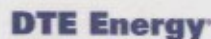
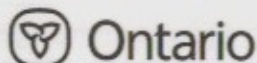


# PROJECT MANAGEMENT BEST PRACTICES

Achieving Global Excellence

JOHNSON  
CONTROLS  
Automotive Systems Group



Harold Kerzner, Ph.D.

# Contents

<b>1</b>	<b>UNDERSTANDING BEST PRACTICES</b>	<b>1</b>
1.0	Introduction	1
1.1	Project Management Best Practices: 1945–1960	1
1.2	Project Management Best Practices: 1960–1985	3
1.3	Project Management Best Practices: 1985–2006	6
1.4	Best Practices Process	11
1.5	Definition of a Best Practice	12
1.6	Strategic Best Practices	17
1.7	Sources of Best Practices	19
1.8	What to Do with a Best Practice	28
1.9	Critical Questions	29
1.10	Levels of Best Practices	30
1.11	Common Beliefs	32
1.12	Best Practices Library	33
1.13	Best Practices in Action: Satyam	36
1.14	Best Practices in Action: DFCU Financial	38
1.15	Best Practices in Action: Two Degrees	42
1.16	Halifax Community Health Systems	43
1.17	Best Practices in Action: DTE Energy	44
1.18	Best Practices in Action: Amontis	48
1.19	Best Practices in Action: Computer Associates (CA)	53
1.20	PM Elite: Best Practice in Software PM at Infosys	56

## **2 FROM BEST PRACTICE TO MIGRAINE HEADACHE 61**

- 2.0 Introduction 61
- 2.1 Good Intentions Becoming Migraines 61
- 2.2 Enterprise Project Management Methodology Migraine 63
- 2.3 Customer Satisfaction Migraine 63
- 2.4 Migraine Resulting from Responding to Changing Customer Requirements 64
- 2.5 Reporting Level of PMO Migraine 65
- 2.6 Cash Flow Dilemma Migraine 66
- 2.7 Scope Change Dilemma Migraine 67
- 2.8 Outsource or Not Migraine 67
- 2.9 Migraine of Determining When to Cancel a Project 68
- 2.10 Migraine of Providing Project Awards 68
- 2.11 Migraine from Having Wrong Culture in Place 69
- 2.12 Sources of Smaller Migraines 70
- 2.13 Ten Uglies of Projects 74

## **3 JOURNEY TO EXCELLENCE 83**

- 3.0 Introduction 83
- 3.1 The Light at the End of the Tunnel 85
- 3.2 Motorola 88
- 3.3 Texas Instruments 89
- 3.4 EDS 90
- 3.5 Exel Corporation 93
- 3.6 Hewlett-Packard 101
- 3.7 DTE Energy 104
- 3.8 Quixtar 105
- 3.9 Convergent Computing 108
- 3.10 KeyBank 110
- 3.11 Nortel 112
- 3.12 Halifax Community Health Systems 114
- 3.13 Avalon Power and Light 115
- 3.14 Roadway 116
- 3.15 Defcon Corporation 118
- 3.16 Kombs Engineering 119
- 3.17 Williams Machine Tool Company 120
- 3.18 Swagelok Company 121
- 3.17 City of Chandler, Arizona: Information Technology 122

## **4 PROJECT MANAGEMENT METHODOLOGIES 135**

- 4.0 Introduction 135
- 4.1 Excellence Defined 136

4.2	Recognizing the Need for Methodology Development	140
4.3	Critical Components	144
4.4	Project Management Tools	146
4.5	General Motors Powertrain Group	149
4.6	Ericsson Telecom AB	150
4.7	Nortel	153
4.8	Benefits of Standard Methodology	153
4.9	Sherwin-Williams	154
4.10	Antares Management Solutions	158
4.11	Westfield Group	160
4.12	Implementing Methodology	163
4.13	Ceridian	164
4.14	Overcoming Development and Implementation Barriers	167
4.15	QA	167
4.16	Exel	174
4.17	Halifax Community Health Systems	182
4.18	Orange Switzerland	185
4.19	Ontario Public Service	189
4.20	Convergent Computing	195
4.21	EDS	199
4.22	DTE Energy	201
4.23	Motorola	207
4.24	SAIC/RMA	208

