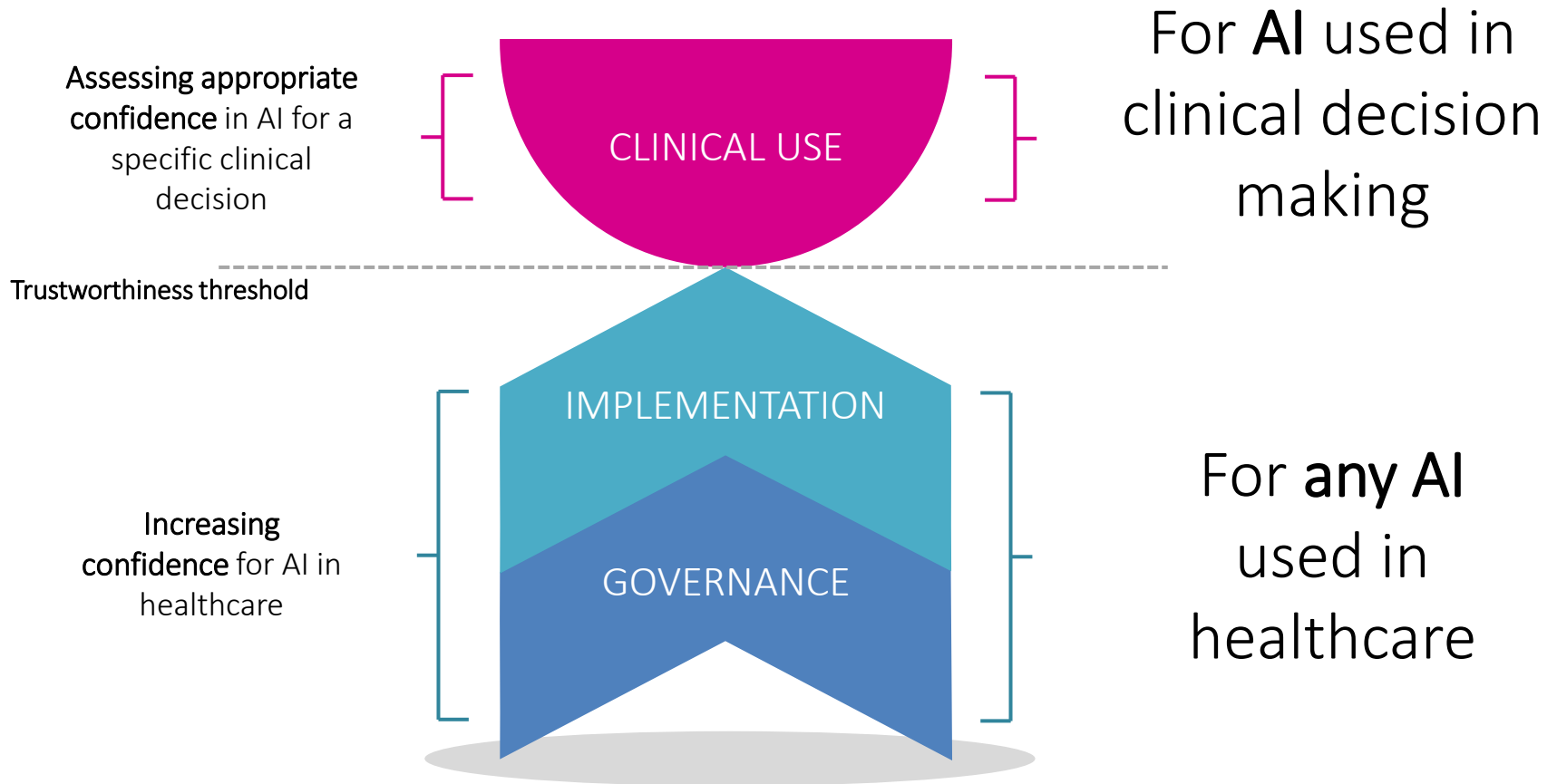**NHS**
Health Education England

Understanding healthcare workers' confidence in AI

AI confidence in healthcare: A framework

Assessing appropriate **confidence** in AI for a specific clinical decision

CLINICAL USE

For **AI** used in clinical decision making

Trustworthiness threshold

IMPLEMENTATION

Increasing confidence for AI in healthcare

GOVERNANCE

