating candidate screening, analyzing employee data for retention strategies, and personalizing training programs, improving efficiency and workforce management.

Production and Manufacturing

Production and Manufacturing oversee product creation, ensuring quality and efficiency. AI optimizes production processes through predictive maintenance, quality control automation, and robotics, reducing downtime, waste, and enhancing overall productivity.

Legal

The Legal function provides regulatory guidance and risk management. AI assists with contract analysis, legal research, and compliance monitoring, reducing manual workload, improving accuracy, and enabling faster, data-driven legal decisions.

Risk-based approach to AI system regulation

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Unacceptable

AI systems considered a clear threat to the fundamental rights of people will be banned. This includes AI systems or applications that manipulate human behaviour to circumvent users' free will, such as toys using voice assistance encouraging dangerous behaviour of minors, systems that allow 'social scoring' by governments or companies, and certain applications of predictive policing. In addition, some uses of biometric systems will be prohibited, for example emotion recognition systems used at the workplace and some systems for categorising people or real time remote biometric identification for law enforcement purposes in publicly accessible spaces (with narrow exceptions).

High

AI systems identified as high-risk will be required to comply with strict requirements, including risk-mitigation systems, high quality of data sets, logging of activity, detailed documentation, clear user information, human oversight, and a high level of robustness, accuracy, and cybersecurity. Regulatory sandboxes will facilitate responsible innovation and the development of compliant AI systems. Such high-risk AI systems include for example AI systems used for recruitment, or to assess whether somebody is entitled to get a loan, or to run autonomous robots.

Specific Transparency

AI systems like chatbots must clearly disclose to users that they are interacting with a machine. Certain AI-generated content, including deep fakes, must be labelled as such, and users need to be informed when biometric categorisation or emotion recognition systems are being used. In addition, providers will have to design systems in a way that synthetic audio, video, text and images content is marked in a machine-readable format, and detectable as artificially generated or manipulated.

Minimal

Most AI systems, such as AI-enabled recommender systems and spam filters, fall into this category. These systems face no obligations under the AI Act due to their minimal risk to citizens' rights and safety. Companies can voluntarily adopt additional codes of conduct.

Accounting and Finance

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AI System	Risk Level	Associated Business Function	Description	Reference(s)	Justification
AI-Powered Email Spam Filter	Minimal	Accounting and Finance	This AI system automatically filters and categorizes emails, identifying and blocking spam messages from reaching users' inboxes. Since it poses minimal risk to users' rights or safety, it falls under the minimal risk category. While there are no mandatory regulations, companies can voluntarily implement ethical guidelines to ensure the system functions fairly and transparently.	**Recital 165**	AI systems used for low-impact functions such as basic data processing or routine market monitoring face minimal risk and regulatory obligations. However, companies are encouraged to adopt voluntary ethical guidelines to ensure the system functions fairly and transparently.
AI Chatbot for Customer Service	Specific Transparency	Accounting and Finance	An AI chatbot assists customers by answering queries, providing recommendations, and solving problems. It must clearly disclose that users are interacting with an AI and not a human. This requirement ensures users are aware of the AI's involvement and can make informed decisions during the interaction. The chatbot also needs to label any AI-generated content or responses to prevent misinformation or deception.	**Article 13**	Transparency is crucial to ensure users are aware they are interacting with an AI system. This helps prevent impersonation or deception and allows users to make informed decisions. The requirements include: **Disclosure**: Clearly informing users that they are interacting with an AI system.
AI-Powered Loan Approval System	High	Accounting and Finance	This AI system evaluates loan applications by analyzing a wide range of data, including credit history, income, spending habits, and social media activity. It automates decisions on whether applicants qualify for a loan. Due to its potential impact on individuals' financial access and the risk of biased or inaccurate assessments, it falls under the high-risk category. It must comply with strict regulations on transparency, fairness, and data protection to ensure ethical use.	**Article 6(2)**	The high-risk classification is due to the significant impact these systems can have on individuals' financial access and the potential for biased or inaccurate assessments. To mitigate these risks, the AI system must comply with strict requirements, including: **Transparency**: Ensuring that the system's operations are clear and understandable to users.
Emotion Recognition in the Workplace	Unacceptable	Accounting and Finance	This AI system uses facial recognition and biometric data to monitor and analyze employees' emotions in real time to assess their mood, stress levels, or engagement at work. While intended to improve productivity and well-being, it poses a significant threat to privacy, autonomy, and mental health. Such a system could manipulate behavior, invade personal privacy, and create an oppressive work environment, leading to its prohibition under the AI Act.	**Article 5(f)**	The prohibition is in place to protect individuals from the invasive and potentially manipulative nature of emotion recognition systems in sensitive environments like workplaces. The risks associated with such systems includes: **Privacy Violations**: Continuous monitoring of employees' emotions can lead to significant breaches of privacy.

