

Supplier Risk Evaluation

Risk Evaluation versus QMS Audit

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What is a Supplier Risk Evaluation?

- A Supplier Risk Evaluation (SRE) is an evaluation conducted by the JHU APL Space Department's Mission Assurance team in conjunction with project engineering, technical subject matter experts, and others as needed, to assess the level of risk to our current and future projects if they choose to utilize a particular supplier
 - It is the process used by which we “Approve” our suppliers
- The risk assessment is based on a combination of factors including (but not limited to) the supplier's:
 - Past Performance with JHU APL (if applicable)
 - Capabilities
 - Mission Assurance Activities/Quality Program
 - Experience level within the Aerospace or Space Flight Industry

Typical Areas of Focus...

- Risk focus areas typically include: (as applicable)
 - Key Quality Management System Elements/Processes
 - Facilities/Work Environment
 - Staffing/Training
 - Process Planning/Requirements Flow down
 - Inspection and Testing
 - Manufacturing Process Controls
 - Equipment for Manufacturing
 - Equipment for Quality Assurance
 - Special Process Control
 - Materials Control
 - Workmanship Control
 - Calibration of Measuring and Test Equipment
 - Supplier Management
- We leverage off of third-party registration to ISO9001 and AS9100 for processes such as corrective and preventive action, internal auditing, and management reviews

Risk-Based Evaluations...

- The process for assessing and “approving” suppliers is being based on specific project / product needs using various risk factors
 - Intensity of evaluations and reporting based on level of risk/cost to the project
 - QMS is an input, however, not all inclusive for assessing risk
 - Focus is on key risk areas to reduce the amount of time and attention needed to supplier processes that do not directly affect the output
 - Highlights areas of real or potential risk that may not typically be identified using a typical compliance view
- The evaluation first identifies if they are a Project-Based or Commodity-Based supplier
 - Project-Based suppliers live for each project and must be evaluated again by each future project
 - Example: System integrators, highly unique procurements, instrument, or major sub-assembly providers
 - Commodity-Based supplier live for multiple projects concurrently
 - Example: General machining suppliers, platers, distributors, raw material suppliers, PWA, PCB houses
 - Drives selection of SRE lead assignment (Project SMA versus Commodity SME SMA)

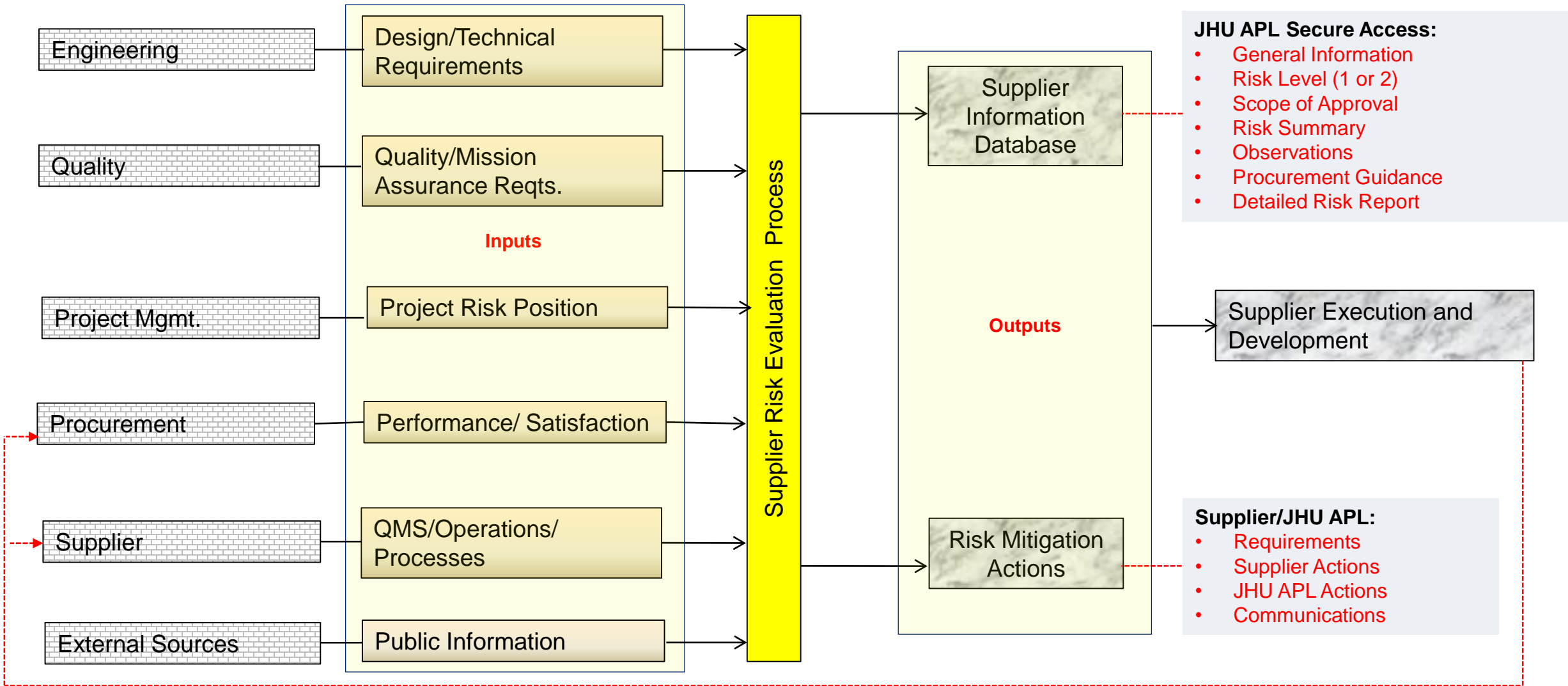
Risk-Based Evaluations...