## **5 INTEGRATED PROCESSES 213**

5.0	Introduction	213
5.1	Understanding Integrated Management Processes	213
5.2	Evolution of Complementary Project Management Processes	215
5.3	Convergent Computing	220
5.4	CIT	221
5.5	Total Quality Management	223
5.6	Concurrent Engineering	226
5.7	Risk Management	226
5.8	Boeing Aircraft	231
5.9	Interacting Risks: The Space Shuttle Columbia Disaster	232
5.10	Change Management	237
5.11	Other Management Processes	238
5.12	Johnson Controls	239
5.13	Visteon Corporation	246
5.14	Ford Motor Co. Electrical/Electronics Systems Engineering	250
5.15	Satyam Computer Services	259
5.16	EDS	268
5.17	Earned Value Measurement	269
5.18	DTE Energy	269
5.19	Halifax Community Health Systems	271

## **6 CULTURE 273**

- 6.0 Introduction 273
- 6.1 Creation of a Corporate Culture 274
- 6.2 Corporate Values 275
- 6.3 Types of Cultures 275
- 6.4 Corporate Cultures at Work 276
- 6.5 Anderson Development Company 279
- 6.6 Project Management and Culture 286
- 6.7 Orange Switzerland 288
- 6.8 Motorola 290
- 6.9 McElroy Translation 290
- 6.10 Halifax Community Health Systems 293
- 6.11 DTE Energy 294
- 6.12 EDS 294
- 6.13 Convergent Computing 295

## **7 MANAGEMENT SUPPORT 297**

- 7.0 Introduction 297
- 7.1 Visible Support from Senior Managers 297
- 7.2 Project Sponsorship 298
- 7.3 Excellence in Project Sponsorship 302
- 7.4 Empowerment of Project Managers 303
- 7.5 Management Support at Work 305
- 7.6 Motorola 307
- 7.7 DTE Energy 308
- 7.8 Halifax Community Health Systems 308

## **8 TRAINING AND EDUCATION 311**

- 8.0 Introduction 311
- 8.1 Training for Modern Process Management 311
- 8.2 International Institute for Learning 312
- 8.3 School of Project Management 316
- 8.4 Identifying Need for Training 318
- 8.5 Selecting Students 318
- 8.6 Fundamentals of Project Management Education 319
- 8.7 Designing Courses and Conducting Training 320
- 8.8 Measuring Return on Investment 322
- 8.9 Competency Models 323
- 8.10 Effective Training Programs 324

<b>9</b>	<b>INFORMAL PROJECT MANAGEMENT</b>	<b>327</b>
9.0	Introduction	327
9.1	Informal versus Formal Project Management	327
9.2	Trust	330
9.3	Communication	331
9.4	Cooperation	334
9.5	Teamwork	334
9.6	Color-Coded Status Reporting	335
9.7	Informal Project Management at Work	335
<b>10</b>	<b>BEHAVIORAL EXCELLENCE</b>	<b>337</b>
10.0	Introduction	337
10.1	Situational Leadership	337
10.2	Conflict Resolution	340
10.3	Staffing for Excellence	342
10.4	Virtual Project Teams	344
10.5	Rewarding Project Teams	346
10.6	Keys of Behavioral Excellence	349
10.7	Convergent Computing	353
10.8	EDS	354
10.9	Hartford	365
10.10	Symcor	359
<b>11</b>	<b>MEASURING RETURN ON INVESTMENT ON PROJECT MANAGEMENT TRAINING DOLLARS</b>	<b>363</b>
11.0	Introduction	363
11.1	Project Management Benefits	364
11.2	Growth of ROI Modeling	365
11.3	The ROI Model	366
11.4	Planning Life-Cycle Phase	368
11.5	Data Collection Life-Cycle Phase	370
11.6	Data Analysis Life-Cycle Phase	373
11.7	Reporting Life-Cycle Phase	377
11.8	Conclusions	378
<b>12</b>	<b>THE PROJECT OFFICE</b>	<b>379</b>
12.0	Introduction	379
12.1	Types of Project Offices	381
12.2	Universal Underwriters Group	381
12.3	Ceridian	382

12.4	Stonebridge Group	385
12.5	Motorola	386
12.6	DTE Energy	387
12.7	Halifax Community Health Systems	388
12.8	KeyBank	389
12.9	Satyam	389
12.10	Exel	394
12.11	Hewlett-Packard	397
12.12	EDS	400
12.13	Ameren	401

### **13 SIX SIGMA AND THE PROJECT MANAGEMENT OFFICE 409**

13.0	Introduction	409
13.1	Project Management–Six Sigma Relationship	409
13.2	Involving the PMO	411
13.3	Traditional versus Nontraditional Six Sigma	412
13.4	Understanding Six Sigma	415
13.5	Six Sigma Myths	417
13.6	Use of Assessments	419
13.7	Project Selection	422
13.8	Typical PMO Six Sigma Projects	424