Purchasing

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AI System	Risk Level	Associated Business Function	Description	Reference(s)	Justification
AI-Enabled Inventory Management System	Minimal	Purchasing	An AI-driven inventory management system that predicts demand and automates reordering processes based on historical data and trends. This system helps optimize inventory levels, reducing the risk of overstocking or stockouts. As it primarily supports operational efficiency and does not directly influence human rights or decision-making with significant consequences, it falls into the "Minimal" risk category.	Recital 165	As it primarily supports operational efficiency and does not directly influence human rights or decision-making with significant consequences, it falls into the "Minimal" risk category. There are no specific obligations under the AI Act for this type of system, though companies can choose to implement voluntary best practices.
Chatbot for Supplier Communication	Specific Transparency	Purchasing	A chatbot integrated into the procurement process, which handles routine inquiries from suppliers, such as order status updates or payment schedules. The AI system must clearly disclose to the suppliers that they are interacting with a machine rather than a human. This transparency requirement ensures that the suppliers understand they are communicating with an AI and not a human employee, avoiding any potential confusion or misrepresentation.	Article 13	Transparency in AI involvement is essential to maintain trust and compliance, ensuring that suppliers understand they are communicating with an AI and not a human employee, avoiding any potential confusion or misrepresentation.
Supplier Selection and Risk Assessment	High	Purchasing	An AI system used in procurement that evaluates and selects suppliers based on a range of criteria, including financial stability, previous performance, and compliance with regulations. This AI might also assess the risk of doing business with certain suppliers, such as the likelihood of supply chain disruptions.	Article 15	AI systems used in employment and workers' management are considered high-risk if they pose significant risks to fundamental rights.
Emotion Recognition in Negotiation Software	Unacceptable	Purchasing	Imagine an AI-driven negotiation tool designed to assist procurement teams during supplier negotiations. The tool uses emotion recognition technology to analyze facial expressions and vocal tones of suppliers in real-time, attempting to gauge emotions like hesitation, stress, or eagerness. The system might suggest negotiation tactics based on perceived emotional states, potentially manipulating the behavior of suppliers to secure better deals.	Article 5	The use of emotion recognition technology in negotiation software to manipulate supplier behavior would be classified as an unacceptable risk under the EU AI Act. This classification is due to the potential infringement on the free will of individuals, aligning with the Act's prohibition of AI systems that manipulate human behavior in the workplace.

Research and Development

AI System	Risk Level	Associated Business Function	Description	Reference(s)	Justification
AI-Enhanced Literature Review Tool	Minimal	Research and Development	An AI tool used by researchers to streamline the literature review process by automatically categorizing, sorting, and highlighting relevant studies from vast databases. This system helps researchers quickly identify key papers and trends in a particular field, improving the efficiency of the R&D process.	Recital 165	Providers of non-high-risk AI systems are encouraged to create codes of conduct to foster the voluntary application of some or all of the mandatory requirements applicable to high-risk AI systems. Low-risk AI in routine operations faces minimal regulatory obligations, but voluntary adherence to best practices is recommended to promote ethical and trustworthy AI.
AI-Generated Research Summaries	Specific Transparency	Research and Development	An AI system used to generate summaries of scientific papers or research reports, making complex information more accessible to non-experts. For instance, an AI tool might be employed to summarize large volumes of research findings into digestible content for policymakers or the general public.	Article 13	High-risk AI systems must be designed and developed to ensure that their operation is sufficiently transparent to enable deployers to interpret a system's output and use it appropriately. This includes providing clear information that is relevant, accessible, and comprehensible to deployers, ensuring that users are aware when they are interacting with AI-generated content.
Autonomous Drug Development	High	Research and Development	An AI system employed in pharmaceutical R&D that autonomously identifies potential drug candidates and predicts their effectiveness and safety. This system uses large datasets of biological and chemical information to suggest new compounds, automates experiments, and even proposes clinical trial designs.	Article 6	AI systems used in high-stakes environments like healthcare are classified as high-risk due to their potential impact on health and safety. The Act mandates that such systems must comply with strict requirements, including risk-mitigation systems, high-quality data sets, logging of activity, detailed documentation, clear user information, human oversight, and a high level of robustness, accuracy, and cybersecurity.
Manipulative Product Design	Unacceptable	Research and Development	An AI system used in R&D that designs products based on behavioral data analysis with the intent to manipulate consumer behavior. For instance, an AI might analyze user data to create addictive features in a digital product, such as a mobile app, that encourages excessive use. The AI system could exploit psychological weaknesses to keep users engaged, potentially harming their well-being.	Article 5	The EU AI Act explicitly prohibits AI systems that deploy subliminal techniques beyond a person's consciousness or purposefully manipulative or deceptive techniques. These techniques aim to materially distort the behavior of a person or a group of persons by appreciably impairing their ability to make an informed decision, thereby causing them to take a decision that they would not have otherwise taken, in a manner that causes or is reasonably likely to cause significant harm.

