

The average growth rate of production in the construction industry between 2011 and 2018 in the Nordic region was 3.2 per cent, compared to 0.6 per cent across the EU (see Figure 1). This includes both the traditional domestic building projects and high investment infrastructure projects. Notable capital expenditure projects in the region include Copenhagen's Metro City Ring development in Denmark, the Ostlanken high speed rail line in Sweden (planned to start work in 2021), the Fornebu metro line in Norway (estimated to complete in 2026) and Google's second Hamina data centre in Finland (planned to start work this year). The scale and complexity of these projects require professional cost and commercial management, and this has widened the opportunities and growth in the engagement of quantity surveying services across the region.

Until recently, there had been no tradition of specialist cost management professionals in the Nordics and quantity surveying, as a profession, has had limited recognition and engagement.

Historically, quantity surveying services have been used on large infrastructure projects, such as public transport systems, where international firms were commissioned to assist. This means that quantity surveyors were engaged from overseas for specific projects, but left the region once the work was completed.

As a result, the profession was widely viewed as a foreign concept with little value. However, this perspective is starting to change and quantity surveying is beginning to play a more active role in the domestic construction industry.

Client-led demands for more stringent control of budgets and greater transparency on costing are important factors in improving the perception of the profession, and the trend for international clients employing quantity surveyors is now extending to regional client organisations.

This increased engagement with the profession is extending its influence across other professional groups. There is, for example, increased visibility of the profession by architects and engineers who have traditionally managed project budgets in the region.

Though progress is being made, it would be an exaggeration to say that the profession is universally admired. The general view is that it is unnecessary to adopt quantity surveying as a specific profession and design teams, in particular, are reluctant to deviate from the traditional norm.

Engaging quantity surveying services can also be viewed as just another increase in consultancy costs. Despite construction consultancies having the overall responsibility to deliver projects on budget — and finding new ways of delivering and controlling costs being in their best interest — procuring unfamiliar consultancy services can feel too counterintuitive. The profession, without doubt, has further work to do in demonstrating its value.

Culture and practice

Construction markets in the Nordic region have typically reflected local traditions, with minimal exposure to wider markets and practices. Individualism and personal autonomy feature highly in Nordic culture. It is, therefore, unsurprising to find that construction consultancies and contractors adopt their own approach to economic control for construction projects.

Common practice at pre-contract phase is for the design project manager to take on the responsibility of managing the overall design process and budget, which is updated as data is fed in from the client's other architectural and engineering consultancies engaged on a project. It is the role of the project manager to coordinate and manage this cost data based on their own experience, processes and practices.

Standardisation of measurement and cost management practices are not widely defined in the Nordics. There is no region-wide method of measurement principles in use — such as NRM — and cost management documents such as bills of quantities are largely developed by professions or companies at country, or even regional level. The fragmentated responsibility of cost control and the lack of standardisation can, in the view of a quantity surveyor, result in large variations of cost format, quality and accuracy.

A strong culture of early technology adoption exists in the Nordic region, however, and BIM is very much an integrated part of the design and project delivery process and has been a key tool for delivering construction projects in Nordic countries over the last two decades. BIM regulation was formally mandated in both Denmark and Finland in 2007, followed by Sweden in 2013 and Norway in 2016.

Figure 1: Construction growth in the Nordic region (2011–2018) 100 80 60 40 Growth (%) ი -20 -40 -60 2011 2012 2013 2014 2015 2016 2017 2018 Average Year Denmark Finland Norway EU average Sweden Nordic average (4 countries)

SOURCE: EUROSTAT (ONLINE DATA CODE: STS_COPR_A)

BIM is now used on all significant projects in these regions: quantity extraction is typically generated automatically from a 3D model, although the quality of the models can vary, and there has often been a lack of accuracy in the quantities produced.

Although there is a strong drive for best practice cost control across the Nordics, there is undoubtably room for improvement. Clients often comment on the struggle to control costs and deliver on budget, especially on more complex projects. The lack of standard practice can also mean there is limited availability of data to support business case development.

Scope of the role

In countries such as the UK, quantity surveyors carry out activities for the duration of a project — from pre- to post-contract. Given the nascent phase of the profession in the Nordics region, however, quantity surveying engagements rarely encompass the full range of services that exist in the competencies of the profession.

Quantity surveyors in the Nordics are involved in the following project stages to varying degrees.

- Business case. Quantity surveyors can be engaged to undertake high-level feasibility estimates against limited design information. These are often stand-alone exercises and do not guarantee further involvement, even if the project proceeds beyond this stage.
- **Design stages.** At this stage the cost management activity is likely to be assigned to a consortium of design consultancies and typically does not include quantity surveying engagement. Occasionally, quantity surveyors are engaged by a client to validate the design consortium's budgets.
- Tendering. In traditional procurement routes quantity surveying advice is rarely sought. In less traditional cases, such as a project using a two-stage design and build contract, the client or its adviser might appoint a quantity surveyor to develop all costing models and documentation relating to tendering and the tender analysis. This could include bills of quantities or measurement models, for example, although it is worth noting that due to the lack of standards for quantity surveying work in the Nordics the documentation used can vary widely. This engagement would not, however, normally extend to full quantity surveying services, such as the production of tender documents and management of the tender process.
- Contractor appointment. Quantity surveyors are rarely involved in this phase, which is usually led by in-house or external legal professionals. There is usually no follow up or commercial assessment performed by a quantity surveyor prior to execution.
- Execution. The role of the quantity surveyor, when engaged, is usually limited to assessing the impact of variations and changes. Quantity surveyors are rarely involved in wider areas of valuation or required to have a constant presence on site.
- Final account. It is rare that quantity surveyors are involved in this phase

The result of not applying quantity surveying services evenly throughout the project life cycle in the Nordics results in continuity gaps and prevents the application of homogenised cost management processes across all project stages. Consequently,

Pre-contract phase common practice is for the design project manager to manage the overall design process and budget

when projects in the region exceed their budgets the causes can be difficult to measure and analyse comparatively.

Developments

The calls to specifically address issues surrounding the financial performance of projects in the Nordic region are increasing. As a result, there is a growing interest in cost and commercial practices and how local markets can develop and enhance professional practices in these areas — and the profession is beginning to play an increasingly significant part in these discussions.

That said, there is currently still only a small number of either domestic or foreign-influenced consultancies offering any aspect of quantity services in the Nordics. This is currently estimated at between five and ten firms, but can fluctuate dependent on project demand. There has also been an increase in:

- the number of locally-based professionals qualifying as chartered quantity surveyors
- the number of chartered quantity surveyors registered in the region most qualified in the last decade
- the use of quantity surveyors by construction consultancies, client organisations and contractors
- the activity of local groups raising the profile of the profession
- the availability of educational courses focused on cost and commercial management in the region.

Many stakeholders in the industry, including other industry professionals, are beginning to see the benefits of a structured, professional approach to cost and commercial management in construction projects. For those of us currently working in the region, the best way to convince others of the benefits of our profession is clear: demonstration through delivery.

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