ISO9001:2015 / AS9100D

Quality Manual

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1. Introduction

This Quality Manual describes the policies and companywide control system of the PEI Genesis UK Ltd Quality Management System (QMS)

The QMS described in this manual meets the requirements of the ISO 9001:2015 and AS9100D international standards.

2. Context of the Organisation

PEI-Genesis is one of the world's fastest assemblers of precision connectors and cable assemblies. PEI partners with customers to provide engineered solutions that meet specific application requirements and then delivers with speed, service and consistent quality that is unmatched in the industry.

Proprietary automation in mirrored factories around the world allows PEI to assemble, from one of the largest inventories of electronic components, according to commercial, mil-spec and customer-specific requirements. PEI develops custom interconnect solutions that support the harsh environments of the aviation, energy, military, industrial, rail, and other sectors worldwide.

Over 70% of products sold are assembled to order. PEI provides a highly tailored solution shipped fast with a minimum order quantity of one piece. PEI-Genesis is also in the unique position of being the only value-add connector distributor with assembly facilities in North America, Europe and Asia.

With fast shipping and excellent, responsive service, PEI-Genesis provides access to the brands design engineers trust. PEI's line card includes the top global brands in the connector industry, including Amphenol, ITT Cannon, CINCH, Esterline/SOURIAU, Conesys, Lemo, Harting and TE Connectivity brands DEUTSCH, Raychem and Polamco.

Founded in 1946 by Murray Fisher and Bernie Bernbaum, PEI remains a family-owned company, steeped in the same traditions of innovation, integrity, teamwork, and delivery of excellence to its customers.

Information about external and internal issues affecting the organization's purpose and strategic direction are monitored by evaluating feedback from relevant interested parties (refer to section 3). Context shall be reviewed during Management Review and updated as needed based upon that feedback.

3. Relevant Interested Parties

PEI-Genesis has determined the following internal and external entities are interested parties relevant to the effective implementation of this Quality Management System: Customers, Owners, Board of Directors, Employees, Suppliers, Contractors, Export Control Organisation, Chamber of Commerce, HMRC, Business Solicitors/Accountants, and European Union Regulatory Bodies.

PEI-Genesis monitors and reviews information about these internal and external interested parties and the relevance of the impact of their requirements on the ability to provide conforming products and services. Records of customer, statutory, and/or regulatory information reviewed may be found in, but not limited to contract/order reviews, management reviews, customer communication(s), corrective actions, strategic business plan meetings, and risk analyses.

4. Quality Policy

The Quality Policy is reviewed for suitability and effectiveness by the Senior Management Team through Quality Management Review. Any and all changes are communicated to staff pertinent to the Southampton, UK facility.

The Quality Policy is communicated to all staff using the following methods:

- New Starter Orientation Packs
- Facility Notice Boards
- Online at OurPEI Wiki webpage
- Various strategic locations across the facility

5. Scope of Registration

ISO 9001:2015 / AS9100D
Distribution and Assembly of Connectors and Accessories,
Manufacture of Cable Assemblies

ISO9001 / AS9100D, Section 8.3 – Design and Development of Products and Services is not applicable to this Quality Management System. PEI-Genesis UK Ltd does not undertake any design activities and does not form part of the Scope of Registration.

The Scope of Registration does not vary between ISO 9001:2015 and AS9100 Rev. D standards.

For a List of Procedures required by the QMS, please refer to Appendix A of this Quality Manual.

6. Interaction of Processes

All ISO9001:2015 / AS9100D manufacturing processes are carried out at the Southampton UK, location. Sales, service and manufacturing processes are administrated by PEI Genesis. Related resources required by the QMS are made available to relevant functions at this location and are managed by authorised personnel to whatever extent necessary, appropriate for the scope of operations performed.

The Interaction of Processes required by the QMS is shown in Appendix B of this Quality Manual. This demonstrates the sequence and interaction of the processes required by this Quality Management System. Arrows are utilised to demonstrate the information flow through the business.

Appendix C breaks down each process in the form of a Turtle Diagram. These summarise the inputs, activities, outputs and Key Performance Indicators (KPIs). Review of the Turtle Diagrams takes place at least annually for applicability and currency.

