



Perspectives on National Occupational Standards: What do users think?

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Executive Summary

Introduction

- This research explored stakeholder perceptions and use of National Occupational Standards (NOS), and visions for their future, to inform the NOS Governance Group's pre-strategy work. It was conducted by the Edge Foundation between December 2019 and May 2020 and involved interviews with 28 stakeholders¹.
- From the early 1980s, occupational standards have been evolving in the context of a dynamic policy, regulatory and delivery landscape. National Occupational Standards (NOS) specifying the standard of performance required when carrying out a function in the workplace, together with the knowledge and understanding needed to meet that standard consistently, were intended to be UK-wide, explicit and accessible. By 2020, the vision was NOS would be widely used and valued as essential for ensuring 'a competent, flexible and safe workforce for driving a productive, globally competitive and sustainable economy'.
- However, there are now new opportunities and challenges to be considered with the emerging 4th industrial revolution, some being brought into sharp relief by the Covid-19 pandemic. For example, while new technologies can bring benefits such as increased quality, efficiency and enjoyment in life, there can be negative effects on individuals from the de-skilling of jobs, loss of autonomy, increased surveillance and reduction in the number and quality of social relationships. One big concern is the growing inequality in society. Not all will be able to access, afford and enjoy the innovations, with changes in working conditions and labour relations leading to insecurity in job tenure and higher levels of unemployment disproportionately affecting lower-income cohorts. How business is done is being re-examined with rapid changes in job roles and the trend is gathering pace for new ways of working and serving customer needs in response to the pandemic.

Why use NOS

- Value was said to be accrued from NOS through the collaborative work and sharing of resources and expertise between nations, to achieve alignment of systems and support workforce mobility. Employer-led definitions of competency and the common quality assurance system for ensuring currency and validity were also thought beneficial.
- Qualification developers and employers said NOS were valued for the detail provided of what is expected in different work roles. They could save time and effort in determining the content of qualifications and potentially enable employers to recognise the skills of those being recruited and inform workforce development. Although it was believed that the main focus in education and training contexts tended to be qualifications, rather than NOS, it was suggested that both providers and learners could benefit from knowing that these were based on NOS, reflecting sector requirements and endorsed by employers.

1. Interviews were conducted with policy makers and regulators (10); standards and qualification developers (5); employers (3); providers of education, training and careers guidance (10). 8 were operating UK-wide or in England; 8 in Scotland; 7 in Wales; and 5 in Northern Ireland.

Challenges in developing and using NOS

- Challenges were mainly related to funding and resource issues for NOS management, and for keeping NOS up to date in sectors subject to a fast pace of change. It was sometimes not easy to sustain employer engagement to ensure consultations are inclusive, with employers citing difficulties in finding time to deal with the complexity and length of NOS documents.
- For those operating across borders, additional difficulties were faced in reconciling differences between apprenticeships in England and the Devolved Administrations. Such divergence was leading to more fragmentation, competition and uncertainties in the marketplace with regard to the financial viability, supply and portability of qualifications across all four nations.
- While there was limited regular use of the NOS database by respondents, size of the database and duplication, exacerbated by problems with its search functionality, was said to make it hard to access the required NOS.

Vision & shaping the future

- Overall, respondents agreed it was important to have common, guiding principles to support consistency in approach, preferably UK-wide, in setting industry benchmarks and measuring competency. Also, to support the transferability of skills and competencies, and the portability of quality assured qualifications.
- Most suggestions for the future of NOS related to policy and management, including the need for: overt government commitment, four-nation engagement, clarity and better coordination in policy direction and priorities; alignment with industrial strategy, rather than moving forward on all fronts in all industries.
- Recommendations for awareness-raising and promotion of NOS were next highest (although half those on policy and management), to increase understanding of NOS and potential uses.
- Other suggestions were more-or-less equally split between addressing issues to do with access to NOS, relating to format and the currency, size and functionality of the website/database, and those concerned with resourcing. There was a strong call for reviewing the funding model as it drives behaviour and impacts on the efficiency and effectiveness of the NOS system. It was thought that a combination of government and industry funding may be needed.

