WHICH KEY CHARACTERISTICS OF GRADUATES WILL A TECHNOLOGY COMPANY LOOK FOR?

Stein B Jensen¹, George McHenry², Jørn Lunde³, Jon Rysst⁴, and Elisabeth Harstad⁵

Abstract ¾As a knowledge and technology based company, Det Norske Veritas is highly dependent on attracting top technological talents within its core technologies. Such talents shall not only be able to demonstrate theoretical knowledge, but also be able to see their capabilities within a wider context – how their expertise can be put to work to solve the practical problems of our customers. Equally important, willingness to develop skill sets beyond pure technology will be needed. This will be a prerequisite for career development within a company like DNV. This article discusses some of the skills DNV has defined as being important and consequently they represent characteristics we search for when assessing new graduates.

Index Terms: knowledge, skill sets, attitude and behaviour.

INTRODUCTION

Established in 1864, Det Norske Veritas (DNV) is an independent foundation working with the objective "to safeguard Life, Property and the Environment". Until 1970, DNV was a pure classification society providing ship classification services world wide. Since then the company has grown into other business and service areas, and today the key activities are ship classification, certification and consulting services.

DNV is authorised to act on the behalf of some 110 national maritime authorities, and has a market share of about 15 % of the world fleet GRT. DNV establishes Rules and Guidelines for the classification of ships, mobile offshore platforms and other floating marine structures.

DNV delivers management system, product, and personnel certification services respectively to a wide variety companies in the maritime, offshore and onshore industries. Within the area of quality management system certification alone, DNV has so far certified more than 30,200 companies.

Within consulting DNV provides a wide range of solutions within the areas of safety, quality and environment including business risk, specialist technical services and software solutions.

DNV has 5,400 permanent employees within a global network of 300 exclusive offices in 100 countries. Thus the

cultural diversity within DNV is significant, and poses challenges to the operation.

About 47% of employees have a university degree, and 2,4% have a Ph.D. degree. Nearly half of the staff is between 20 and 40 years old.

Internal Competence Development Schemes

All DNV practitioners find themselves occupying a specific function as e.g. project manager, line manager, engineer, surveyor, auditor, or consultant. A typical competence profile will include professional know how, ability to perform defined work processes, fluency in application of support tools, and last but not the least, skilled in developing and maintaining customer relations.

At the employment stage, our prerequisite is that candidates have acquired thorough knowledge within one or more core technical areas. However, DNV have established competence development schemes to provide employees with professional development opportunities within their field and at the same ensure that practitioners have the competence necessary to successfully deliver the services. The schemes are established to:

- contribute to company identity and attitudes in line with our policies
- provide basic company awareness, i.e. organisation, services, and procedures
- develop detailed technical knowledge and skills in applying our proprietary methods and tools
- develop understanding of principles and procedures related to standards, etc, of importance to the DNV services.

In our drive to attract and retain talented graduates, we aim to assure a life long competence development along two main career paths: management and technology. In addition to our competence schemes for technology practitioners, DNV has created a two pronged Manager Development Programme addressing line and project management.

THE COMPETENCE CHALLENGE

In a technology company, the recruitment of new employees represents a crucial activity in securing a sustainable

¹ Stein B. Jensen, Det Norske Veritas, N-1322Høvik, Norway, stein.bjornar.jensen@dnv.com

² George McHenry, Det Norske Veritas, N-1322 Høvik, Norway,

³ Jørn Lunde, Det Norske Veritas, N-1322 Høvik, Norway

⁴ Jon Rysst; Det Norske Veritas, N-1322 Høvik

⁵ Elisabeth Harstad, Det Norske Veritas, N-1322 Høvik

business. The competence that we are seeking consists of three different but equally important elements:

- **Knowledge**: this is the part of the competence equation that contains basic understanding within a specific discipline, (technical, managerial or administrative)
- **Skills**: this is the practical part of the competence equation. Skills are acquired through practice and specific training courses
- Attitude and behaviour: An individual's attitude is closely linked to their personality. This is generally more stable over time, but as an employer we are looking for desired behaviour as the visible output of the "soft" element in the equation.

As a result of this we "hire for attitude and train for knowledge and skills."

In an ever more competing situation, the challenge is to find and attract top talents and coax them to join the company. The pool of technology graduates is becoming smaller and especially within areas that constitutes the core competencies for DNV

PROFESSIONAL KNOWLEDGE AREAS

In our search for new graduates, we look first for people with profound knowledge of disciplines which are closely related to our core technologies. At the moment this would be the disciplines of materials technology and testing; risk and reliability, environmental technology, fluid dynamics, structural mechanics; machinery and propulsion; information technology, enterprise technology, and systems engineering.

Candidates should also demonstrate that they are able to place their subject knowledge within a wider context and have demonstrated that they are able to put theory into practise. Basically, we are looking for the well-informed young graduate who believes that the theories he or she possesses can be used for solving technology challenges.

Not only are we seeking new staff that has acquired the right bases of knowledge, but also that they possess certain skill sets and attitudes. Traditionally, we have focussed on the candidates that are able to demonstrate professional understanding. Only recently have skills and attitude become important for us in our selection processes.

