Chapter 1
Facilitating the use of Intellectual Capital in a Matrix Multinational Organization

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ABSTRACT
This chapter looks at the issues surrounding how to encourage the generation and manage the use of innovation within the organizational environment of being a flat, matrix-shaped, international services contractor. The influence of organizational structure on communication and trust is examined in comparison to traditional hierarchical-shaped organizations. The importance of organizational strategy, particularly in terms of how that strategy is communicated and how to manage when events disrupt that strategy, are looked at in detail. Organizational culture can rest on some more heavily than on others; how those responsible for sustaining and promoting a culture of innovation can be supported is the next layer analysis. Finally the skill sets required of managers are considered along with issues of motivation, influence and handling indirect sources of innovation. Illustrations of the issues and some solutions in action are taken from the company Production Services Network, (PSN) to build a bridge between academic theory and practical application.

INTRODUCTION
Two relatively modern concepts like intellectual capital (IC) and matrix multinational organization might sound like an ideal partnership. This chapter looks at the tensions and benefits within that partnership, and some ways of capitalizing on them. In knowledge-based industries, innovation – the creation of new knowledge – is essential for survival and growth. Facilitating innovation and managing the intellectual capital engendered along the way is a challenge, but when placed in the context of differing organizational structures, cultures and technological and economic trends, it may seem hard to know where to start. By looking at a service company, contracted to customers, in a matrix-shaped organization spread around the globe, this chapter addresses several layers of complexity.
and illustrates the points with examples from the company itself. The discussion moves from issues associated with the matrix structure, through the impact made by organisational strategy and how that strategy is communicated, to human factors and issues of organisational culture, before looking finally at the skills sets required by managers working within such organisations and attempting to meet strategic demands for greater facilitation of intellectual capital. To help the reader gain an understanding of the contextual setting of the chapter, some definitions of the terms used are given below.

**BACKGROUND**

**Definitions**

**Intellectual Capital**

The Delphi Group White Paper (2001), drawing upon the work of Edvinsson offers a useful definition, paraphrased as follows.

IC can be segmented into three sub-categories: Human Capital, Structural Capital and Customer Capital. Each of these can be considered as valuable assets of an organization in a rather similar way to that of ‘goodwill’ on that organization’s balance sheet. Human Capital is the organization’s ‘know-how’, Structural Capital may be considered as the organizations systems or work processes, and Customer Capital as its relationship with its customers.

**Matrix Organization**

The matrix organizational model is one in which most individual knowledge workers have dual lines of reporting. On the one hand they are responsible to a business manager or team leader for the delivery of work activities, whilst on the other are responsible to a discipline or functional chief in terms of their work methods and competency improvement plans. It is often convenient to display this structure as a matrix of rows and columns. (Fig. 1)

**Oil Major**

Oil major is the industry term for the larger oil and gas operating companies, e.g. Shell, BP, Exxon and the like. These operate on a global scale and include both national and international organizations. A useful description of the development of the oil majors can be found in Yergin (1991). To the oil and gas support industry these are the customers.

**Function / Discipline Chief**

Function / discipline chiefs lead cross project assignment personnel from a function or discipline point of view. They are the guardians of competency levels, ‘owners’ of business procedures, and where appropriate are also technical authorities in their respective fields. For example, in the oil and gas industry, such professional disciplines will include chemical process, structural, electrical, safety and environmental engineering, and also the supporting functions such as project management, planning, cost control and so on.

**Project Assignment Team manager**

Project assignment team managers lead their respective teams, which vary in terms of personnel numbers and skills set mix depending upon the work required. These managers are responsible for sound leadership of their team, and accountable to senior management for the delivery of service to the customer.

**Project Assignment Team**

A project assignment team is the industry term used to describe a group of people with a wide variety of skill sets dedicated or assigned to sup-