For **any AI** used in healthcare

Governance: The foundation of AI confidence

CLINICAL USE

Trustworthiness threshold

IMPLEMENTATION

GOVERNANCE

Increasing **confidence** for AI in healthcare

Confidence Factors

- Regulation and Standards
- Evaluation and validation
- Guidelines
- Liability
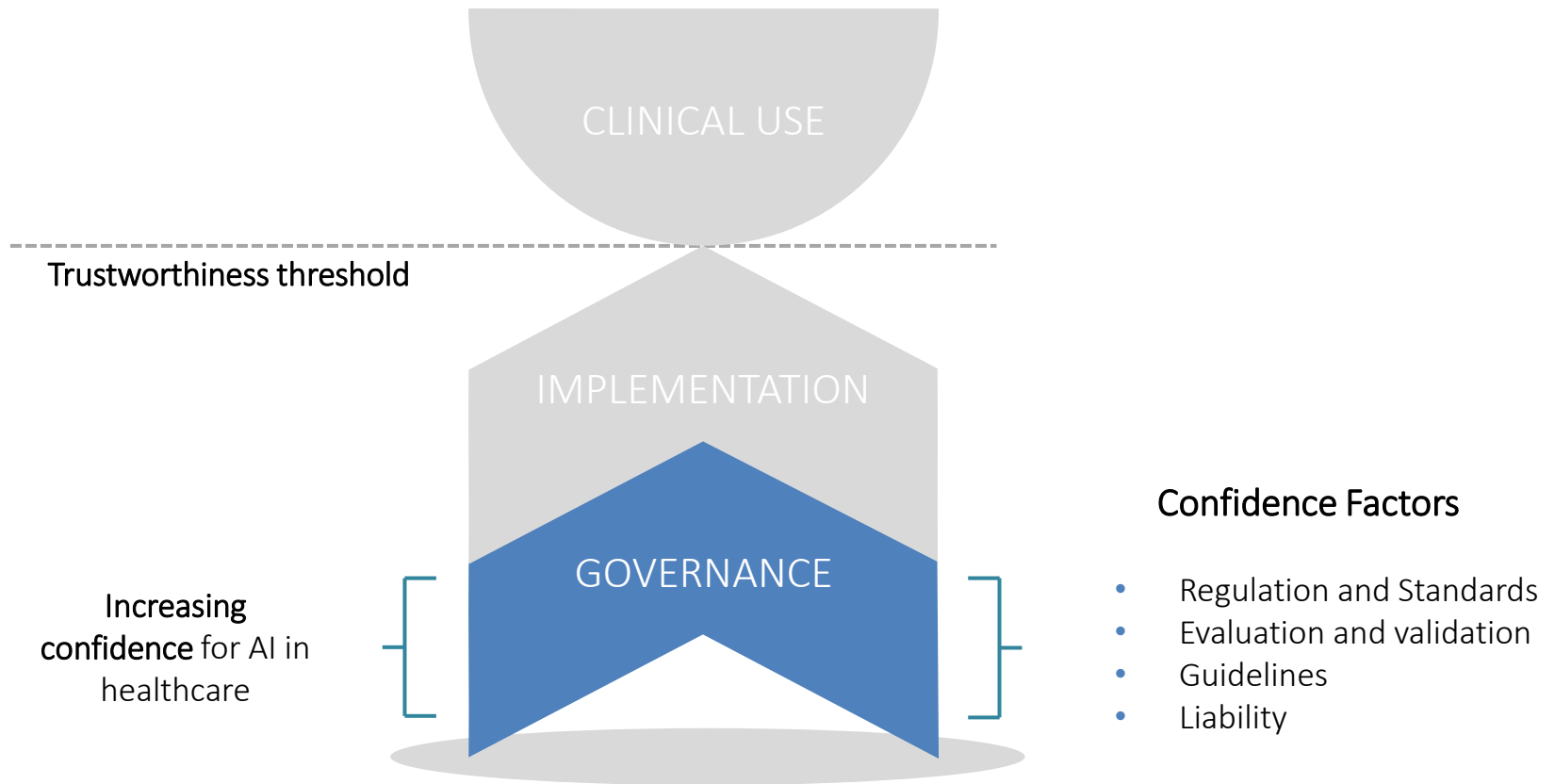
Governance: Actions for confidence in AI
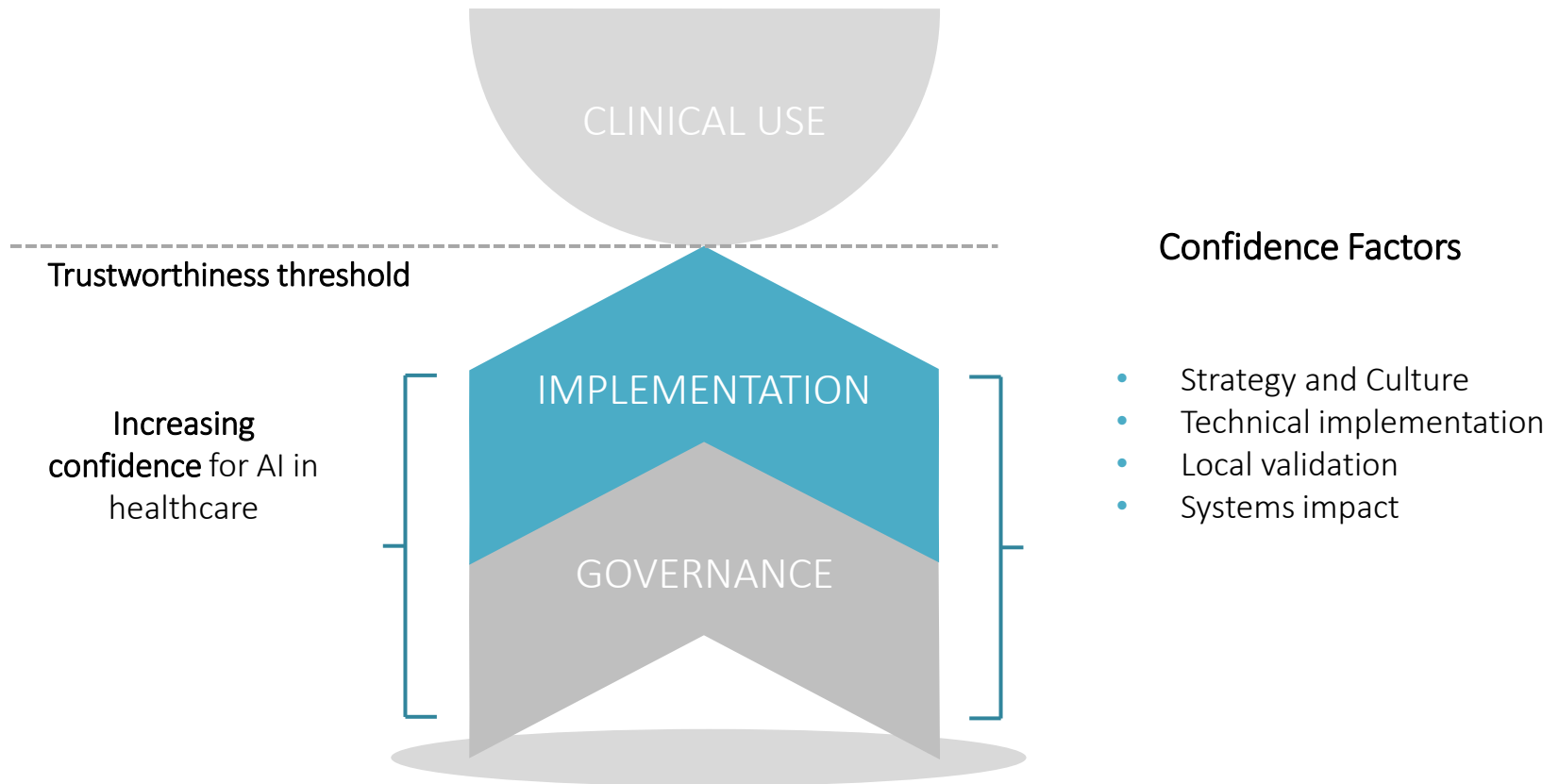
- Develop professional guidelines on creating, implementing and using AI for all clinical staff groups

- Continue development of regulatory frameworks for AI performance, quality and risk management

- Finalise formal requirements for evidence and validation of AI technologies

- Develop further guidance on liability for AI (including autonomous AI)

Governance: Actions (cont.)