Outsourced Processes
Outsourced processes required by the QMS are managed in accordance with the requirements described in the Purchasing Procedure (QP 008).
Outsourced processes required by the QMS may include, but are not limited to the following:

- Certain Production,
- Calibration,
- Transportation,
- Preventive Maintenance.

7. Leadership and Commitment

The top management of PEI-Genesis UK Ltd is committed to the continued compliance and improvement of an effective AS9100 Quality Management System. This commitment is demonstrated by:

- Taking accountability for the effectiveness of the Quality Management System.
- Communicating to the organization the importance of meeting all customer, regulatory, and legal requirements.
- Continuously monitoring the Quality Management System outputs and results to ensure customer satisfaction.
- Establishing and regularly reviewing the PEI-Genesis UK Ltd Quality Policy for total commitment to customer excellence and the associated quality objectives.
- Conducting regular Quality Management Reviews and ensuring that the resources required for the Quality Management System are available to enable the system to achieve its intended results.
- Identifying and acquisition of controls, processes, equipment, fixtures, resources, and skills need to achieve the required standards of this Quality Management System.
- Taking the appropriate action to ensure that the PEI-Genesis Quality Objectives meet their intended targets.
- Promote continuous improvement of the Quality Management System and its processes.

8. Ex Authorised Personnel

PEI-Genesis UK Ltd is a Value-Added Distributor that operates to a multitude of industries, including those that require the use of Ex Products. As such, it is the responsibility of PEI-Genesis UK Ltd to appoint Ex Authorised Person(s) to ensure that any manufactured Ex product is done so in full accordance with its appropriate certificate and supporting technical documentation. Ex Products that are manufactured and distributed by PEI-Genesis should be done so in relation to the following standards:

- AS9100 Rev. D/ISO9001: Aerospace Quality Management System
- ISO/IEC 80079-34: Explosive Atmospheres – Part 34: Application of quality systems for Ex product manufacture

The following roles have been appointed within the organisation as Ex Authorised Person(s) and it is the responsibility of the approved Ex Authorised Person(s) to support the ongoing co-ordination and management of activities with respect to the Ex product range. This should be in accordance with applicable clauses as outlined in ISO/IEC 80079-34.

- UK MR & Quality Compliance Manager (Ex Authorised)
- Industrial Engineering Manager (Ex Authorised)
- Product Manager (Ex Authorised)

The responsibilities of these roles in relation to ISO/IEC 80079-34 clause 5.3 & 8.4 requirements are outlined below:

Clause	Requirement	Responsible Person(s)
5.3 a)	The effective co-ordination of activities with respect to Ex Products;	Quality Compliance Manager
5.3 b)	The liaison with the issuer of the certificate (when not issued by the manufacturer) with respect to any proposed change to the design defined in the certificate and the technical documentation;	Quality Compliance Manager Product Manager Industrial Engineering Manager
5.3 c)	The liaison with the body responsible for the verification of the quality management system with respect to intended updating of the quality management system;	Quality Compliance Manager
5.3 d)	The authorization of initial approval and changes to related drawings, where appropriate;	Quality Compliance Manager Industrial Engineering Manager
5.3 e)	The authorization of concessions	Quality Compliance Manager
5.3 f)	The accuracy of relevant information regarding Ex Product given to the customer for any sales literature and installation instructions (which shall include applicable Specific Conditions of Use and any Schedule of Limitations);	Product Manager Quality Compliance Manager
5.3 g)	The effective coordination of manufacturing processes related to Ex Products including externally provided products, services and processes detailed in 8.4; In the case of a manufacturer with multiple manufacturing sites an Ex authorized person with relevant responsibilities shall be appointed for each site.	Industrial Engineering Manager Quality Compliance Manager
8.4 a)	While manufacture, test and final inspection may be sub-contracted, the responsibility for ensuring conformance with the certificate and the technical documentation shall not be sub-contracted	Industrial Engineering Manager Quality Compliance Manager
8.4 b)	External providers providing a product, process, or service that can affect the Ex Product's compliance with the certificate shall only be selected after an evaluation has provided evidence that they have the capability of ensuring compliance with all specified requirements	Quality Compliance Manager

