

The background image is a vibrant, futuristic cityscape at night. It features a wide, dark road with white lane markings that recedes into the distance towards a bright, glowing horizon. The sky is filled with streaks of light in shades of purple, blue, and red, suggesting motion or data flow. In the background, a dense cluster of skyscrapers is illuminated with various colors, including blue, purple, and red. The overall atmosphere is one of high-tech innovation and forward momentum.

GSMA™

Step-by-Step Guide

How to progress through the GSMA Responsible AI Maturity Roadmap

September 2024

Step-by-Step Guide to Advancing Responsible AI Maturity

This guide is designed to help companies navigate the GSMA's Responsible AI Maturity Roadmap. It allows organisations to assess their current level of responsible AI maturity, identify areas for improvement, and align their responsible AI strategies with their ambitions across five key dimensions: Vision, Operating Model, Technical Controls, Third-party Ecosystem, and Change Management and Communications.

The guide begins by presenting four essential requirements for companies starting their Responsible AI journey, offering foundational recommendations and principles to establish responsible AI practices. It then provides detailed, actionable steps within each dimension and sub-dimension, helping companies incrementally advance from the foundational level of AI maturity to more evolved and advanced stages. By following this guide, companies can systematically implement Responsible AI principles in line with their AI ambitions, strengthen their AI governance, and foster a culture of ethical and responsible AI use.

This asset forms part of a selection of documents that will enable organisations to better understand and implement responsible AI practices. Please also see [The GSMA Responsible AI Maturity Roadmap](#) and [Best Practice Tools](#).

Starting on the RAI Maturity Journey

For organisations that are at the early stages of adopting AI, the below outlines the four essential components required to start on their Responsible AI journey. These initial steps provide the key foundations upon which organisations can build further to achieve the full Foundational level of Responsible AI maturity—and continue progressing beyond.



1.1 RAI principles

1. **Form an RAI working group:** Identify and assemble a small team of individuals (e.g., executive sponsors, RAI champion, legal counsel) within the organisation
2. **Research and draft RAI principles:** Review industry standards, guidelines, and best practices related to RAI (e.g., NIST, EU guidelines, telco-specific policies)
3. **Review and finalise RAI principles:** Circulate the draft among key stakeholders for feedback and incorporate their suggestions
4. **Publish the RAI principles:** Formally publish the RAI principles on the company's internal communication platforms (e.g., Intranet, emails)



2.3 Roles and responsibilities

1. **Identify key RAI roles:** Determine the essential roles required for implementing RAI (e.g., RAI experts, risk officers)
2. **Establish responsibilities:** Create detailed descriptions for each role, outlining their duties, decision-making authority, and reporting lines



2.6 RAI tooling solutions

1. **Create basic registry/registries template:** Develop simple Excel template(s) for documenting AI use cases, including fields for data, value, scope, ownership, costs, and risks
2. **Train team members on using use case registry/registries:** Conduct a training session for relevant team members on how to document and track AI use cases using registry/registries
3. **Populate the registry/registries with initial data:** Begin documenting existing AI use cases, ensuring all relevant details are captured



4.1 Third-party selection criteria and processes

1. **Develop RAI-specific criteria:** Create a list of RAI-specific criteria based on relevant regulations and RAI principles (e.g., data privacy, transparency, fairness, accountability)
2. **Incorporate RAI criteria into overall selection process and engage existing third-party partners:** Update overall third-party selection criteria to have RAI-specific criteria
3. **Training:** Conduct training sessions for the procurement team to ensure they understand and can apply these criteria



