Element	Description/Comments	Y/N
Project Team		
All project members have had ethical training	- Members have a confirmation that they have completed courses or workshops or similar - The minimum requirements to consider this element as fulfilled must be defined in the company	
All project members are aware of the topic of bias that exists in the human decision-making process	- Members took part in courses or workshops or similar - The minimum requirements to consider this element as fulfilled must be defined on a project or company level	
All project members know about the fact that human bias can be reflected in an algorithmic system	- Members took part in courses or workshops or similar - The minimum requirements to consider this element as fulfilled must be defined on a project or company level	
All project members consider the same attributes and factors as most relevant in the system context.	- A workshop is held where members share their views. Discrepancies are pointed out and a common understanding is developed. The workshops aim to share views, ideas and openly reveal conflicts and misunderstandings - Due to cultural and background dissimilarities members might (unconsciously) weigh attributes differently	
The project team represents stakeholders of all possible end-user groups	- Stakeholder analysis comprehensively identifies end-user groups with a focus on identifying users who might be disadvantaged through the system outcomes - Stakeholder analysis should be carried out with a change of perspective, where the worst scenario, i.e. if the system behaves discriminatory, identifies the groups that would be disadvantaged. (see area Project Management)	
The project team is a cross-functional team including diversity in ethnicity, gender, culture, education, age, and socioeconomic status	- The inputs of all the diverse individuals must be taken into consideration	
The project team has representatives from the public and private sector	- Exclusions need to be avoided	
Independent consultants are included for comparison with competing products	- Pre-existing bias in the context of the company's culture, attitude, and values can be revealed - Independent consultants are needed because they are not biased by the companies' views	

Element	Description/Comments	Y/N
Environment and Context		
All end-user groups are included in the testing phase	- The behavior of end-users can only be reliably recorded if they test directly on the live system. Hidden behavior can thus be detected	
End-user groups have been evaluated	- End-user groups' behavior is monitored and evaluated from different perspectives (surveys, interviews, recording behavior, letting them explain what they do and think while testing)	
Consequences and intentions have been considered	- For what and with what intentions was the system created? - What is the worst thing that can happen in this algorithm if it starts interacting with others?	
Context is faithful to the source	- Does the current context represent the one, for which the system was created?	

Element	Description/Comments	Y/N
Constraints		
Business aspect reviewed	- Under what circumstances will the system be developed?	
Scope reviewed	- The requirements for the scope of the data set and the diversity are to be determined in the respective project	
Technical aspect reviewed	- Do technical constraints affect the way the system is designed?	
Legal aspect reviewed	- Do regulatory/law constraints affect the way the system is designed?	

Element	Description/Comments	Y/N
Input (Datasets)		
The data set is fully understood	- The meaning of each attribute is understood and its purpose in the system context is clear	
Data is transparent	- Data must be reliable, accurate, and kept up to date	
It is ensured that the data set represents the correct scope (enough data representing a population resp. a target group)	- Enough data and diversity are available - The requirements for the scope of the data set and the diversity are to be determined in the respective project.	
The source of the data is known and verified	- Unknown source of the data might lead to that the data is used in a context it was originally not intended to	
The quality of the data is ensured	- Data with low quality will cause even worse outputs since AI systems might reinforce errors in data sets	
It is clarified which attributes can legally be used	- Use of illegal attributes leads to a system becoming biased even though the attribute itself is not causing bias	

Element	Description/Comments	Y/N
Training Data		
The training data set is still as representative as the original data set	- Adjusting source data to training data can bear exclusion which needs to be prevented	
Added or omitted attributes are carefully chosen and justified	- One attribute can influence different areas in a system. Interconnectedness needs to be considered	

Element	Description/Comments	Y/N
Test Data		
Test data is independent	- The system uses test data it has never seen before	
Test data is defined	- Test scenarios are defined which are designed to detect bias that could be caused by a certain attribute	
Test data is reviewed	- Tests include omission and addition of attributes to test how system output changes	

Element	Description/Comments	Y/N
Project Management		
The project management process includes methods that focus on bias issues	- Stakeholder analysis is adjusted for disadvantaged group identification in the worst case	
Risks concerning bias are assessed and known to each team member	- Risk analysis is adjusted for additional focus on bias and worst-case scenarios provoking bias	
Critical thinking is promoted and demanded at every stage of the system creation process	- How would changes to a data point affect the model's prediction? - Does it perform differently for various groups? For example, historically marginalized people? - How diverse is the dataset I am testing my model on? - Is the system context the one the system was intended to? - Can the outcome/result/system recommendation be justified? - How diverse is the dataset I am testing my model on? - Does it perform differently for various groups–for example, historically marginalized people? - How would changes to a data point affect my model's prediction?	
Perspectives are changed continuously to challenge assumptions	- Different points of view ensure the identification of hidden assumptions	
Monitoring measures are defined, communicated, and applied	- End-user groups' behavior is monitored and evaluated from different perspectives (surveys, interviews, recording behavior, letting them explain what they do and think while testing)	
Auditing measures are defined, communicated, and applied	-	
Workshops/meetings are set frequently which address upcoming doubts of team members	- Critical thinking is continuously fostered in workshops and outside	
Scenario thinking is fostered	-	
Freedom of expression is guaranteed and desired	- Every input of any team member can reveal hidden bias	

Element	Description/Comments	Y/N
Hardware		
Hardware limitations	- Do hardware limitations exist?	
Influence on the creation process	- Do these limitations influence the system creation process?	
Influence on production environment	- Do these limitations influence the system's functionality in the production environment?	

Element	Description/Comments	Y/N
User Interface		
Visual aspects are determined appropriately	- The font style, font size, font color, and placement of text are justified and reflect the intention of the system's functionality - Colour, size, and placement of forms and graphics are justified and reflect the intention of the system's functionality	
Visual result	- Does visual result representation (alphabetically or random) make any difference (user always chooses the results displayed first?)	
Navigation	- Does a change in navigation representation lead the user to favor different results?	
Graphical User Interface	- Is graphical UI limiting/favoring data over other data?	
Language Aspects	- How do the chosen language influence the user's perception and interpretation in different contexts and circumstances? - Is a translation of data/information necessary? - Do the information and results become distorted through the application of translation? - How is the translation interpreted by the end-users?	
Alternative GUI	- The system features are changed, and end-users are monitored once more to see how their behavior changes - Several features may need to be changed various times to reveal hidden assumptions of end-users	

Element	Description/Comments	Y/N
Programming		
Code reviews take place	- Measures aim to understand adapted or reused code fully	
Independent code audits are conducted	- Independent audits foster considering the code from a different point of view and reveal unconscious assumptions	
Possible user behavior is analyzed beforehand to keep a learning system from adopting discriminatory behavior	- Thinking outside the box is fostered especially considering word and language usage in the system context - The system can handle discriminatory user behavior	

Element	Description/Comments	Y/N
Deliberate Bias		
Bias is identified and categorized	- Are the identified biases considered as good, neutral, or bad ones? - Is there any bias that was implemented on purpose to mitigate others?	
It is ensured that all the identified biases are monitored during the whole system creation process	- Bias needs to be tracked and changes identified as well as recorded throughout every stage of the project	

Element	Description/Comments	Y/N
Documentation		
Availability of relevant information	- Traceability, justification, and business continuity is ensured	
Comprehensible documentation	- The language may only contain such a high degree of complexity and technical language that every project member understands it - Prevention of misunderstandings is ensured	
Documentation has been reviewed and approved	- The documentation needs to be reviewed by several project members and stakeholders	