IT and Security

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AI System	Risk Level	Associated Business Function	Description	Reference(s)	Justification
AI-Enhanced Spam Filter	Minimal	IT and Security	An AI system used to filter spam emails and detect phishing attempts within a corporate email system. It automatically categorizes emails as spam or legitimate based on patterns, keywords, and sender reputation, improving the accuracy of email management.	Recital 165	**Minimal Risk to Users' Rights**: The AI-enhanced spam filter operates with minimal risk to users' rights and primarily enhances operational efficiency, making it a minimal risk system.
AI-Driven IT Support Chatbot	Specific Transparency	IT and Security	A chatbot integrated into an IT support system that assists users with troubleshooting technical issues, answering common questions, and guiding them through processes like password resets or software installations. The chatbot must clearly inform users that they are interacting with an AI, not a human technician.	Article 13	**User Awareness**: The chatbot must inform users that they are interacting with an AI system to ensure transparency and maintain trust. This is particularly important if the AI uses biometric recognition for authentication
Predictive Threat Detection in Cybersecurity	High	IT and Security	An AI system designed to identify potential cybersecurity threats by analyzing patterns in network traffic, user behavior, and historical attack data. This system can predict and prevent cyber-attacks by automatically implementing countermeasures, such as isolating affected systems or blocking suspicious IP addresses.	Article 6	**Critical Nature of Cybersecurity**: Given the potential for AI errors to result in severe consequences, such as unauthorized access, data breaches, or false positives that disrupt operations, the AI system for predictive threat detection is considered high-risk.
Covert Surveillance and Behavioural Manipulation	Unacceptable	IT and Security	An AI system embedded in security cameras and workplace monitoring tools that uses biometric data to track employees' emotions, categorize their behavior, and assess their productivity. The system might also manipulate workers' actions by using the collected data to subtly influence their decisions, such as altering their work patterns to increase efficiency.	Article 5	**Manipulation of Behavior**: The AI system described manipulates employees' actions by using biometric data to influence their decisions, which is explicitly banned under Article 5. This manipulation infringes on fundamental rights, particularly the right to privacy and free will.

Customer Service

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AI System	Risk Level	Associated Business Function	Description	Reference(s)	Justification
AI-Enhanced FAQ System	Minimal	Customer Service	An AI system that powers a Frequently Asked Questions (FAQ) page, automatically updating it based on common customer inquiries and feedback. This system helps ensure that customers can easily find accurate and up-to-date information, reducing the need for direct customer service interactions.	Recital 165	**Low Impact**: The AI-enhanced FAQ system provides a low-impact service that enhances the customer experience without significant risks, thus categorized as minimal risk.
Chatbot for Customer Support	Specific Transparency	Customer Service	A customer service chatbot that handles common inquiries, such as order tracking, account issues, and product information. This AI system must clearly inform customers that they are interacting with a machine rather than a human agent.	Article 13	**Transparency in Interaction**: The AI system must inform customers that they are interacting with a machine, ensuring transparency and maintaining trust in the interaction.
Automated Loan Eligibility Assessment	High	Customer Service	An AI system integrated into customer service for financial institutions, which assesses loan eligibility during customer interactions. This system uses customer data, credit history, and predictive models to determine whether a customer qualifies for a loan and at what interest rate.	Annex III, Section 5(b)	**Impact on Fundamental Rights**: The AI system's decisions on loan eligibility and interest rates significantly impact customers' financial lives, potentially affecting their access to essential financial services and their economic well-being. This aligns with the Act's emphasis on protecting fundamental rights
Manipulative Customer Interaction	Unacceptable	Customer Service	An AI system used in customer service that employs advanced emotion recognition to manipulate customer behavior during interactions. For instance, the AI could detect when a customer is frustrated or vulnerable and use this information to upsell products or services in a way that exploits their emotional state.	Article 5(1)(a)	**Impairment of Autonomy**: By manipulating emotions, the AI system impairs the customer's ability to make informed decisions, infringing on their autonomy and free will. This is explicitly prohibited as it causes individuals to take actions they would not have otherwise taken.