Conclusion

- Purposeful sampling of stakeholder perceptions of the benefits and challenges in using NOS and visions for their future, drawn from 28 in-depth interviews, elicited largely positive responses about the future of NOS, albeit with some caveats.
- In analysing responses to the research, several possible futures for NOS could be identified, ranging from maintaining the status quo at one end of a continuum to developing new forms of standards at the other end. Most respondents seemed to prefer retaining NOS in their current form (familiar, less disruption to the market), but with further improvements to the NOS database such as reduction in size and better search functionality, wider communication and marketing, and faster updating of NOS. Others suggested: producing additional products to meet the needs of specific target users, e.g. to provide less complex versions and show how NOS can be used more flexibly; or, more radically, developing new forms of occupational standards, informed by the English model and others such as World Skills, while adhering to agreed principles.

- The rapid pace of change, complexity of emerging technologies and the broader impacts of the 4th industrial revolution, coupled with the fall-out from the Covid-19 pandemic, mean that there will be challenges for governments in taking forward the NOS system. There will be a need to think strategically, adopt 'agile' governance, continuously adapt to new, fast-changing environments and collaborate closely with business and civil society to be in a position to reflect common objectives and values and shape a future that works for all.
- In looking at the desirability and viability of different futures for NOS (the above views are not exclusive), thought would need to be given to the:
 - balance between potential advantages and disadvantages, and for whom
 - level of support likely from the respective governments and stakeholders
 - scope for change given other policy priorities
 - practical/financial implications for each nation, their partners and NOS users
 - availability of the necessary funding and resources to deliver what is required.

Recommendations

There are a number of underpinning considerations that are important in setting the direction for the future of NOS, irrespective of the extent of desired changes along the continuum described in the conclusion.

- Identify priorities in terms of the: target user groups; purposes for using national occupational standards; sectors and occupations to be covered
- Identify the underlying principles of NOS
- Develop a clear link between purpose, target group and needs with regard to content and presentation of standards taking into account different uses
- Consider the economic, social and policy contexts in which national occupational standards will operate, including their relationship to other standards and qualifications, and identify the key developments and needs to which they relate using transparent and consistent LMI and other data sources
- Identify potential funding model and the resources necessary to deliver what is required and re-visit priorities in relation to what resources will, realistically, be available
- Maintain an inclusive, employer-led approach to developing national occupational standards through consulting widely with target user groups and stakeholders to develop documents that are fit for purpose and target group, and user-friendly
- Develop the website/database to serve the respective user groups and ensure it is easy to navigate
- Strengthen profile of national occupational standards within skills systems through the development and delivery of an effective, targeted and ongoing communications and marketing strategy
- Develop an evaluation strategy to identify what works well, and the effectiveness of procedures to address any issues.

Introduction

Background to research

Skills Development Scotland (SDS) commissioned the Edge Foundation to undertake research to support the NOS Governance Group in National Occupational Standards (NOS) Pre-Strategy Work. The Group consists of representatives of the three Devolved Administrations (DA), Northern Ireland, Scotland and Wales, who work collaboratively to ensure common agreement and a shared vision of NOS and that they are fit for purpose and responsive to change. Ministerial agreement across the three nations is seen as a vote of confidence in the NOS system which is now at the next milestone in its journey. The research conclusions and recommendations are to inform the Governance group in the process of considering the future direction of NOS.

Research aims and research questions

The overall aim of the research was to explore stakeholder perceptions and use of NOS and how they envisage the future of NOS, to inform SDS' strategic plan looking at three key questions:

- How are the benefits attributed to NOS perceived by different stakeholders?
- What are the challenges, if any, in using NOS and how may they be addressed?
- How do stakeholders view the future of NOS?

Research approach

The research was completed between December 2019 and May 2020. The study is based on 28 semi-structured interviews with stakeholders' representatives.

Breakdown of interviewees

Stakeholder groups	Number interviewed
A. Policy makers and Regulators	10
B. Standards and Qualification Developers	5
C. Employers	3
D. Providers of Education, Training and Careers Guidance	10

Geographical affiliation: England/UK (8); Scotland (8); Wales (7); Northern Ireland (5).

