



TRI-LOTUS
— LICENSING —
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TECHNICAL PROCUREMENT CATALOGUE

Defined computational engineering & R&D work packages.

Clear scope, required inputs, expected outputs and project boundaries -
reviewed and quoted individually.

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HOW TO USE THIS CATALOGUE

Start with the technical question.

The packages below provide a practical starting point for discussion. Each assignment is reviewed for technical fit, available information, required outputs and exclusions before a quotation is issued.

Defined scope

The study boundary and decision to be supported are agreed before work begins.

Transparent evidence

Assumptions, model basis and appropriate sensitivity or convergence evidence accompany the results.

Clear limitations

Computational findings are not presented as physical certification, laboratory validation or statutory approval.

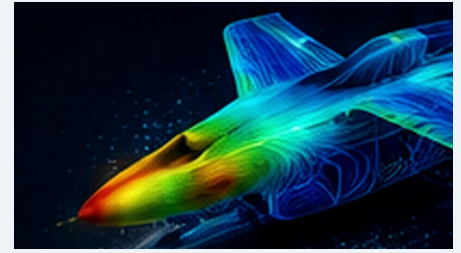
Quotation on request

Fees and delivery periods depend on the question, inputs, model complexity and required outputs.



TECHNICAL WORK PACKAGE

Multiphysics Product Qualification



Understand how a product behaves when fluid, thermal and structural effects interact.

QUOTATION AVAILABLE ON REQUEST

TYPICAL SCOPE

- One defined component, assembly or bounded subsystem
- Agreed operating and boundary conditions
- Coupled fluid, thermal and structural analysis as applicable
- Sensitivity and design variants where agreed

EXPECTED OUTPUTS

- Model basis and convergence evidence
- Pressure, velocity, temperature, stress and displacement fields
- Critical-margin and sensitivity assessment
- Ranked alternatives and technical report

INPUTS NORMALLY REQUIRED

- CAD, STEP, STL or equivalent geometry
- Materials and known properties
- Loads, pressures, temperatures and flow conditions
- Performance limits and relevant observations

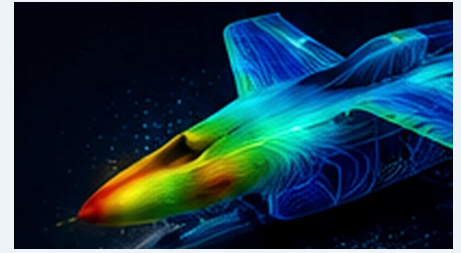
NOT INCLUDED UNLESS AGREED

- Physical testing or prototype manufacture
- Regulatory approval or stamped calculations
- Open-ended redesign or vendor management



TECHNICAL WORK PACKAGE

Thermal & Flow Optimisation



Find where thermal or hydraulic performance is being lost, then optimise it.

QUOTATION AVAILABLE ON REQUEST

TYPICAL SCOPE

- One fluid or thermal system or component
- Defined operating range
- Baseline CFD and thermal diagnosis
- Agreed geometry or operating variables

EXPECTED OUTPUTS

- Baseline flow and thermal model
- Pressure-drop and distribution assessment
- Temperature, velocity and heat-flux maps
- Comparative variants and optimised parameters

INPUTS NORMALLY REQUIRED

- Geometry and working fluid
- Flow, pressure and boundary conditions
- Thermal loads and material properties
- Packaging constraints and performance objective

NOT INCLUDED UNLESS AGREED

- Physical flow testing or prototype fabrication
- Site troubleshooting
- Stamped engineering certification



TECHNICAL WORK PACKAGE

Computational Materials & Process R&D



Reduce the experimental search space before committing laboratory and pilot resources.

QUOTATION AVAILABLE ON REQUEST

TYPICAL SCOPE

- Material, alloy, coating or interface screening
- Phase stability and process-window analysis
- Reaction, thermodynamic or transport studies
- Process optimisation and debottlenecking

EXPECTED OUTPUTS

- Candidate screening and ranking
- Atomistic or interface findings where relevant
- Phase and process-window assessment
- Sensitivity and recommended experimental priorities

INPUTS NORMALLY REQUIRED

- Target properties or R&D objective
- Candidate materials or chemical species
- Known experimental or process data
- Operating ranges, constraints and decision criteria

NOT INCLUDED UNLESS AGREED

- Wet-lab experimentation or synthesis
- Laboratory characterisation or regulatory testing
- Presenting computation as experimental validation



TECHNICAL WORK PACKAGE

Battery & BESS Optimisation



Size and operate storage around defined battery behaviour, project conditions and system objectives.

QUOTATION AVAILABLE ON REQUEST

TYPICAL SCOPE

- One project, site or load dataset
- Defined battery chemistry or candidate family
- Operating and degradation assumptions where supported
- BESS sizing, dispatch and project scenarios

EXPECTED OUTPUTS

- Battery operating model and usable envelope
- Recommended power and energy sizing
- Optimised dispatch and annual performance
- Economic sensitivity and recommended design basis

INPUTS NORMALLY REQUIRED

- Load and renewable-generation data
- Tariff and grid constraints
- Battery specifications and project life
- Financial and resilience assumptions where required

NOT INCLUDED UNLESS AGREED

- Battery procurement or EPC management
- Commissioning or warranty certification
- Fire-safety certification or utility approval



TECHNICAL WORK PACKAGE

Microgrid & Power-System Optimisation



Optimise distributed energy while respecting the electrical system within which it must operate.

QUOTATION AVAILABLE ON REQUEST

TYPICAL SCOPE

- One facility, campus or bounded network
- DER sizing and dispatch optimisation
- Load-flow and time-series analysis
- Contingency and resilience analysis where applicable

EXPECTED OUTPUTS

- Optimised DER architecture and sizing
- Dispatch strategy and energy balance
- Power flows, voltage profiles and equipment loading
- Contingency, sensitivity and robustness findings

INPUTS NORMALLY REQUIRED

- Load profiles and network data
- Transformer, feeder and line parameters
- Existing or proposed generation and storage
- Tariffs, grid restrictions and equipment ratings

NOT INCLUDED UNLESS AGREED

- Utility interconnection filings
- Statutory protection certification
- Field measurements or stamped studies



TECHNICAL WORK PACKAGE

Electronics, RF & Electromagnetic Qualification



Find electromagnetic, signal-integrity, parasitic and thermal risks before hardware reaches production.

QUOTATION AVAILABLE ON REQUEST

TYPICAL SCOPE

- One circuit, PCB, interconnect, antenna or RF subsystem
- Electromagnetic, circuit and thermal analysis as applicable
- Performance and tolerance assessment
- Agreed design alternatives

EXPECTED OUTPUTS

- S-parameters, fields and current-density results
- Parasitic and circuit-behaviour assessment
- Thermal findings where included
- Tolerance risks and qualification report

INPUTS NORMALLY REQUIRED

- Schematics, stack-up, layout or geometry
- Materials and component models
- Frequency range and operating conditions
- Performance limits and known observations

NOT INCLUDED UNLESS AGREED

- Physical EMC or compliance testing
- Prototype fabrication or laboratory measurements
- Regulatory certification



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REQUEST A QUOTATION

Share the question, inputs and required decision.

A useful initial brief states the technical objective, available geometry or data, operating conditions, known constraints, expected output and desired delivery period.

licensing@tri-lotus.com

licensing.tri-lotus.com