Logistics and Supply Chain

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AI System	Risk Level	Associated Business Function	Description	Reference(s)	Justification
Predictive Maintenance in Warehouses	Minimal	Logistics and Supply Chain	An AI system that monitors the condition of equipment in warehouses, such as conveyor belts and forklifts, predicting when maintenance is needed to prevent breakdowns. The AI uses data from sensors and historical maintenance records to forecast potential issues, helping to reduce downtime and improve operational efficiency.	Recital 26	Recital 26 supports the classification of AI systems with minimal risk, such as predictive maintenance systems, as facing minimal regulatory obligations. These systems enhance operational efficiency and safety without significantly impacting fundamental rights, thus requiring no specific obligations under the AI Act. However, voluntary adoption of best practices can further enhance their reliability and trustworthiness.
Supply Chain Optimisation Software	Specific Transparency	Logistics and Supply Chain	An AI system used by logistics companies to optimize supply chain processes, such as predicting demand, managing inventory, and selecting shipping routes. If this system includes a user-facing component, such as a dashboard that makes recommendations or predictions, it must clearly disclose when AI-generated insights are being presented.	Article 13	Article 13 mandates that high-risk AI systems, including those used for supply chain optimization, must provide clear information about their AI-generated insights. This transparency ensures that users are aware of the AI's role in decision-making, fostering trust and enabling informed use of the system.
Autonomous Delivery Drone	High	Logistics and Supply Chain	An AI system that manages autonomous drones used for last-mile delivery in supply chains. The AI is responsible for planning routes, avoiding obstacles, complying with air traffic regulations, and ensuring packages are delivered safely and on time.	Article 6 and Annex III	Article 6 and Annex III classify AI systems used in critical infrastructure, such as autonomous delivery drones, as high-risk due to their potential impact on health, safety, and compliance with regulatory frameworks. These systems must meet stringent requirements, including risk management, transparency, human oversight, and cybersecurity, to mitigate associated risks and ensure safe and reliable operations.
Worker Surveillance and Behavioural Manipulation	Unacceptable	Logistics and Supply Chain	An AI system integrated into a warehouse or distribution center that uses biometric data, including facial recognition and emotion analysis, to monitor employees' behavior, productivity, and emotional state in real-time. The system might automatically issue warnings or adjust workloads based on perceived emotions like fatigue or frustration, effectively manipulating workers' behavior without their consent.	Article 5	Article 5 explicitly bans AI systems that exploit vulnerabilities or manipulate behavior, which includes the use of biometric data for real-time monitoring and behavioral manipulation in workplaces. This prohibition is grounded in the need to protect fundamental rights, including privacy and autonomy, ensuring that AI systems do not infringe on these rights by manipulating workers' behavior without their consent.

