

TECHNICAL R&D CONSULTING

Focused computational R&D support for methodology development, validation strategy, independent technical review and complex engineering investigations.



METHODOLOGY

Develop robust computational methodologies and model strategies.



VALIDATION STRATEGY

Design verification, validation and sensitivity strategies aligned with engineering objectives.



INDEPENDENT REVIEW

Provide objective technical reviews and defensible, evidence-based recommendations.



INTEGRATED WORKFLOWS

Connect simulation, scientific computing, data/AI and validation into coherent R&D workflows.



RESEARCH TO ENGINEERING

Translate advanced methods into practical, repeatable and decision-oriented engineering solutions.



ENGINEERING JUDGMENT

Problem-focused technical insight.



TECHNICAL RIGOR

Methods and evidence you can defend.



INTEGRATED APPROACH

Simulation, data/AI and validation together.



DECISION SUPPORT

Actionable, clear and implementation-ready.



REPRODUCIBLE & TRANSPARENT

Documented, traceable and repeatable.

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**METHOD
DEVELOPMENT**



**VALIDATION
STRATEGY**



**INDEPENDENT
REVIEW**



**COMPLEX
WORKFLOWS**



**TECHNICAL
DEFENSIBILITY**



**ENGINEERING
IMPACT**

TYPICAL CLIENT CHALLENGES



A computational methodology is unclear, incomplete or difficult to defend technically.



A model strategy or validation plan needs independent review before implementation.



A complex numerical workflow requires structure, sequencing or integration across methods.



Research-grade computational methods need translation into a practical engineering workflow.



Technical reviewer or stakeholder comments require a defensible computational response supported by appropriate evidence.



A team needs specialist computational input without adding a permanent discipline internally.

SCOPE OF SUPPORT

Capability



**Computational
methodology**



Model strategy



**Verification &
validation planning**



**Independent technical
review**



**R&D workflow
development**



**Research-to-engineering
translation**

Typical support

Problem decomposition, method selection, modelling architecture, assumptions and evidence strategy.

Assessment of modelling alternatives, assumptions, numerical methods and implementation pathway.

Definition of verification, convergence, benchmark, sensitivity and validation evidence appropriate to the problem and available data.

Review of computational logic, numerical evidence, assumptions, limitations and technical defensibility.

Structured connection of simulation, scientific computing, data/AI and validation activities.

Adaptation of advanced methods into repeatable, decision-oriented engineering workflows.



**DEFINE
THE PROBLEM**



**REVIEW &
ANALYZE**



**EVALUATE
OPTIONS**



**RECOMMEND
STRATEGY**



**PLAN & VALIDATE
APPROACH**



**ENABLE CONFIDENT
DECISIONS**



ENGINEERING-FIRST
Solutions grounded in
engineering principles.



TECHNICALLY RIGOROUS
Evidence-based methods
you can defend.



REPRODUCIBLE
Transparent workflows and
traceable outcomes.



DECISION-RELEVANT
Actionable insight that supports
confident technical decisions.



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TYPICAL TECHNICAL WORKFLOW



TYPICAL DELIVERABLES

- Methodology or model-strategy memorandum.
- Computational workflow/architecture and implementation roadmap.
- Verification, validation, sensitivity and evidence plan.
- Independent technical review findings and prioritized recommendations.
- Supporting calculations, scripts or numerical evidence where explicitly scoped.
- Structured technical response to computational reviewer or stakeholder comments where legitimate, evidence-based and appropriate to scope.

TECHNICAL QUALITY FOCUS

- Engineering question and decision context defined before selecting methods.
- Methods selected for technical suitability rather than novelty alone.
- Verification, validation, sensitivity and evidence requirements made explicit.
- Assumptions, limitations, uncertainty and evidence gaps documented.
- Recommendations structured for implementation, repeatability and engineering use.

BEST SUITED FOR & TYPICAL INPUTS

Best suited for	Typical client inputs
Engineering organizations, R&D teams, consultants and technical professionals working on complex computational methods, validation strategies or multidisciplinary numerical investigations.	- Technical problem statement - Current methodology/model - Available data and evidence - Relevant standards, benchmarks or technical references - Reviewer/stakeholder comments where applicable - Required decision/deliverable - Constraints - Timeline

SCOPE BOUNDARIES & INTEGRITY

- AriyaTech provides legitimate technical and computational support; it **does not** fabricate data, results, validation evidence or research claims.
- Academic authorship, ghostwriting, guaranteed publication or misrepresentation of contribution is not part of the service.
- Regulated certification, legal opinions or licensed professional sign-off are outside scope unless separately and lawfully established.
- Implementation, full simulation development, extensive supporting analysis or software delivery is separately scoped when it exceeds the agreed consulting assignment.

REPRESENTATIVE TECHNICAL FOUNDATION



AriyaTech's technical foundation combines multidisciplinary engineering projects, collaborative research activity, numerical simulation, scientific computing, applied AI and direct technical leadership. Selected evidence and anonymized case studies can be provided where confidentiality and usage permissions allow.

START A TECHNICAL CONVERSATION

- Share the technical question, current methodology, available evidence and the decision or deliverable you need to strengthen.
- AriyaTech can assess the requirements and, where suitable, provide a clearly scoped R&D consulting proposal.