
**Applications of statistical and related
methods to new technology and
product development process —**

**Part 5:
Solution strategy**

*Application des méthodes statistiques et des méthodes liées aux
nouvelles technologies et de développement de produit —*

Partie 5: Stratégie de solution



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Contents

	Page
Foreword	v
Introduction	vi
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Management summary	1
4.1 Basic concepts of QFD.....	1
4.2 Evolving classical QFD into modern QFD.....	2
4.2.1 General.....	2
4.2.2 Classical QFD.....	2
4.2.3 Comprehensive QFD.....	2
4.2.4 Matrix of matrices.....	3
4.2.5 Modern Blitz QFD®.....	3
4.2.6 German QFD Institute model.....	3
5 Integration of QFD and product development methods	4
5.1 QFD support for product development methods.....	4
5.2 Flow of solution development with QFD.....	4
5.2.1 Organization of the QFD flow.....	4
5.2.2 Flow charts of strategy and translation of VOC into engineering solutions and cost planning.....	4
6 Types of QFD projects	4
7 QFD team membership	4
7.1 QFD uses cross-functional teams.....	4
7.2 Core team membership.....	4
7.3 Subject matter experts.....	4
7.4 QFD team leadership.....	5
8 Seven management and planning tools	5
9 Translation of one information set into another	5
9.1 General.....	5
9.2 Maximum value table.....	6
9.2.1 General.....	6
9.2.2 Effect-to-cause diagram.....	6
9.2.3 Steps to make a maximum value table.....	7
9.2.4 Modern QFD.....	10
9.3 L-matrices.....	10
9.3.1 General.....	10
9.3.2 Entering information into L-matrices.....	11
9.3.3 Determining effect-to-cause relationships in a QFD L-matrix.....	11
9.3.4 Linking matrices.....	11
9.3.5 Comprehensive QFD.....	12
9.3.6 House of quality.....	12
9.3.7 Knowledge management.....	17
10 Transfer of prioritization and quantification from one information set into another	17
10.1 General.....	17
10.2 Transfer of prioritization.....	18
10.2.1 Quantify strength of relationships in the matrix.....	18
10.2.2 Weight the rows.....	19
10.2.3 Calculate the column weights.....	20
10.2.4 Distribution methods.....	21
10.3 Transfer of quantification.....	24

10.3.1	General.....	24
10.3.2	Quantify row information.....	24
10.3.3	Use relationship weights to connect row quantification to column quantification.....	25
10.3.4	Quantify column information.....	25
10.4	Transferring deployment sets by dimensions and levels.....	37
10.4.1	Deployment sets.....	37
10.4.2	Quality deployment.....	39
10.4.3	Technology deployment.....	44
10.4.4	Cost deployment.....	64
10.4.5	Reliability deployment.....	67
10.4.6	Lifestyle and emotional quality deployment.....	79
10.5	Transferring deployment sets by levels.....	79
10.5.1	General.....	79
10.5.2	Function deployment.....	79
10.5.3	New concept engineering and deployment.....	79
10.5.4	Parts deployment.....	79
10.5.5	Manufacturing and process deployments.....	79
10.5.6	Project work or task management.....	80
11	Design optimization.....	80
	Annex A (informative) Theory of Inventive Problem Solving (TRIZ).....	81
	Annex B (informative) Cross-reference between ISO 16355 and JIS Q 9025:2003(e).....	99
	Bibliography.....	123

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 69, *Applications of statistical methods*, Subcommittee SC 8, *Application of statistical and related methodology for new technology and product development*.

A list of all parts in the ISO 16355 series can be found on the ISO website.

Introduction

Quality Function Deployment (QFD) is a method to ensure customer or stakeholder satisfaction and value with new and existing products by designing in, from different levels and different perspectives, the requirements that are most important to the customer or stakeholder. These requirements can be well understood through the use of quantitative and non-quantitative tools and methods to improve confidence of the design and development phases that they are working on the right things. In addition to satisfaction with the product, QFD improves the process by which new products are developed.

Reported results of using QFD include improved customer satisfaction with products at time of launch, improved cross-functional communication, systematic and traceable design decisions, efficient use of resources, reduced rework, reduced time-to-market, lower life cycle cost, improved reputation of the organization among its customers or stakeholders.

This document demonstrates the dynamic nature of a customer-driven approach. Since its inception in 1966, QFD has broadened and deepened its methods and tools to respond to the changing business conditions of QFD users, their management, their customers, and their products. Those who have used older QFD models can find these improvements make QFD easier and faster to use. The methods and tools shown and referenced in the standard represent decades of improvements to QFD; the list is neither exhaustive nor exclusive. Users can consider the applicable methods and tools as suggestions, not requirements.

This document is descriptive and discusses current best practice, it is not prescriptive by requiring specific tools and methods.

Applications of statistical and related methods to new technology and product development process —

Part 5: Solution strategy

1 Scope

This document describes the process of developing a solution strategy for new products. Since organizations can address their new product development process by a customer-driven or a technology-driven set of solutions, this document explains both alternatives. It provides recommendations on the use of the applicable tools and methods, offering guidance on translating the voice of the customer (VOC) and voice of the stakeholder (VOS) into product, service, information, and process attributes, transferring the priorities of the customer and stakeholder needs into priorities for these attributes, and then developing technology, cost, and reliability plans for attributes.

Users of this document include all organization functions necessary to ensure customer satisfaction, including business planning, marketing, sales, research and development (R&D), engineering, information technology (IT), manufacturing, procurement, quality, production, service, packaging and logistics, support, testing, regulatory, and other phases in hardware, software, service, and system organizations.

2 Normative references

The following documents are referred to in text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 16355-1:2015, *Applications of statistical and related methods to new technology and product development process*

3 Terms and definitions

For the purpose of this document, the terms and definitions given in ISO 16355-1 apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

4 Management summary

4.1 Basic concepts of QFD

The basic concepts of QFD are referenced in ISO 16355-1:2015, Clause 4.