- Risks are not “findings” but identified gaps between technical and/or contractual requirements against the “as-is” operations of the supplier
- Risk Baselines are typically provided from:
 - Engineering drawings/specifications/requirements
 - JHU APL contractual requirements
 - JHU APL QMS requirements
- Some identified risks are just informational (accepted risk) and are identified so they can be monitored or simply understood as an “as is” condition related to the supplier when doing business, others are either eliminated through corrective actions, or managed using a mitigation strategy agreed upon by APL and the supplier
 - Key strategy is to assure the supplier we are there to *understand* how they do business only, not to change it

Risk Baselines and Evaluation

- Risk Evaluation methodologies will vary but typically consist of one or a combination of, the following:
 - Site Visit
 - Teleconference/Webex Meeting
 - Website Research
 - Third-Party Registration (ISO, AS, NADCAP, etc.)
 - Awards
 - Videos, etc.
- The SRE results are then compared to the risk baselines to then determine risk results
 - Why is something identified as a risk? There is an identified gap from the baseline

SRE Input Areas and Outputs



What if a Risk is identified?

- Identifying a risk does not equate to a “bad” thing. If there is a risk, then there is something that both the supplier and JHU APL must work together on to monitor, mitigate, or eliminate.
- Each risk will be discussed and you will be provided with a detail explanation as to why we feel it is considered a risk item
- Risk items are *generally* items that need to be mitigated or can be eliminated by some type of action
 - Special procurement instructions
 - Procedural updates
 - Additional or revised process controls for JHU APL flight-related procurements
- Some risk items cannot be mitigated or eliminated, however, they must be known for project awareness
 - Staffing concerns
 - Cost prohibitive mitigations (example: facilities concerns)
- Keep in mind, we *may not* identify any risk items!