A wide range of stakeholders were interviewed from all countries of the UK: national government representatives; representatives of Sector Skills Councils, awarding organisations, employers, employer and training bodies and other interest groups; and further education (FE) practitioners. Interviewees were identified by the NOS Governance Group and through Edge's networks and purposefully chosen to include those most likely to have had experience with NOS. It should be noted that some have a history of considerable involvement in developing

and maintaining NOS, while others have limited direct experience, and this should be kept in mind when reading the findings. Furthermore, all employer interviewees were large employers working across the four nations of the UK. Interviews lasted between 30 and 70 minutes and were recorded to facilitate subsequent analysis. See appendix for an example interview schedule.

Thematic analysis was used in line with the framework set out by Braun and Clarke (2006²). This iterative staged approach to analysis, through the generation of codes and themes, enables rich and detailed, as well as complex accounts, to emerge.

Edge follows the British Education Research Association ethical guidelines 2018 (<https://www.bera.ac.uk/resources/all-publications/resources-for-researchers>) concerning issues such as, anonymity of interviewees, confidentiality of research data and data protection. Edge also adheres to the EU's GDPR introduced in May 2019.

Brief History of NOS and the 2010 NOS strategy

National Occupational Standards (NOS) specify the standard of performance an individual must achieve when carrying out a function in the workplace, together with the knowledge and understanding they need to meet that standard consistently. Each standard describes one key role in a job function. Taken together NOS describe occupational competence – what it means to be competent in a job role. To be fit for purpose NOS must address requirements to do with: technical skills and knowledge, managing the work process and environment, and working relationships. They cover not only what someone must do, but the outcomes they must achieve.

From the early 1980s there has been a lengthy history of developing occupational standards in the context of a dynamic policy, regulatory and delivery landscape. The diagram below charts some of the key policy initiatives that have impacted on NOS.

It was in 1981 that the Manpower Services Commission (MSC) proposed a new kind of standards for the whole of the UK. These standards were intended to be explicit, agreed, widely accessible, flexible, progressive and testable; and specified at the level of skills and tasks in relation to the overall requirements for competence in an occupation. Since then successive government reforms have impacted on NOS, not only resulting from changes in the design of qualifications, and apprenticeships in England, but the bodies responsible for their development, approval and quality assurance.

Although close liaison on policy initiatives and collaborative work between the four nations of the UK has been on-going, Scotland has long operated its own system, qualifications framework and types of qualifications. This includes Scottish Vocational Qualifications (SVQs) which untypically have a direct, unit-based relationship with NOS. However, historically, Wales and Northern Ireland have shared their qualifications with England, including their design features and apprenticeship frameworks. It has been relatively recently that some divergence has occurred between the nations, with more responsibility transferred to the Devolved Administrations and policy changes in England.

2. Braun, V. & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3 (2), 77-101

Diagram 1: **Some key initiatives of relevance to NOS**

1980s	1990s	2000s	2010s	
<p>1981</p> <p>A New Training Initiative: An Agenda for Action (MSC) introduces a new concept of standards</p>	<p>From 1990</p> <p>SVQs introduced in Scotland</p>	<p>2001</p> <p>SCQF launched (Dec.) in Scotland Early work on QCF</p>	<p>2010</p> <p>NQF replaced by QCF for England, Wales & N. Ireland by end of year</p>	<p>2015</p> <p>New Institute for Apprenticeships for England</p> <p>Transition starts from QCF to RQF regulated by Ofqual in England & CCEA in N. Ireland</p> <p>Qualifications Wales becomes operational as the regulator in Wales</p>
<p>1985</p> <p>Standards of competence & associated courses & certificates to be available for all significant skilled occupations in UK</p>	<p>1995/6</p> <p>Beaumont Review of content & structure of NVQs & SVQs</p>	<p>2003</p> <p>CQFW introduced in Wales</p>	<p>2011</p> <p>NVQs removed from NQF and put into QCF – common currency</p>	
<p>1986</p> <p>Review of VQs (MSC) in England & Wales</p> <p>NCVQ & SCOTVEC established to reform VQ systems</p>	<p>1997</p> <p>Merger of NCVQ & SCAA to form QCA and SCOTVEC & SEB to form SQA, with remits to approve S/NVQs</p> <p>NTOs replaced by UK-wide SSCs & SSBs to develop standards, overseen by SSDA providing economic, employment & skills data to inform sector qualifications strategies</p>	<p>2008</p> <p>QCF introduced with need for AOs to redesign qualifications for inclusion in Framework</p> <p>SSDA replaced by UKCES (April), and funded by the UK government to be responsible for NOS</p>	<p>2012</p> <p>Richard Review of Apprenticeships leads to NOS no longer being funded in England</p>	<p>2016-2017</p> <p>UKCES closed & NOS funding by UK government ceased. Transfer of responsibility for NOS management & funding to SDS/DAs</p> <p>SSCs/SSBs reducing in number, with establishment of supplier networks</p>
<p>1987</p> <p>NQF introduced, with NVQs</p> <p>ITOs funded to develop standards</p>			<p>2014</p> <p>Review of QCF</p>	<p>2018</p> <p>All QCF quals transitioned into RQF</p>