Dimension 1: **Vision**

Dimension 1: Vision

| | | MATURITY LEVEL | | |
|----------------|--|--|--|---|
| | | Foundational > Evolving | Evolving > Performing | Performing > Advanced |
| SUB-DIMENSIONS | 1.1 RAI principles | <ul style="list-style-type: none"> Formalise a communication plan to disseminate RAI principles across the organisation Create informational materials, plan workshops, and integrate RAI principles into existing training programmes | <ul style="list-style-type: none"> Expand on initial training efforts by creating detailed, structured training programmes and workshops that are strongly encouraged across the organisation Ensure all employees have access to materials on RAI principles through an internal knowledge portal or learning management system | <ul style="list-style-type: none"> Transition from optional to mandatory training programmes for all employees Ensure leadership models RAI principles in their actions Schedule periodic reviews of RAI principles and practices, and carry out regular updates to ensure they remain aligned with industry best practices and the organisation's vision |
| | 1.2 Executive sponsorship | <ul style="list-style-type: none"> Hold initial meetings and workshops with identified key stakeholders and executive sponsors to discuss the importance of RAI and its integration into organisational strategies | | <ul style="list-style-type: none"> Set up regular meetings, newsletters, and updates for key stakeholders and executive sponsors to keep them informed and engaged, ensuring transparent communications Encourage executives to actively participate in RAI initiatives, including attending meetings, providing feedback, allocating budget and championing RAI principles |
| | 1.3 Risk strategy (incl. risk appetite) | <ul style="list-style-type: none"> Form a dedicated team with the key stakeholders and conduct risk assessment workshops to identify potential AI/GenAI risks applicable to the organisation Use the insights to define a basic risk strategy and establish a preliminary risk appetite Ensure that the strategy is communicated and understood across the organisation | <ul style="list-style-type: none"> Finalise the risk appetite that outlines the types and levels of risk the organisation is willing to accept and ensure it is communicated and starting to be embedded into all levels of the organisation Develop a detailed risk strategy document that is integrated into all functions of the organisation | <ul style="list-style-type: none"> Ensure the risk strategy is fully aligned with the organisation's strategic goals by leveraging Key Risk Indicators (KRIs) and existing frameworks effectively Conduct regular reviews and updates of the risk appetite to reflect changes in the business environment and technological advancements |
| | 1.4 Regulatory alignment | <ul style="list-style-type: none"> Recognise the importance of legal and regulatory alignment (local and global) by identifying relevant laws and standards Begin aligning organisational processes with these requirements and document initial compliance efforts Create a dedicated team or role responsible for monitoring relevant laws, regulations, and industry standards | <ul style="list-style-type: none"> Implement a comprehensive compliance framework to ensure alignment with all applicable legal and regulatory requirements Ensure the interoperability between local regulations and broader regulations if operating in multiple geographies (as required) | <ul style="list-style-type: none"> Stay ahead of regulatory changes and global policies through continuous monitoring, engagement with legal experts, and internal audits Maintain an open dialogue and strong relationship with regulators and authorities to ensure AI use cases are compliant and used as intended (as applicable) |



Dimension 2: **Operating Model**

Dimension 2: Operating Model

| | | MATURITY LEVEL | | |
|----------------|---|---|---|---|
| | | Foundational > Evolving | Evolving > Performing | Performing > Advanced |
| SUB-DIMENSIONS | 2.1 Governance (oversight and decision-making) | <ul style="list-style-type: none"> • Create a formal AI governance committee tasked with overseeing RAI initiatives, defining roles and responsibilities, and ensuring accountability across departments | <ul style="list-style-type: none"> • Depending on the organisational structure, either amend existing governance forums to include AI governance or establish a dedicated AI governance forum | <ul style="list-style-type: none"> • Embed clear oversight and decision-making processes across different projects and departments with input from leadership • Implement accountability mechanisms, including regular reviews and updates |
| | 2.2 Processes for identifying, assessing and mitigating AI risks | <ul style="list-style-type: none"> • Build processes to manage AI risks, incorporating Key Risk Indicators (KRIs) and existing frameworks • Establish a process for prioritising AI use cases based on relevant dimensions and a risk-based approach (including risk type and severity) • Start categorising AI risks and develop risk taxonomy and profiles | <ul style="list-style-type: none"> • Fully integrate KRIs into risk management frameworks, ensuring they are applied across most AI use cases • Apply risk-based prioritisation to most AI use cases and ensure risks are identified across the risk taxonomy • Foster cross-team collaboration to refine risk profiles tailored to the organisation’s risk appetite | <ul style="list-style-type: none"> • Use tools (e.g., workflow tools) to automate processes for identifying and managing AI risks and ensure these processes are well-documented and prioritise business value • Continuously update the risk taxonomy, with detailed and granular risk profiles |
| | 2.3 Roles and responsibilities | <ul style="list-style-type: none"> • Develop job descriptions, identify and appoint individuals within their teams to key roles such as RAI champions, ethics officers, and RAI experts in some areas | <ul style="list-style-type: none"> • Ensure most roles and responsibilities are fully operational within their respective functions (e.g., RAI champions established in a complete business function) • (Optional) Consolidate resources, form a centralised data and AI team, define roles and responsibilities and ensure they have a clear mandate and support from leadership | <ul style="list-style-type: none"> • Ensure ownership is shared across the organisation with roles and responsibilities defined and documented • (Optional) Ensure the centralised team is managing and developing RAI talent, staffing RAI talent to teams, ensuring resources are available, and coordinating between departments |
| | 2.4 RAI talent | <ul style="list-style-type: none"> • Conduct a skills gap analysis to understand the skills required for RAI and develop a recruitment strategy to attract individuals with technical and ethical expertise • Provide training and upskilling opportunities to existing employees to bridge any skills gaps | | <ul style="list-style-type: none"> • Document every step of recruitment processes and focus on attracting, retaining, and upskilling top talent by partnering with educational institutions and professional organisations |