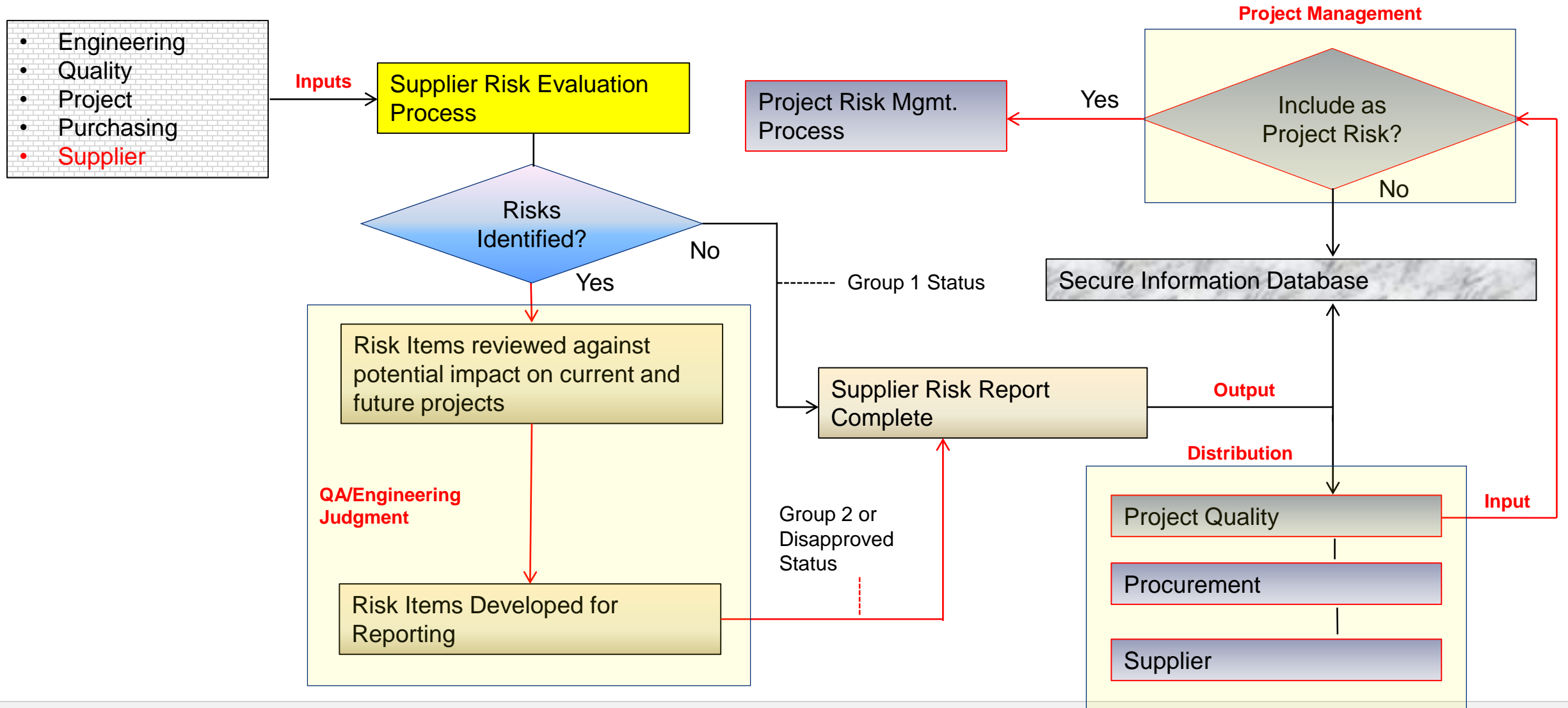
Risk Evaluation vs QMS Compliance

Key Reasons we choose Risk Evaluation over QMS auditing



	Risk Evaluation (Project / Product / Service Focused)	QMS/Compliance Based (ISO/AS Focused)
1	Focus is on technical and contractual requirements related to a specific scope of approval	Focus is on compliance to QMS which may overlook technical or contractual specifics (ex: calibration laboratory requirements missing)
2	Does not require “shall” statements to identify risk or initiate risk actions	Requires “shall” statements to initiate corrective actions
3	Evaluations are focused on key items needed for product, service or contractual compliance	Focus is more holistic to QMS elements
4	Typically one day on-site using 1-3 SMEs (lead by SMA)	Typically multi-day potentially executed by non-technical auditor(s)
5	Feedback viewed as valuable to project teams	Many times viewed as a required “checkbox” from QA
6	Feedback many times viewed as valuable to the supplier	Many times suppliers see multiple QMS audits using the same baseline “shall” statements being assessed in different ways
7	Provides the supplier an option to either address an issue or not	Audit “Findings” require corrective action

Supplier Risk Communications and Management





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