Key to acronyms provided below:³

3. MSC: Manpower Services Commission; VQs: Vocational Qualifications; NCVQ: National Council for Vocational Qualifications; SCOTVEC: Scottish Vocational Education Council; NQF: National Qualifications Framework; NVQs: National Vocational Qualifications; ITOs: Industry Training Organisations; SVQs: Scottish Vocational Qualifications; SCAA: School Curriculum & Assessment Authority; QCA: Qualifications & Curriculum Authority; SEB: Scottish Examination Board; SQA: Scottish Qualifications Authority; NTOs: National Training Organisations; SSCs: Sector Skills Councils; SSBs: Standards Setting Bodies; SSDA: Sector Skills Development Agency; SCQF: Scottish Credit & Qualifications Framework; QCF: Qualifications & Credit Framework; CQFW: Credit & Qualifications Framework for Wales; AOs: Awarding Organisations; RQF: Regulated Qualifications Framework; CCEA: Council for the Curriculum, Examinations & Assessment; UKCES: UK Commission for Employment & Skills; DAs: Devolved Administrations.

Changes of particular significance to NOS include:

- changes to the design features of qualifications resulting from replacement of the National Qualifications Framework (NQF) by the Qualifications and Credit Framework (QCF) and subsequently by the Regulated Qualification Framework (RQF). While Northern Ireland shares the RQF with England, Wales, like Scotland, has retained its own Credit and Qualifications Framework
- the move in England to change from apprenticeships with a 'basket of qualifications' underpinned by NOS to new Apprenticeship Standards with end-point assessments, while the other nations have retained Apprenticeship Frameworks with qualifications based on NOS
- transfer of responsibility for managing and funding NOS to SDS and the Devolved Administrations resulting from closure of the UK Commission for Education and Skills (UKCES) that managed NOS with funding by the UK government and provided UK-wide labour-market analysis. Subsequent reduction in Sector Skills Councils and Standard Setting Bodies responsible UK-wide for defining and up-dating NOS.

The vision driving the 2010 strategy was ambitious: that by 2020 high quality NOS would be widely used by qualification developers, employers and other stakeholders and valued by UK governments as essential for ensuring a competent, flexible and safe workforce that can drive a productive, globally competitive and sustainable economy. By 2011, a third of the workforce was reported as holding a vocational qualification and nearly two million people had completed or were on programmes based on NOS.

However, the picture looks very different now when it comes to developing a strategy for the next phase for the future of NOS. The purpose of this report is to contribute to the development of that strategy.

With the emerging 4th Industrial Revolution,⁴ there are both challenges and opportunities that will need to be considered, some of which are being brought into sharp relief by the Covid-19 pandemic. For example, improved technologies and systems can bring benefits such as increased quality, efficiency and enjoyment in life, but there can be negative effects on individuals from the de-skilling of jobs, loss of autonomy, increased surveillance of activity and reduction in the number and quality of social relationships. One big concern is the growing inequality in society. Not everyone will be able to access, afford and enjoy the innovations, with changes in working conditions and labour relations leading to insecurity in job tenure and higher levels of unemployment. There has been an increasing trend towards segregation into 'low-skill/low pay' and 'high skill/high pay' which disproportionately affects lower income cohorts.