Dimension 2: Operating Model

| | | MATURITY LEVEL | | |
|----------------|------------------------------------|--|--|---|
| | | Foundational > Evolving | Evolving > Performing | Performing > Advanced |
| SUB-DIMENSIONS | 2.5 AI development protocol | <ul style="list-style-type: none"> Begin incorporating early risk management practices (e.g., documentation, customer testing, participatory design, “RAI by design” approach) into AI development process of pilot projects to gather feedback and improve AI initiatives Share initial success stories to build momentum and encourage broader adoption of these practices | <ul style="list-style-type: none"> Make sure early risk management practices are regularly followed in the AI development process across most use cases and systematically documented | <ul style="list-style-type: none"> Fully integrate AI development process with early risk management practices into the workflows for all use cases Ensure continuous feedback loops and iterative improvements consistently inform and enhance the development process |
| | 2.6 RAI tooling solutions | <ul style="list-style-type: none"> Start exploring tooling solutions for AI governance while use cases are being tracked through basic use case registry/registries | <ul style="list-style-type: none"> Establish AI governance platform (buy or build) and ensure it has essential functionalities such as workflow management and regulatory compliance management | <ul style="list-style-type: none"> Deploy the AI governance platform enterprise-wide and ensure integration of AI use case registry/registries into the platform |



Dimension 3: **Technical Controls**

Dimension 3: Technical Controls

| | | MATURITY LEVEL | | |
|----------------|---|--|---|--|
| | | Foundational > Evolving | Evolving > Performing | Performing > Advanced |
| SUB-DIMENSIONS | 3.1 Data management | <ul style="list-style-type: none"> Identify how data quality and trustworthiness can be maintained (e.g., data privacy practices, addressing sensitive variables such as race or ethnicity) Explore tools that can assist with data management (as required) | <ul style="list-style-type: none"> Implement data validation and cleansing protocols and conduct periodic assessments to ensure data integrity | <ul style="list-style-type: none"> Scale data validation and cleansing protocols and invest in tools (as required) to automate data quality checks and reduce manual interventions |
| | 3.2 Model risk management | <ul style="list-style-type: none"> Define the review process for different model types with details on scope, priorities and level of scrutiny Create a basic model inventory Develop preliminary methods for model development and validation with performance evaluations | <ul style="list-style-type: none"> Enhance the model inventory by defining the methodology to prioritise models by impact Standardise the methods for development with oversight and review mechanisms in place to manage risks Enhance validation procedures with advance techniques catered to different models Develop a scoring mechanism to identify and quantify risks for models | <ul style="list-style-type: none"> Continuously refine model prioritisation based on real-time data and implement continuous integration and deployment (CI/CD) for models Ensure proper usage of the open-source assets utilised As required, automate the oversight and review processes during the model lifecycle and implement real-time validation feedback loop Implement real-time risks aggregation and reporting (i.e., model risk assessment) |
| | 3.3 Control environment (incl. technical guardrails) | <ul style="list-style-type: none"> Establish initial technical controls such as access controls and firewalls to ensure regulatory compliance, aligning these controls with existing compliance framework Explore initial automation efforts for implementing and managing these controls Document and share the control implementation processes to maintain consistency | <ul style="list-style-type: none"> Establish control environment and refine technical guardrails for both models and systems, and invest in automation (as required) to streamline control processes and enhance efficiency | <ul style="list-style-type: none"> Integrate the control environment with monitoring systems to monitor compliance and detect any deviations Ensure AI projects are secured by an advanced guardrail system with automated and manual controls (including third-party controls) for each AI risk type |
| | 3.4 Monitoring and incident response | <ul style="list-style-type: none"> Identify key areas where monitoring is critical and start with manual efforts to monitor KRIs (e.g., through dashboards) Start developing incident response plan | <ul style="list-style-type: none"> Start developing automation efforts to monitor KRIs (in real-time, as required) to reduce manual efforts Establish incident response plans with basic escalation protocols and ensure they are documented and communicated across the organisation | <ul style="list-style-type: none"> Ensure monitoring of KRIs (in real-time, as required) covering relevant areas and leveraging human in/on the loop, as required Refine incident response plan for AI system failures, with regular drills and evaluations, and clear escalation protocols |