AI System	Risk Level	Associated Business Function	Description	Reference(s)	Justification
AI-Enhanced Email Campaign Optimisation	Minimal	Marketing and Sales	An AI system that optimizes email marketing campaigns by analyzing past campaign performance, segmenting audiences, and suggesting improvements for email content and timing. It helps marketers enhance engagement and conversion rates by automating tasks such as A/B testing and performance analysis.	Recital 165	**Low Impact on Rights and Safety**: The AI system primarily improves efficiency and personalization in email marketing, posing minimal risk to user rights or safety. Therefore, it falls into the "Minimal" risk category.
AI-Driven Customer Insights Dashboard	Specific Transparency	Marketing and Sales	An AI system that aggregates and analyzes customer data to provide businesses with insights into consumer preferences, buying patterns, and engagement levels. This dashboard may generate reports or recommendations for marketing strategies.	Article 13	**Transparency and Disclosure**: The AI system must clearly disclose to users and customers that the insights and recommendations are generated by AI. This aligns with Article 13, which mandates transparency for high-risk AI systems to ensure users can understand and appropriately use the system's output.
AI-Dynamic Pricing Algorithms	High	Marketing and Sales	An AI system used by e-commerce platforms to set and adjust prices in real-time based on factors such as customer behavior, demand fluctuations, and competitor pricing. This system can significantly impact customers' purchasing decisions and market competition.	Article 6	**Impact on Fundamental Rights and Market Competition**: AI systems used for real-time pricing can significantly influence consumer behavior and market competition. Lack of transparency in how prices are set can lead to unfair practices, such as price discrimination or manipulation, which can harm consumers and competitors.
Manipulative Personalised Advertising	Unacceptable	Marketing and Sales	An AI system that uses deep behavioral analysis to create highly targeted advertising campaigns aimed at exploiting vulnerabilities or emotional weaknesses of individuals.	Article 5(1)(a)	**Manipulative Techniques**: The system employs manipulative techniques that can distort the behavior of individuals by targeting their emotional weaknesses. This aligns with the prohibition in Article 5(1)(a), which bans AI systems that use subliminal or manipulative techniques to impair individuals' ability to make informed decisions.

Human Resources

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AI System	Risk Level	Associated Business Function	Description	Reference(s)	Justification
Employee Scheduling Optimisation	Minimal	Human Resources	An AI system that helps HR manage employee schedules by analyzing factors such as availability, workload, and peak times to create optimized shift schedules. This system improves efficiency and ensures fair distribution of work without directly affecting employees' rights or personal data in a significant manner.	Recital 165	**Minimal Impact**: Since the AI system primarily automates routine scheduling tasks and poses minimal risk to employee rights, it falls into the "Minimal" risk category. There are no specific obligations under the AI Act for such systems, but following best practices for data security and transparency is recommended.
AI-Powered Employee Feedback Tool	Specific Transparency	Human Resources	An AI system that collects and analyzes employee feedback through surveys and performance reviews to provide insights into employee satisfaction and areas for improvement. If the system uses natural language processing (NLP) to analyze feedback, it must clearly disclose that AI is processing and interpreting the data.	Article 13	**Transparency**: Users must be informed when they are interacting with an AI system. This includes disclosing that AI is processing and interpreting the data, ensuring transparency and clarity in how the information was obtained.
Automated Recruitment Screening	High	Human Resources	An AI system used to screen job applicants by analyzing resumes, cover letters, and online profiles to shortlist candidates. The AI evaluates candidates based on various criteria, such as skills, experience, and even cultural fit, to streamline the hiring process.	Annex III, 4(a)	**Impact on Fundamental Rights**: Automated recruitment systems can significantly influence individuals' employment opportunities, which directly affects their right to work and earn a livelihood. Any biases or inaccuracies in these systems can lead to unfair treatment and discrimination, violating fundamental rights.
Predictive Employee Behaviour Management	Unacceptable	Human Resources	An AI system that analyzes employee data, including personal information, work patterns, and social interactions, to predict future behavior and potential issues like dissatisfaction or attrition. This system could make decisions or recommendations based on these predictions, potentially influencing HR policies or individual employee treatment in ways that could violate privacy or autonomy.	Article 5(1)(a)	**Manipulative Techniques**: If the AI system uses subliminal or manipulative techniques to influence employee behavior without their conscious awareness, it could significantly impair their ability to make informed decisions. This aligns with the prohibition under Article 5(1)(a).