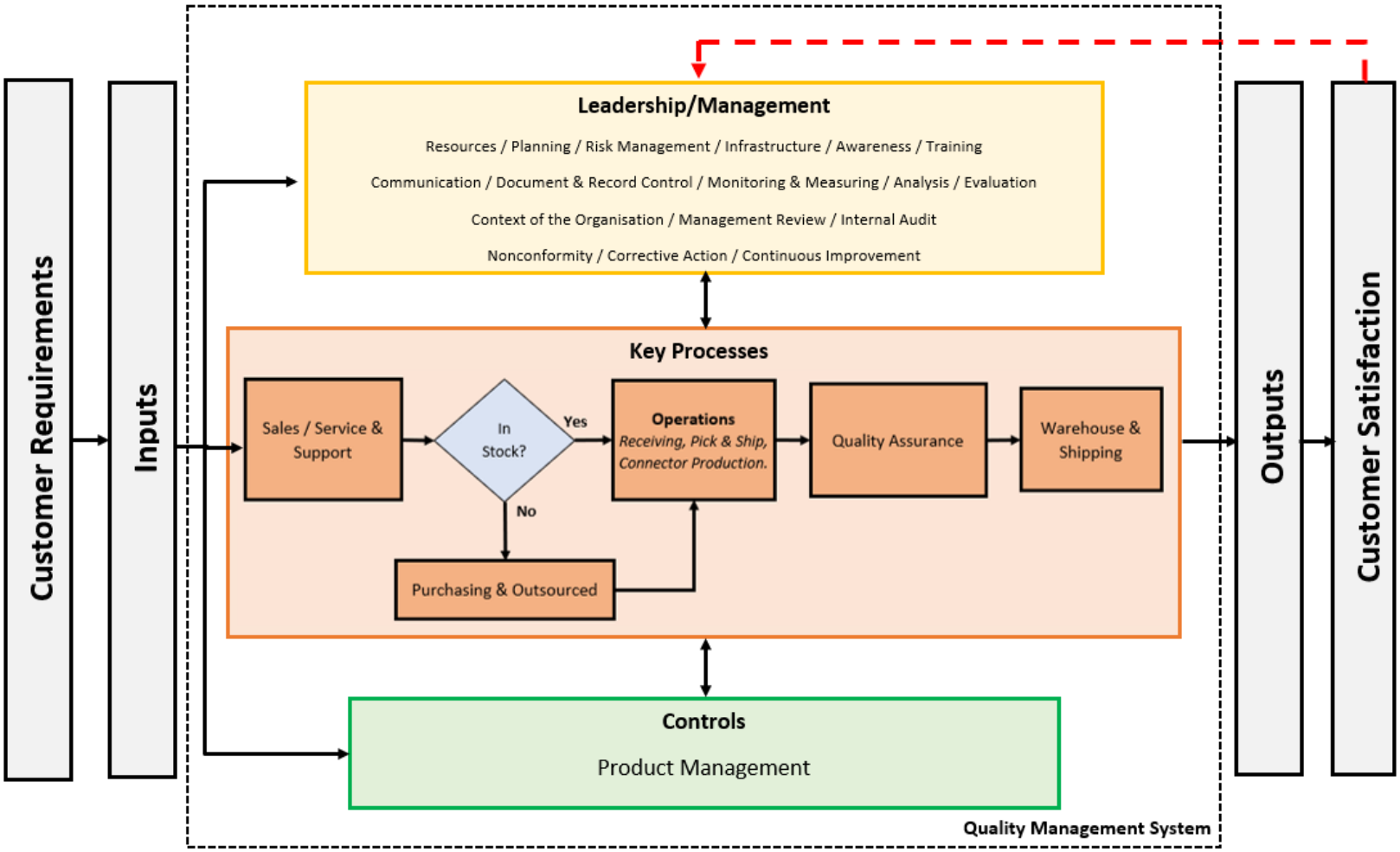
APPENDIX A

LIST OF PROCEDURES

SUPPORTING DOCUMENTATION	REFERENCE
Control of Documents	QP001
Control of Records	QP002
Management Review	QP003
Training	QP004
Sales and Service	QP006
Purchasing	QP008
Control of Monitoring and Measuring Equipment	QP009
Internal Audit	QP010
Control of Non-Conforming Product	QP011
Corrective Action	QP012
Preventive Action	QP013
Planning of Product Realisation	QP014
Risks and Opportunities	QP015
Quality Objectives	QP016
Counterfeit Prevention Plan	QP017