- Establish flexible and dynamic process for developing clinical guidelines on AI-assisted clinical tasks and technologies

- Develop clear oversight and governance pathways for AI, including AI not classified as a medical device

- Develop standards for developing AI for health and care settings (including co-creation with users, model transparency and mitigation of model bias)

- Conduct further research to understand how certain AI model features influence confidence

Implementation: Building AI confidence

CLINICAL USE

Trustworthiness threshold

IMPLEMENTATION

Increasing **confidence** for AI in healthcare

GOVERNANCE

Confidence Factors

- Strategy and Culture
- Technical implementation
- Local validation
- Systems impact

Implementation: Actions for confidence in AI

- Develop further advice, guidelines and prototypes for information technology and governance

- Develop strategies and assign resources to encourage cultures that support innovation and robust appraisal of AI

- Collaboration and sharing of knowledge across NHS sites adopting AI technologies

- Develop and resource multi-disciplinary AI teams across clinical, technical, and administrative roles.

- Establish pathways for ongoing monitoring, performance feedback and safety event reporting involving AI technologies

Clinical Use: Assessing appropriate AI confidence

Assessing appropriate confidence in AI for a specific clinical decision

Trustworthiness threshold

CLINICAL USE

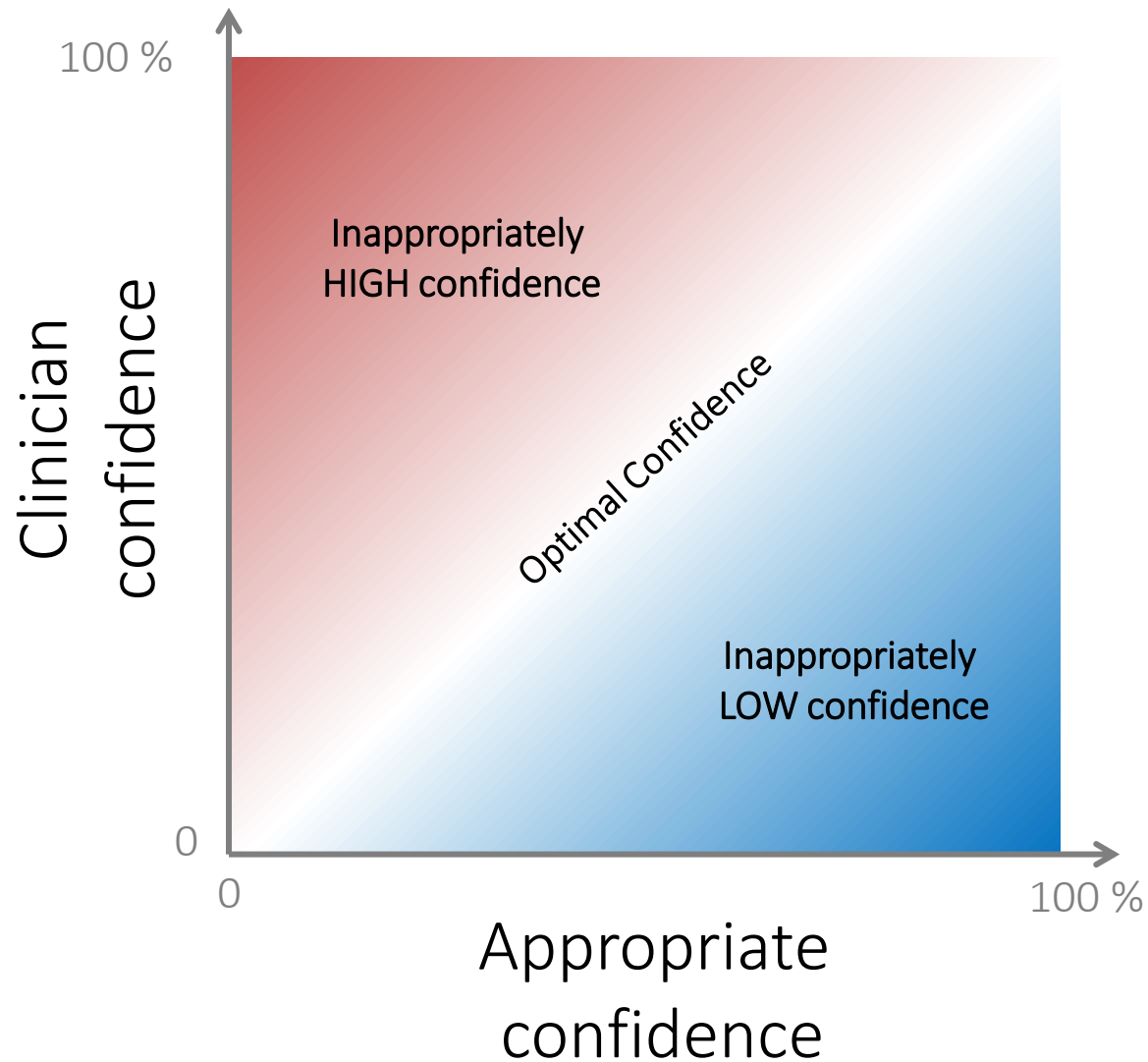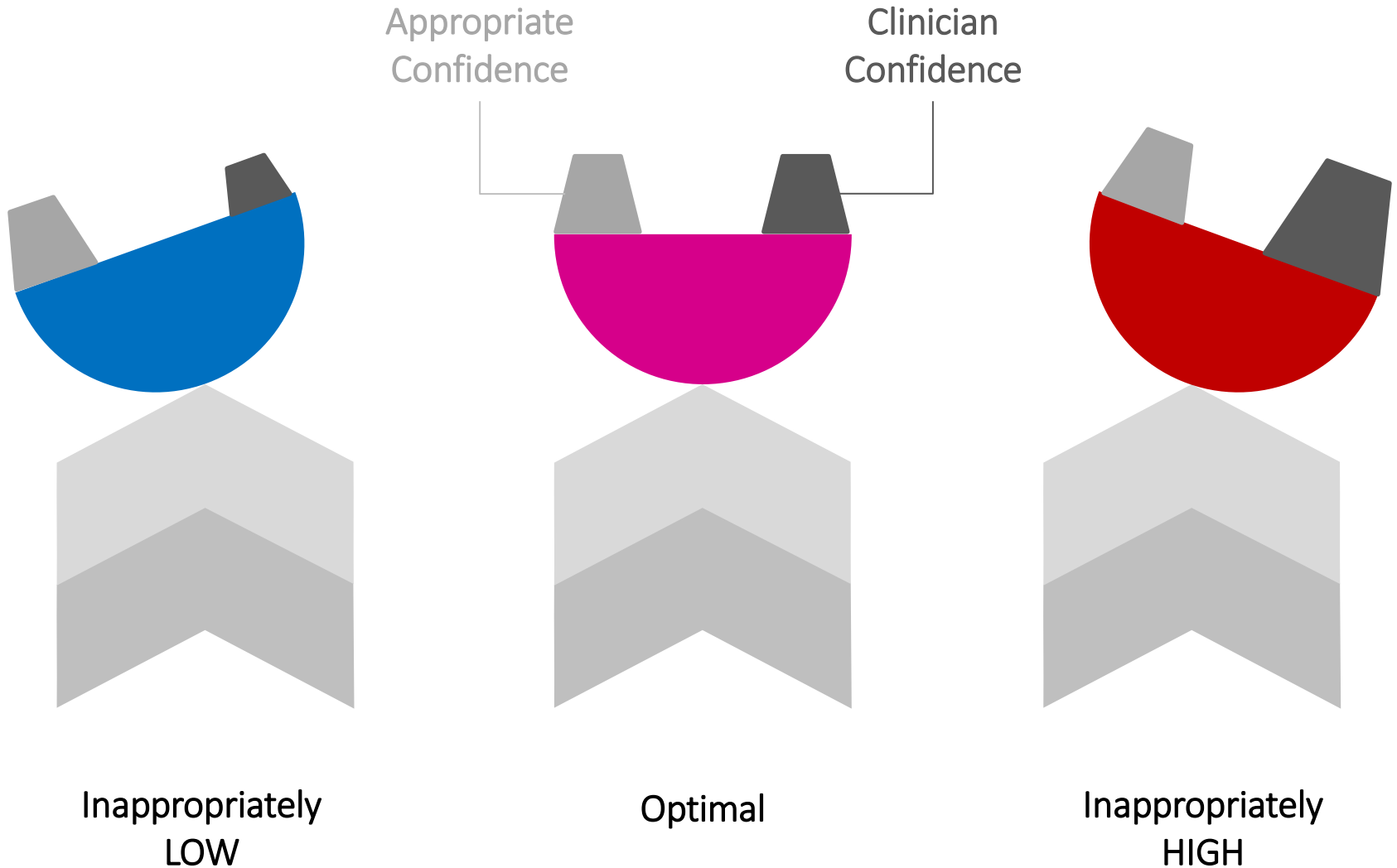IMPLEMENTATION