SKILL SETS

The skill sets needs within a technology company may vary depending on the functional roles assumed by its practitioners. We have grouped these as follows:

- Consulting skills
- Communication skills
- Project performance skills
- Business/commercial skills

Consulting skills

When we have found those candidates that meet our professional knowledge requirements, we start to look for evidence of other skill sets. We need staff that understands the overall approach to gathering data and information and are able to handle this with efficiency. The ability to interpret data as well as demonstrated abilities in analytical problem solving will be needed in most functions within the company.

The increasing focus placed on our customers will put further requirements on our staff to enhance their capability to deliver the results and messages convincingly and distinctly.

Communication skills

High levels of communication, both written and verbal are needed. Graduates should demonstrate the ability to communicate effectively with colleagues and customers and to present results, ideas and opinions clearly and logically. Creating and composing text independently or with minimal guidance is important. Fluency in English, which is our corporate language and the "local" language is a requirement.

The listening skill is the vital element in most communication and is often underestimated: We like to see graduates that are able to:

- Demonstrate active listening and observation techniques
- Exhibit strong recording and note-taking skills
- Questioning techniques to verify understanding of work and task objectives.

The widespread use of new communication channels has dramatically changed the way communication is practised, e.g. the increased use (and misuse) of e-mails. New employees should be "cyberspace literate". They should know how to utilise, when to utilise and when not utilise the different "cyberspace" communication channels. It is fair to say that DNV experiences quite a few communication problems due to poor understanding of the challenges of the "cyberspace" communicating modes. In addition, we experience that information abundance is threatening effective operation.

Project performance skills

Most operations are organised as projects which put certain requirements on our staff:

- Task execution skills: being able to provide meaningful input to reports, take initiative and execute work in relation to plan or expectation, taking ownership and responsibility to complete and deliver assigned task, and feeding forward lessons learned.
- Time management skills: Understand time requirements and meet agreed deadlines, execute multiple work efforts efficiently and prioritise work based on importance.

• Flexibility and adaptability: Adjust appropriately to customer demands with a positive attitude. This includes working within different technical areas, with different customers, at different locations, and also under different administrative settings.

Business/commercial skills

There are some major areas that we will like to see our employees excel into, and currently we are focusing on Client Relationship and Market Development. Graduates, however, are expected to focus on developing their relational skills during their first years.

They should demonstrate the ability to build industry knowledge through reading or participating in industry events. Most important is the ability to build and maintain a productive relationship with customers and customer teams.

The relational skills model we are using is aimed at building and maintaining relational skills on several levels:

- Demonstrating professional knowledge to the customer
- Delivering according to specified needs
- Showing genuine interest in customers needs
- Building personal trust and tolerance
- Sharing personal interest and human support.

Embedded in the business skill set is the capability to manage and see the financial opportunities and meeting these goals during operation. However, our individual performance assessment system goes beyond the pure financial key performance indicators and includes the assessment of the preferred skills and behaviour based on results achieved according to goals set.

ATTITUDES AND BEHAVIOUR

The pace of change has increased over the years, and our ability to adapt to change becomes a valuable quality both for the individual as well as for the organisation. Such changes will not only affect the individual's organisational membership, but also the fields of expert skills that need to be developed. Thus, being inquisitive and willing to enter into new situations with an open mind, will be a positive personal characteristic.

Mobility

New employees are asked about their willingness to move to new locations. Mobility is not to be looked upon in black-or-white terms: "movable" or "not movable". In today's global market this concept should be viewed as a graduated scale and constantly reassessed because of changes in the personal circumstances of our staff as well as company opportunities. There might be different levels of company mobility needs and employee wishes, ranging from being "local, tied to my home base" to "global, accepting to move around where the company needs my expertise".

A key characteristic that we will seek in our top talents is a basic willingness to move around in our company, i.e.

change of location as well as rotation within a particular service / functional area.

Willingness to share knowledge

Many knowledge and technology companies such as DNV are going through a transformation phase towards establishing a learning organisation.

DNV aims at pursuing a Knowledge Management Strategy. We focus on the acquisition and dissemination of specific professional expertise. Without going into details on how we implement this strategy, the culture that we need to foster and which will be conducive to the success of the knowledge management strategy, is one of knowledge sharing, e.g. we share the lessons learned in projects by making these available to our colleagues.

Knowledge sharing is perhaps the most difficult culture to develop and implement, because it requires that the ubiquitous "knowledge is power" assumption be transformed into the one in which sharing is seen to be appreciated and rewarded. Graduates may see this as quite a change, at least those coming from the older and more traditional university environment where individual learning strategies are predominant.

Manage own personal development

We have learned from recent studies that only a small portion of the graduates expects to be more than three to five years with their first employer. This poses an extra challenge on the company to create work situations and professional development opportunities such that the young and talented graduates see a longer career path within the company. However, byalty is something that we cannot require, rather it is earned.

In our corporate values we have stated that "we create a working environment where people are challenged to do their best". By being challenged, we hope the talented and skilled practitioners stay within the company.

We firmly believe that we have an obligation to create challenges and development schemes that provide our newly employed graduates with opportunities to develop their own competencies. However, it is the individual who is ultimately responsible for her or his personal competence development in our organisation. This will require the individual to be investigative regarding own development, initiative taking, and having a view on own desired direction as seen within the context of the strategy for the company.

ACKNOWLEDGMENT

This paper has not been possible without being able to build on the results from internal studies and practices. We also like to thank Paul S. Campbell, Director of Personnel, DNV London for his valuable comments.