APPENDIX B

INTERACTION OF PROCESSES



APPENDIX C – PROCESS TURTLE DIAGRAMS

Process Turtle Diagram – Sales/Service and Support

Process Owners:
Meriel Grubb, Nicolas Dolmazon & Simcha Frimer

EQUIPMENT & FACILITIES:
Computers / Telephones
Internet Access
ASW – ERP System
Data Analysis

PERSONNEL:
Regional European Sales Directors
Head of European ADG (UK/RD)
Inside Sales Managers
Country Sales Managers
Inside Salespeople
Outside Salespeople
European Sales Analyst
Sales Support

PROCESS INPUTS:
- Manufacturer (OEM) Referrals
- Customer Requirements
- Outside Sales
- Application Engineering

PROCESS ACTIVITIES:
- Issuance of Quotes to Customer
- Contract Review
- Provide Information to Customer
- Ensure adherence to Compliance Requirements

PROCESS OUPUTS:
- Quotation to Customer
- Contract Acceptance
- Planning/Requirement Change Acceptance

INSTRUCTIONS & PROCEDURES:
QP006 – Sales and Service
DFSA009 – Contract Review Checklist
DFSA008 – Purchase Order Review Checklist
DFSA007 – Terms and Conditions (UK)
DFSA002 – Customer Satisfaction Survey (UK)
DFSA017 – Quotation Checklist
Sample of important documentation

KEY PERFORMANCE INDICATORS:

KPI	Target	Frequency
Sales % of Budget	≥ 95%	Monthly
GP % of Budget	≥ 95%	Monthly
Book/Bill Ratio	≥ 1.05%	Monthly
Sales Errors (lpm)	≤ 3000	Monthly
New Accounts	≥ 100	Monthly
New Opportunities	≥ 4	Monthly

Process Turtle Diagram – Purchasing

Process Owner: Shaun Findley

EQUIPMENT & FACILITIES:
Computers / Telephones
Internet Access
ASW – ERP System
Data Analysis

PERSONNEL:
Director – Process Owner & overall responsibility of Purchasing function
Senior Buyers – Responsible for managing high-value suppliers
Buyers – Responsible for managing a sub-set of suppliers by industry
Expedite Team Leader / Materials Planner – Responsible for strategic planning
Expediters – Responsible for driving urgent orders through the supply chain
Apprentice – Providing support to Purchasing team

PROCESS INPUTS:
- Customer Sales Orders
- Sales and Customer Service
- Sales Forecasting
- Customer Returns

PROCESS ACTIVITIES:
- Generating Purchase Orders – Production Parts
- Use of ASW to order from Approved Suppliers
- Evaluating Supplier Performance

PROCESS OUPUTS:
- Purchase Order to an Approved Supplier
- Continuous Improvement of Supply Chain

INSTRUCTIONS & PROCEDURES:
QP008 – Purchasing Procedure
80.1.4.0 – PEI-Genesis Terms and Conditions (Purchase)
80.5.2.0 – Purchase Order Entry
80.5.4.0 – Expediting
80.6.1.0 – Inventory Periodic Routines & Forecast Tuning
ASL – Approved Supplier List

KEY PERFORMANCE INDICATORS:

KPI	Target	Frequency
Prod/Purch/IAE Errors	≤ 550	Monthly
Supplier Errors	≤ 2500	Monthly
Inventory Turns	≥ 2.8	Monthly
Supplier On-Time Delivery	≥ 88%	Monthly

Process Turtle Diagram – Operations

Process Owner: Mark Bailie

EQUIPMENT & FACILITIES:
- Ovens
- Gluing Machines
- Loaders
- Staking Machines
- Handheld devices (calibrated)
- Calibrated inspection equipment

PERSONNEL:
European Operations Manager
Production Supervisor, Engineering Manager, Facilities Manager
Receiving Team Leader, Process Engineers, Mechanical Engineer
Production Focal Point
Production Administrator, Consumable Buyers
Receiving Operators, Production Operators

PROCESS INPUTS:
- Received product from Suppliers
- Sales Orders → Work Order Requirements
  - *Pick & Ship Orders*
  - *Manufacturing Orders*