GOVERNANCE
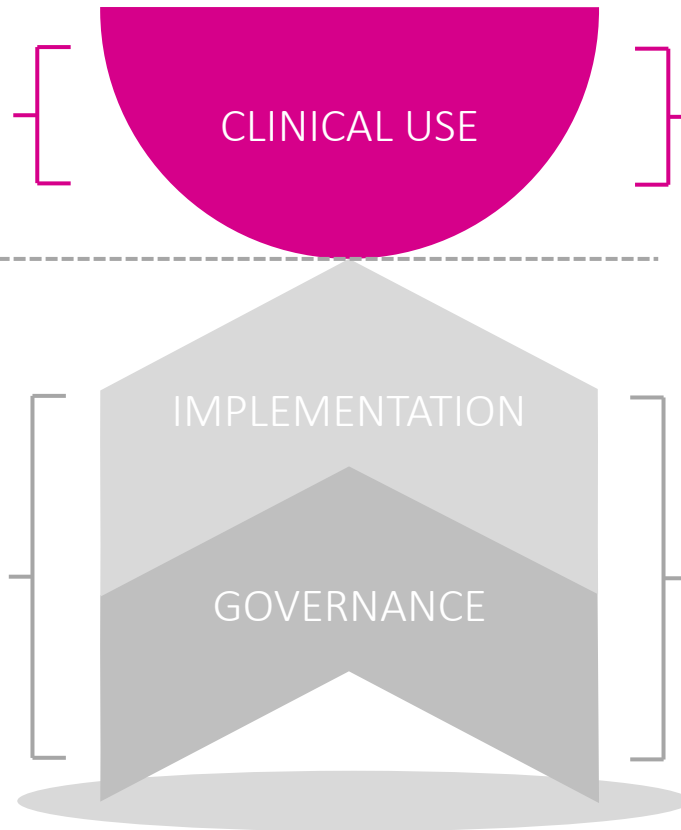
Confidence Factors

- Clinician attitudes
- Clinical context
- AI model design
- Workflow integration
- Cognitive biases

Clinical Use: Appropriate and optimal confidence

Clinical Use: Confidence in AI-derived information

Appropriate Confidence

Clinician Confidence

Inappropriately LOW

Optimal

Inappropriately HIGH

Clinical Use: Actions for confidence in AI

- Develop internal systems to record AI-assisted CRDM, including how AI has influenced or changed the decision

- Conduct further research on explainable AI and its safe use in clinical reasoning and decision making (CRDM)

- Conduct further research to understand and optimise presentation of AI-derived information for CRDM

- Develop confidence in AI technologies via patient engagement and education activities

- Enable clinicians to determine appropriate confidence in AI-derived information and balance it with conventional clinical information for CRDM