Dimension 4:
Third-party Ecosystem

Dimension 4: Third-party Ecosystem

| | | MATURITY LEVEL | | |
|----------------|---|---|---|---|
| | | Foundational > Evolving | Evolving > Performing | Performing > Advanced |
| SUB-DIMENSIONS | 4.1 Third-party selection criteria and processes | <ul style="list-style-type: none"> Improve and detail the existing criteria for selecting third-party partners Document and communicate these criteria internally to the procurement team | <ul style="list-style-type: none"> Regularly update the criteria to reflect evolving standards and best practices, and involve relevant stakeholders (e.g., legal, compliance, technical teams) to ensure coverage Ensure the criteria are applied in the overall selection process Require third-party partners to submit self-assessments on their RAI practices (e.g., internal training programmes in place for their employees) during the selection process (as required) Have a comprehensive view of the third-party ecosystem (e.g., database of third-party assessments and audits) | <ul style="list-style-type: none"> Work with the legal team to ensure all existing and future contracts include specific clauses related to RAI Conduct independent assessments or certifications to verify third-party claims about RAI practices |
| | 4.2 Third-party data management protocols | <ul style="list-style-type: none"> Start to develop formal protocols and guidelines for third-party data handling and management | <ul style="list-style-type: none"> Establish formal protocols and guidelines for third-party covering details aspects of data handling and management (e.g., data encryption, secure data transfer) | <ul style="list-style-type: none"> Conduct frequent evaluations of third-party data handling and management practices through questionnaires, audits, or certifications |
| | 4.3 Third-party monitoring, reporting and auditing | <ul style="list-style-type: none"> Develop and implement monitoring and auditing processes to oversee third-party activities Develop reporting mechanisms to provide visibility into third-party activities | <ul style="list-style-type: none"> Carry out audits of third-party partners at consistent intervals, particularly following version updates to third-party products Improve reporting mechanisms to provide periodic visibility into third-party activities | <ul style="list-style-type: none"> Implement continuous monitoring and auditing (in real-time, using tools as required) with immediate mitigation of identified third-party risks Ensure reporting offers transparent insights into third-party performance with timely interventions |



Dimension 5:
**Change Management
and Communications**

Dimension 5: Change Management and Communications

| | | MATURITY LEVEL | | |
|----------------|--|---|--|--|
| | | Foundational > Evolving | Evolving > Performing | Performing > Advanced |
| SUB-DIMENSIONS | 5.1 Training | <ul style="list-style-type: none"> Develop and offer basic RAI training programmes (e.g., online course) to address RAI principles and regulatory requirements to ensure ongoing support for continuous learning and development Monitor and evaluate the effectiveness of these training sessions to continuously improve them | <ul style="list-style-type: none"> Implement mandatory RAI role-specific training to key roles (e.g., RAI champions) with certification Develop role-specific training for all remaining roles with hands-on programmes for utilising RAI tools Promote continuous learning opportunities to keep employees informed and engaged with RAI principles | <ul style="list-style-type: none"> Implement comprehensive and mandatory RAI training and awareness programmes across the organisation with specialised modules for various roles Ensure these programmes are regularly updated to address emerging risks and regulatory changes Encourage mentorship in the organisation by leveraging the key roles to offer training in their respective domain of expertise to new hires or less experienced employees |
| | 5.2 Culture and change management | <ul style="list-style-type: none"> Build initial awareness and engagement around RAI principles through activities such as core team discussions and awareness campaigns Encourage employees to embrace RAI practices in their daily work Develop a change management strategy to facilitate the adoption of RAI principles across the organisation, ensuring alignment with organisational goals and objectives (Optional) Introduce initial incentives for RAI-related activities in some levels (e.g., senior leaders) | <ul style="list-style-type: none"> Continue to conduct regular awareness-building activities, such as workshops, to foster a culture that values RAI principles Establish change management supported by a dedicated team (integrated into broader AI change management as applicable), with efforts to integrate RAI practices into ongoing operations and decision-making processes (Optional) Link incentives to RAI-related OKRs/KRIs | <ul style="list-style-type: none"> Track norms and behaviours within the organisation (e.g., through surveys) to identify whether employees are able to identify, understand and act on potential AI risks Ensure change management is fully implemented, engaging and committing all employees to RAI practices (Optional) Implement structured incentives (tangible and intangible) across organisation for key roles to recognise and reward employees for their commitment to RAI practices |
| | 5.3 Communication | <ul style="list-style-type: none"> Regularly share essential information with key stakeholders and develop a basic feedback mechanism (e.g., a dedicated email address) for teams to use Begin establishing consistent communication cadences and feedback mechanisms to foster two-way communication | <ul style="list-style-type: none"> Utilise communities, town halls, and other forums to ensure consistent and timely dissemination of information across the organisation Ensure that all teams internally utilise the feedback mechanisms (as needed) | <ul style="list-style-type: none"> Establish transparent and proactive communication channels tailored to the needs of different stakeholders Maintain open feedback channels with internal and external stakeholders (e.g., customers and employees) (Optional) Participate in external forums and form alliances (e.g., academia, industry bodies) to set and shape industry standards |



For more information on the GSMA Responsible AI Roadmap visit our [website](#), watch the [video](#) or view [The GSMA Responsible AI Maturity Roadmap](#) and [Best Practice Tools](#) documents.

You can also access the online tool to determine your organisations Responsible AI Maturity level [here](#).