PROCESS ACTIVITIES:
- Process Pick & Ship Orders from Warehouse
- Assemble connectors based on Work Order demands and requirements
- Rework of internal rejects and RMAs

PROCESS OUPUTS:
- Conforming product delivered to shipping with all correct documentation

INSTRUCTIONS & PROCEDURES:
WIPR 001 – Printing a Work Order
WIPR 002 – Kitting a Work Order
DFPR 001 – Core Skills Training Log
DFPR 002 – Training Matrix
Various 'How2' Work Instructions
Sample of instructions and procedures

KEY PERFORMANCE INDICATORS:

KPI	Target	Frequency
Facility Promise Date (FPD)	≥ 98%	Monthly
Production Errors (lpm)	≤ 2000	Monthly
WH Errors (lpm)	≤ 2000	Monthly

Process Turtle Diagram – Quality Assurance

Process Owner: Lee Slater

EQUIPMENT & FACILITIES:
- Calibrated equipment
- Computers
- Inspection aids
- ASW – ERP System

PERSONNEL:
Quality Compliance Manager/MR
Quality Assurance Line Leader
Internal Quality Systems Auditor
Quality Assurance Technicians
Quality Customer Care: (Separate Reporting Structure)
Quality Customer Care Manager
Customer Quality Engineer
Customer Care Coordinators

PROCESS INPUTS:
- Customer, statutory and regulatory requirements
- Internal organisational requirements
- Requirements stipulated by ISO9001 / AS9100D

- Manufactured / Pick & Ship items from Operations

PROCESS ACTIVITIES:
- Responsible for all aspects of Aerospace Quality Management System
- Inspection of manufactured and Pick & Ship items
- First Article Inspection
- Investigation of complaints/RMAs
- Management Review data/facilitation
- Internal/external audit program and facilitation

PROCESS OUPUTS:
- Conforming of Aerospace Quality Management System and products to all customers and all internal, regulatory and statutory requirements.
- Aerospace Quality Management System implemented and complying with ISO 9001 / AS9100D requirements.

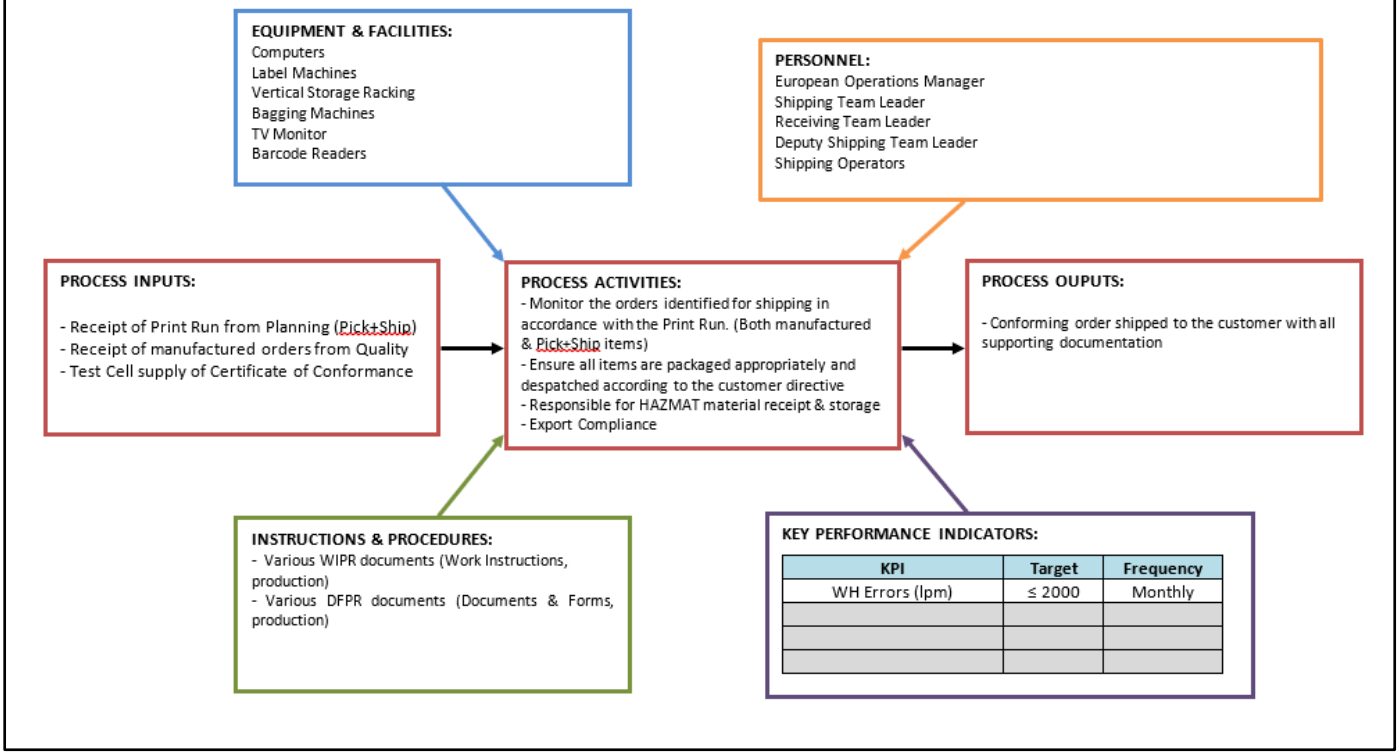
INSTRUCTIONS & PROCEDURES:
- Customer Quality Assurance Documentation
- ISO 9001: 2015 / AS9100 D standards
- PEI-Genesis Quality Manual – Europe
- PEI-Genesis Quality Management System
Procedures & Documents/Forms
- WIQA005 – Test Cell Work Instruction