The effects on business of increased customer expectations, and the need for product enhancement, collaborative innovation and organisational forms, has meant re-examining how business is done and questioning the assumptions of its operations. With the requirement for new ways of working and serving needs in response to the pandemic, this trend has gathered pace overnight.

4. Further information at: <https://www.weforum.org/agenda/2016/01/what-is-the-fourth-industrial-revolution/>

Findings

In this section findings in relation to the following five themes are reported:

- 1) Why use NOS: different stakeholder perceptions of the importance, functions and value of NOS are presented along with views on alternatives to NOS.
- 2) Use of NOS: perceptions relating to the extent of awareness of NOS are summarised. Examples are given of use by primary and other users for different purposes, including what is said to work well and the challenges.
- 3) NOS content and quality assurance: perceptions of NOS content, and reflection of current skills needs and future skills demand is discussed, including the critical analysis of the process of generating timely content.
- 4) Ease of access to NOS: stakeholders' experiences and reflections of using the NOS database are outlined relating to accessibility, presentation, size and language.
- 5) Vision and shaping the future of NOS: how stakeholders envision the future of NOS and their suggestions for priorities in shaping their future.

It should be noted that this section reports perceptions and views on NOS as they were expressed by the respondents to the research. Given the varying extent of the respondents' direct engagement and experiences of NOS, their responses will be more or less informed by the realities of what is happening in practice. To ensure the anonymity of respondents and at the same time to help put the quotations into context, coding of the interviewees has been developed and used after each quotation. The letter indicates the stakeholder group: A for Policy Makers and Regulators; B for Standards and Qualification Developers; C for Employers; and D for Providers of Education, Training and Careers Guidance. A number is assigned to each interviewee in that stakeholder group to protect the identity of the individual concerned. For example: A1 is interviewee 1 from the policy maker and regulator group; C3 is interviewee 3 from the employer group.

Why use NOS

Findings on the importance of NOS

Overall, stakeholders agreed that National Occupational Standards were important in supporting: consistency in approach, preferably across the UK, in setting industry benchmarks and measuring competency; the transferability of skills and competencies; and the portability of quality assured qualifications.

For policy makers, NOS provides some structure and architecture to the system:

. . . with us all doing different things with different government priorities, with different ways of carrying out an apprenticeship, at least . . . having a NOS at the core means that everyone's trained to the same standard, and that's really important. . . for learners to transfer their skills in the future, but also for employers and for others' governments. (A3)

Employers agreed that it is important to have a set of standards for all, so everyone can work towards achieving a certain level of competence', but this needed to be: a '*modern standardised approach to fit the needs of current and future employers and employees*' (C1). It was thought useful to have: '*a common currency, a repository of capabilities needed by employers for use by providers, learners and parents*' (C3) and '*a solid framework*' to ensure

'appropriate skills development around qualifications that work for the industry. . . and to help see the capabilities which become core across different jobs function and sectors' (C2).

Developers of standards and qualifications reiterated the importance of NOS in having an industry source to help build confidence that people are competent in their field. NOS were seen as a relevant and credible way to ensure vocational qualifications cover the skills and knowledge needed for respective job roles, *'ensuring transferability, currency and all that is wrapped up in their validity' (B1)*. NOS were said to provide *'a sense of uniformity for various industries and sectors. . . a level of consistency that underpins whatever product or service was being delivered especially if it required approval for state funding' (B4)*.

Providers of education and training cited the importance of NOS for informing the content of qualifications and contributing to their quality, but also agreed with having something on a national basis describing: *'universality of the job. . . a common minimum standard of competence' (D8)*, especially in areas that lack regulation.

...you need to have a standard which has been signed off by employers, because ultimately vocational qualifications are delivered through the workforce to meet the needs of employers. Having a set standard that everybody subscribes to and understands and feels that they contribute to. . . is a hugely important element of a national skills system. (D3)

However, although there was a general consensus across stakeholders about the importance of having National Occupational Standards, certainly in terms of the principles that guide them, it became clear that not all were wedded to the NOS brand and not all felt NOS, as they stand, are always fit for purpose.

