The Business of Projects

The Business of Projects breaks new ground by showing how leading businesses create and implement projects to drive strategy and innovation. Projects are used to coordinate activities with customers and suppliers and ensure that organisations become more dynamic and adaptable. The book extends the resource-based view of the firm to focus on the business lessons learned from the design and production of high-value complex products and systems (CoPS) which have always been project-based. As well as new frameworks and management tools, it provides case studies of high-technology industries – such as telecommunications, flight simulation and medical devices – to show how projects are used to achieve strategic objectives, perform systems integration, organise productive activities, manage software, achieve organisational learning and deliver solutions for customers.

This book is essential reading for project professionals, academics, students, engineers, managers and policy makers seeking a business strategy and innovation management perspective on projects.

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The Business of Projects

Managing Innovation in Complex Products and Systems

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Foreword

The Business of Projects is a highly original book in what we have hitherto considered a crowded market.

Most books about projects deal with how to manage them 'from the inside' – what tools and techniques to apply in order to deliver the project 'on time, in budget, to scope'. This is the reality faced by many thousands of project management practitioners who are tasked with doing just this. Increasingly, however, it is being recognised that such an orientation has its limits: there are whole areas which typically are barely addressed in many if not most of the traditional project management texts. Much of the early project developmental work for example is barely discussed. The linkage with enterprise strategy is hardly covered (nor indeed is the whole subject of project strategy itself). There is often scant information on dealing with commercial issues such as procurement (which may even be treated as separate and distinct from project management) and contract management. Technology issues – requirements management, testing, information management and configuration management – may similarly be seen as somehow not part of project management. The hugely important area of people – perhaps *the* most important area of all – is generally poorly handled. Little encouragement may be given to thinking about the benefits that the project is to deliver, or how to measure them or how to optimise the value that the project represents.

These broader areas are progressively being chiselled away at, however. Gradually their role in the management of projects is being formalised. The 5th edition of the Association for Project Management's *Body of Knowledge* is perhaps a real milestone in this regard. This book is certainly a major contributor to this developing new view of the discipline.

But what Davies and Hobday have done is more than this: they have catapulted the subject into a new orbit. Davies and Hobday analyse the role of projects, and the actions of managers within them, from two

particular viewpoints: one is that of complex products and systems as a particular class of undertaking; the other is the role of projects in stimulating and effecting innovation. Their insights on both topics are many and telling. For example they lay the myth, so often asserted in the literature, that all projects are 'unique', pointing out that there are production routines in many projects. They show how projects are used in different ways strategically to adapt and innovate, as for example in their discussion on value-led strategies for diversification of project-based services. They develop a strategic perspective on how organisational learning can be project-led and, by skirting the traditional focus on learning about how to manage projects better, provide a new and thoroughly original contribution to the literature.

Indeed, a great strength of the book is its strong literature base: one of the real services it will give to scholars and to students is the way it so carefully and systematically summarises the relevant literature in each of its carefully organised chapters. In doing so, it becomes one of the few books in the business to bridge the gap between the disciplines of technology and social science; one of those rare scholarly treatises to be able to argue a managerialist viewpoint without sounding trite.

The chapters on systems integration and software projects are good examples. The historical overview on project management and systems integration is outstanding. The chapter on software is especially insightful, bringing out clearly the challenge of when and when *not* to apply project management rules (rational-soft project management) building on the work of Brown and Duguid and reminding us of the insights of Burns and Stalker. Too often advocates of project management promote tools and techniques while critics point out their apparent ineffectiveness, given the persistently high failure rate of projects generally, and IT projects in particular. Davies and Hobday's conclusion, which I believe to be correct, is that *both* the rational and the soft approaches are required. Crucially, they go on to underline the importance of personalities in getting this mixture right – something which, despite the increased recognition now given to 'people' factors – is almost entirely missing from the literature. As they say, 'it is the manner in which [rational processes] are created, valued, perceived and implemented which determines their usefulness or otherwise'.

There are limitations. Interestingly programmes and programme management, approaches already in the literature on innovation and now increasingly popular in the practitioner community, are less fully

explored. The perspective is very much one of suppliers (with bidding distinguished from project management, which the more holistic 'management of projects' view of the discipline would argue against). The broader client, or sponsor's, role, so important in projects and programs, is underplayed. But I don't doubt that these and other points will be addressed by Davies and Hobday and their colleagues at CoPS in future work as part of their on-going research agenda.

This is research of high calibre. Thoroughly grounded in the literature; based on solid empirical evidence; practical and intellectually coherent; suggesting fresh insights and new avenues.

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We would like to thank Jenny Newton in SPRU for preparing the manuscript and Katy Plowright for encouraging us to publish a book on the project business.