KEY PERFORMANCE INDICATORS:

KPI	Target	Frequency
Production Errors	≤ 2000 lpm	Monthly

Process Turtle Diagram – Warehouse/Shipping

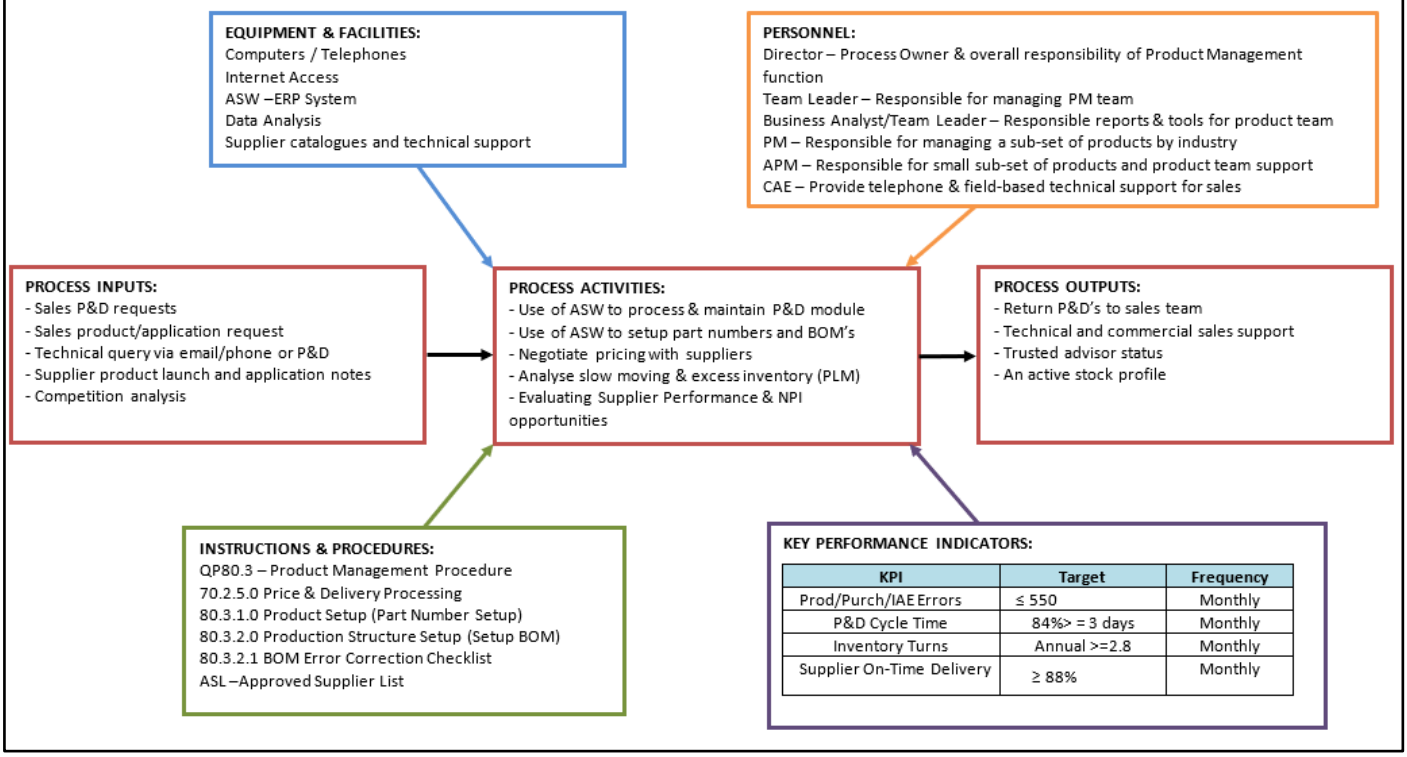
Process Owner: Joanne Williams / Mark Bailie