There was some concern from several stakeholders about the complexity of NOS documents and whether they were always up to date. For example, one regulator who suggested they *'probably wouldn't describe NOS as important'*, went on to explain that currency is an issue:

Occupations these days are changing so rapidly, are so fluid. . . With lots of new... and combined. . . occupations, people are working in different ways. [So,] a monolithic set of NOS, unless they are very routine standard jobs, is not particularly useful. . . maybe over bureaucratic in ambition and administration. (A10)

Another regulator expressed the view that despite NOS being a *'fantastic resource'*, *'lack of usability is a problem'* (A6) and an employer reported that:

When I am given a 200-page document to look at and share with my colleagues in the business who are experts in those areas, the initial thought is: *"I haven't got time to look at this. The document is so unwieldy"*. (C1)

A careers service provider also suggested that the: *'level of detail' was 'part of the reason they don't use NOS an awful lot' (D9)*.

Findings on the functions of NOS

Across the different stakeholders, it was believed that the main functions of NOS were, firstly, to set a national benchmark, the minimum levels of competence required in given job roles and, secondly, to inform the development of qualifications, to underpin qualifications and, where still appropriate, apprenticeships.

Other potential functions included those related to HR activities, for example to inform: job descriptions; recruitment; environmental and health and safety codes of practice; pay and grading systems; competency frameworks; internal workforce development programmes and succession planning. In highly regulated areas NOS could underpin legislative requirements.

Some stakeholders also mentioned potential roles in supporting Recognition of Prior Learning (RPL) and careers information and guidance.

I think used in the right way NOS could have a role to play in careers advice, careers planning etc. – to cross reference existing skills, aspirations, an individual's ambition with key words in NOS - and therefore arrive at an aggregated view of the sets of NOS. . . and occupations that might be most appropriate. (D5)

However, as mentioned above, the current presentation of NOS and level of detail does not lend itself to this use.

Findings on the value of NOS

Perceptions of the value of NOS at national levels

From the perspective of policy makers and regulators operating at national levels, the perceived values of NOS included: low cost of the product resulting from collaborative work between nations which allowed for sharing resources and expertise; and the contribution of NOS to achieving alignment of systems and consistency of message. For example:

Having NOS allows us to share our policy positions. . . acknowledge our devolved systems and policy areas, but at the same time align our systems. . . funding systems, our priorities as to what we want to develop and the direction we want to go. (A1)

NOS were said to hold value for the UK by encouraging the active involvement of employers in ensuring a competent workforce and providing the foundation for qualifications, with consistency between awarding organisations. Other stakeholder groups agreed that a common baseline and stream running through the nations' quality assurance systems, is key to ensuring, at macro level, labour mobility and the currency and validity of qualifications and training programmes. A qualification linked to NOS: '*should be transferable so individuals can move across boundaries and secure work, and that should be understood by employers recruiting transient workers*' (D3). However, whether or not this is the case in practice was questioned.

Value of NOS to developers of standards and qualifications

Developers of standards reiterated the value of NOS in their work in providing a focus for working with employers on defining minimum levels of competence required in the various sectors and occupations, and the scaffolding around qualifications. Awarding organisations valued readily available NOS as the basis for qualifications in terms of having some content to start from and build on in a consistent way, with savings in time, effort and expense.

Value of NOS to employers

Providers working closely with employers thought that NOS were an added value for employers when taking on a new recruit, in knowing what skills that person has, and in informing: *'how they work with and develop employees and what qualifications they could work towards'* (D2). It was suggested that NOS can make it clear to employers the expectations of respective work roles which can help in developing a more flexible and mobile workforce. For example, by comparing NOS across work roles, common skills and competencies can be identified and scope for employees to take on different roles.

Examples of value given by employers, themselves, included the role of NOS in *'governance of what is expected of employees'* (C1) to make sure they are competent, and the standardisation and consistency they bring. One employer suggested that they are: *'leaving behind job descriptions with a set of capabilities attached to them'* and *'the days of workforce planning are done'* (C3). But NOS were valued as: *'a great way of navigating opportunities during which competencies may need to be developed in real time and doing ongoing workforce development'*.