Glossary

1G	1st Generation – mobile communications systems technology
2G	2nd Generation – mobile communications systems technology
3G	3rd Generation – mobile communications systems technology
ABB	Global supplier of power and automation technologies, formerly ASEA Brown Boveri
ADA	A programming language created by the DoD, christened ADA in honour of Lady Ada Lovelace, daughter of Lord Byron and assistant to the mathematician Charles Babbage
AIM	Advise, Integrate and Manage
ANSER	Analytical Services Inc.
APL	Applied Physics Laboratory
AT&T	Global telecommunications operator, formerly American Telephone and Telegraph
BAA	Owner and operator of airports in the UK and abroad, formerly British Airports Authority
BAE	Systems International supplier of defence and aerospace systems, formerly British Aerospace Systems
BN	Business Networks – Cable & Wireless division
BP	International supplier of energy products and services, formerly British Petroleum
BSC	Base station controller
BT	Global telecommunications operator, formerly British Telecommunications
C&W	Cable & Wireless, a global telecommunications operator
CASE	Computer-aided software engineering
CCC	Concurrent Computer Corporation

CDMA	Code Division Multiple Access – mobile communications standard
CEO	Chief executive officer
CFU	Customer-facing unit
CMM	Capability Maturity Model
CoPS	Complex products and systems
DoD	Department of Defense
EPSRC	Engineering and Physical Sciences Research Council
ERP	Enterprise resource planning
ESRC	Economic and Social Research Council
ETL	Ericsson Telecommunication Limited
FMO	Functional matrix organisation
FOA	First Office Application
FORTRAN	FORmula TRANslation – high-level program language
GE	General Electric, a diversified, global supplier of products and services (e.g. aircraft engines, power generation, financial services, plastics and medical imaging)
GKN	Global supplier to the world's automotive and aerospace manufacturers (now only known as GKN)
GM	Global Markets (previously Business Networks), a division of Cable & Wireless
GMR	Giant magneto-resistive
GSK	GlaxoSmithKline, world leading research-based pharmaceutical company
GSM	Global System for Mobile communications – EU's 2G standard for mobile communications
GTE	Formerly a US telecommunications operator which merged with Bell Atlantic in 2000 to form Verizon Communications
HDD	Hard disk drive
HVAC	Heating, Ventilation, Air Conditioning, and Refrigeration
IBM	International Business Machines, a global supplier of advanced IT, including computer systems, software, storage systems and microelectronics.
ICBM	Intercontinental ballistic missile

ICE	In-Circuit Emulator
ICT	Information and communications technology
ICV	Internal corporate venturing
ILS	Integrated Logistics Support (standard SLIC-2B)
IMVP	International Motor Vehicle Programme
IP	Internet protocol
ISO	International Organisation for Standardisation – technical standards
IT	Information technology
KIBS	Knowledge-intensive business services
LG	Formerly Lucky-Goldstar, a major Korean electronics equipment supplier
MoD	Ministry of Defence
MIT	Massachusetts Institute of Technology
MITRE	Non-profit corporate organisation providing systems engineering and technical services to the US Federal government (not an acronym)
MNS	Managed network services
MR	Magnito-resistive
MRP	Manufacturing Resource Planning
MSA	Pseudonym given to worldwide corporate toolbook (name changed to protect confidentiality)
MSC	Mobile switching centre
MU	Market unit
NATS	National Air Traffic Services – provider of air traffic control services in the UK airspace and over the eastern part of the North Atlantic
NAVAIR	Naval Air Systems Command
NAVSEA	Naval Sea Systems Command
NMT	Nordic Mobile Telephone – 1G mobile communications standard
NPD	New product development
O2O	One-2-One – UK mobile phone operator, now part of T-Mobile
OECD	Organisation for Economic Cooperation and Development
OEM	Original equipment manufacturer
PBO	Project-based organisation

PCB	Project capability building
PDM	Product data management
PE	Project engineer
PERT	Program Evaluation and Review Technique
PFI	Private Finance Initiative
PLC	Product life cycle
PM	Project manager
PPP	Public–Private Partnership
PPR	Post-project review
PROPS	Ericsson's general model of project management (not an acronym)
R&D	Research and development
RBS	Radio base station
RBU	Regional business unit
RFP	Request for Proposal
SAIC	Formerly Science Applications Incorporated, now known as SAIC
SLA	Service level agreement
SLIC-2B	Systems and logistics integration capability
SME	Small and medium-sized enterprise
SPAWAR	Systems Center and the Naval Air Warfare Center
SPC	Statistical process control
SYNTEK	Founded in 1994, BMT Syntek Technologies Inc. is a technical and engineering professional services firm based in Arlington, Virginia, USA (SYNTEK is a wholly owned subsidiary of British Maritime Technology)
TQM	Total quality management
TRW	A global manufacturing and services company headquartered in Cleveland, Ohio, USA (originally Thompson Ramo Wooldridge, today TRW Inc.)
TS4i	Total Solutions for Industry
TT&S	Thales Training and Simulation, a business group of Thales, a global electronics supplier serving aerospace, defence and IT markets
WBS	Work Breakdown Structure