KPI	Target	Frequency
WH Errors (lpm)	≤ 2000	Monthly

Process Turtle Diagram – Product Management

Process Owner: Shaun Findley



KPI	Target	Frequency
Prod/Purch/IAE Errors	≤ 550	Monthly
P&D Cycle Time	84%> = 3 days	Monthly
Inventory Turns	Annual >=2.8	Monthly
Supplier On-Time Delivery	≥ 88%	Monthly

AMENDMENT RECORD

REVISION DATE	DESCRIPTION	APPROVAL
14 May 2014	First Release	H. Brind / S. Gold
29 Jan 2015	Modification to Scope of Registration (removal of Value Added) Addition of exclusion to 7.5.2	S Gold
10 June 2015	Added ISO 9001 reference to Section 5 Interaction of Processes Updated Appendices A and B	S Gold
28 July 2015	Outsourced Process removed from Appendix A Sales changed to Sales and Service on IOP Product Management changed to Planning of Product Realisation on IOP Purchasing changed to Purchasing and Outsourced on IOP Management Responsibility added to Resource Management	S Gold
28 Oct 2016	Changes to scope of registration, Post Delivery Support exclusion ISO 9001:2008 only (design & development)	S Gold
9 Jan 2016	Section4. Scope : Customer site “warranty” and/or “service” are not provided. PEI Genesis UK employ a “Returns (RMA)” procedure for field detected non conformities.	S Gold
12 Jan 2018	Rev D transition re-write	S Gold
29 March 2018	ISO Only added to Design within IOP	S Gold
29 March 2019	Conesys, Lemo Harting added to Para 2	S Gold
24 Feb 2020	• Section 2 – ESG and design para removed • Section 4 – Quality Policy review period and communication methods added. • Section 5 – Scope of Registration amended to reflect the removal of Design and alignment of ISO 9001 and AS9100 D scopes. • Section 6 – Further detail added regarding the interaction of key business processes. Addition of Appendix C, key process Turtle diagrams. • Appendix B – Updated to reflect current business process interactions • Appendix C – Turtle Diagrams created to breakdown each key business process.	L Slater
6 Aug 2020	• QP016 – Added to Appendix A • Appendix C – Purchasing & QA Turtle Diagrams updated.	L Slater

25 Aug 2020	• Any reference to 'Design' has been removed • Reference to QP007 has been removed • Section 5 – Statement of non-applicability entered for Design • Section 6 – Further detail added regarding the interaction of key business processes. • Appendix B – Updated • Appendix D & E – Introduced.	L Slater
8 Sept 2020	• Section 7 – Leadership and Commitment Added	L Slater
5 Nov 2020	• Section 8 – Ex Authorised Personnel added	L Slater
6 April 2021	• Sequence and Interaction of Processes updated to align with business strategy. • Turtle diagrams Appendix D & E removed • Appendix C – Product Management moved from Appendix E	L Slater
11 May 2021	• Personnel section on each Turtle Diagram amended to remove employee numbers	L Slater