Production and Manufacturing

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AI System	Risk Level	Associated Business Function	Description	Reference(s)	Justification
Predictive Maintenance Scheduling	Minimal	Production and Manufacturing	An AI system that predicts when machinery or equipment is likely to need maintenance based on historical data and sensor inputs. This system helps schedule maintenance activities to prevent unexpected breakdowns and optimize equipment uptime.	Recital 165	**Minimal Impact**: This AI system primarily provides predictive insights to improve maintenance efficiency and does not significantly impact worker rights or safety.
AI-Based Quality Inspection System	Specific Transparency	Production and Manufacturing	An AI system used to automate the inspection of products for defects during manufacturing. This system uses computer vision to analyze products and identify quality issues. If the AI system generates reports or alerts based on its inspections, it must clearly disclose that the analysis and conclusions are AI-generated.	Article 13	**Transparency**: Ensuring that users are aware they are interacting with an AI system is crucial for maintaining trust and accountability.
AI-Driven Robotics for Production Lines	High	Production and Manufacturing	An AI system that controls and coordinates autonomous robots on a manufacturing assembly line. This system is responsible for tasks such as assembling components, quality control, and packaging.	Article 6	**Safety Component**: These AI systems often serve as critical safety components in industrial environments, where their failure could lead to severe accidents or injuries.
Unethical Surveillance of Workers	Unacceptable	Production and Manufacturing	An AI system that utilizes advanced biometric and behavioral analysis technologies to monitor and evaluate workers' performance and personal behavior in real-time. For instance, this AI might use facial recognition and emotion detection to assess employee stress levels and productivity, then make management decisions based on these assessments, such as adjusting workloads or issuing warnings.	Article 5	**Manipulate Behavior**: The AI system could create a coercive environment by constantly monitoring workers, influencing their behavior in ways that undermine their autonomy and free will.

Legal

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AI System	Risk Level	Associated Business Function	Description	Reference(s)	Justification
Document Management and Organisation	Minimal	Legal	An AI system that automates the categorization, tagging, and retrieval of legal documents based on keywords and metadata. This system helps legal teams organize their files efficiently without directly influencing legal judgments or decisions.	Recital 165	**Low Impact on Legal Rights**: AI systems for document management and organization are considered minimal risk because they perform routine, non-critical tasks that do not significantly impact health, safety, or fundamental rights. These systems primarily enhance efficiency and organization within legal firms without posing substantial risks, thus facing minimal regulatory obligations.
AI-Powered Legal Research Assistant	Specific Transparency	Legal	An AI tool used by legal professionals to conduct research and summarize case law, statutes, and legal precedents. This system must clearly disclose that the research summaries and recommendations it provides are generated by AI.	Article 13	**Transparency in AI Interaction**: AI-powered legal research assistants must adhere to specific transparency requirements to ensure that users are aware they are interacting with an AI system. This transparency is crucial to maintain trust and ensure that legal professionals can critically evaluate the AI's suggestions and findings, thereby avoiding reliance on potentially flawed or biased outputs.
Contract Analysis and Compliance Monitoring	High	Legal	An AI system designed to analyze legal contracts for compliance with regulatory requirements and identify potential risks or inconsistencies. This system can review large volumes of contracts quickly, flagging potential legal issues and ensuring adherence to legal standards.	Article 6	**Significant Impact on Legal Compliance**: AI systems for contract analysis and compliance monitoring directly impact legal compliance and can significantly affect the rights and obligations of individuals and organizations. These systems must ensure accuracy, robustness, and transparency to prevent legal misinterpretations and ensure compliance with regulatory standards.
Automated Judicial Decision-Making	Unacceptable	Legal	An AI system that makes legal decisions or recommendations in court cases based on historical data and case precedents without human oversight. For instance, this system might be used to determine sentencing or verdicts. Such a system could pose significant risks to justice and individual rights, as it might lack the nuanced understanding of human judges, potentially leading to biased or unfair outcomes.	Article 5	**Impact on Fundamental Rights**: Automated judicial decision-making systems can significantly affect individuals' rights to a fair trial and due process. The potential for errors, biases, and lack of transparency in AI decision-making processes can undermine the fairness and integrity of judicial outcomes.

- **appliedAI Initiative GmbH**, (2023), "AI Act: Risk Classification of AI Systems from a Practical Perspective", accessible at https://aai.frb.io/assets/files/AI-Act-Risk-Classification-Study-appliedAI-March-2023.pdf (last accessed 28th August 2024)

- **European Parliament (EP) and of the Council (EC)**, (2024), "REGULATION (EU) 2024/1689 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 13 June 2024 laying down harmonised rules on artificial intelligence and amending Regulations (EC) No 300/2008, (EU) No 167/2013, (EU) No 168/2013, (EU) 2018/858, (EU) 2018/1139 and (EU) 2019/2144 and Directives 2014/90/EU, (EU) 2016/797 and (EU) 2020/1828 (Artificial Intelligence Act)", accessible at https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:L_202401689 (last accessed 28th August 2024)

Thank you!

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