Meta skills and meta capabilities were thought to make discussions about NOS more interesting and could protect people's jobs from automation. For example, identification within NOS of high level thinking skills and competencies that are common across different jobs can offer employees flexibility in the types of work they can do and help employers recognise the potential of their labour force in dealing with changes resulting from advances in technology.

Value of NOS to providers of education, training and careers guidance

Providers pointed to the value of NOS in terms of helping them to know what their training should cover and what level to start learners at, taking account of the level of qualifications they come in with. NOS can act as a marker for setting an entry level for a course, and as building blocks in developing skills from one level to the next so learners will be competent to move into an appropriate job. NOS were also said to represent *'a minimum practice standard and something that is verifiable'* (D8). The value of NOS for one provider was described as follows:

When employers say to colleges *'we are not supplying learners with the right thing to meet our skill sets, our pipeline'*, NOS provides a very good reference point for us. . . a degree of confidence that no matter what employers say to pull you off on a tangent. . . [we can say that] we are developing them in line with what is deemed to be NOS for that particular job role. (D7)

However, other interviewed providers, although agreeing that NOS are valued as a focus for skills development, pointed to the importance of working closely with their employers to make sure they were meeting their needs. It was acknowledged that there was value from NOS being developed by employers who knew what was required in their sector and from knowing that they were using the same standards. In training careers advisers, for example, it was said to be useful to know that: *'the qualification being used was underpinned by NOS, that the standards translated into the qualification are industry-led'* (D9).

Some stakeholders believed that, rather than NOS, the main focus of many education and training providers is on qualifications, with the funding system reinforcing behaviour where: *'qualifications get taken off the shelves, delivered with the assessment that goes with it, end of, package done'* (A2). However, while it was thought that a provider did not necessarily need to know the details of NOS, there was value in them knowing: *'what they are delivering has been quality assured and approved'* (A6).

Findings

Furthermore, it was thought that access to NOS can help with the design of courses and give providers confidence in getting students ready for the industry: *'it won't be old fashioned. It will be relevant as developed by experts in the field'* (B2). Identification of generic competencies that can be transferred across different sectors and levels was also expected by some to have potential value for providers, as well as learners.

Value of NOS to learners

Although no learners were interviewed, respondents to the research were asked for their views on what value NOS may have for learners. Generally, it was felt that most learners were not likely to be aware of NOS as their focus is more on the qualification, or course, they are doing. In terms of potential benefits to learners, providers mentioned aspirational value for learners in knowing that their qualification has been *'rubber-stamped by employers, that it contains what employers have decided they need'* (D2). NOS could help learners to *'see what they need to know, do and experience to work in the sector'* (D3) and articulate what skills they've got to offer (A2). A policy maker suggested there could also be potential *'satisfaction and reassurance to know that once they've qualified or once they've completed their course, then they are able to transfer that learning regardless of where they choose to position themselves. . .'* (A1).

It was made very clear that such benefits would only be recognised by learners if NOS are used as intended and if learners genuinely understand the qualification they have done, and been given the information about learning outcomes. However, it was not possible to gauge the extent to which this happens in practice or verify the potential benefits.

Although it was noted that the funding regime does not currently support this, NOS were also thought to have value as a framework for the Recognition of Prior Learning (RPL) in enabling skills and competencies to be readily benchmarked and allowing learners to complete a qualification in a much shorter time.

Alternatives to NOS

The above findings reflect a fair degree of agreement about the importance of NOS, potential functions and the value accrued from their use. Consistency, standardisation, transferability and portability were terms in common usage in relation to NOS. It was acknowledged that the NOS model has informed the development of standards in other countries, with links to the European Qualifications Framework (EQF) enabling comparison across Europe. Having NOS, with a mechanism for employer engagement in their development and reviewing, was considered: *'a real strength of the qualification system'* and the *'envy of other European Nations'* (A9). However, it was also recognised that the system is not without flaws.

While a few felt it was important to retain the NOS brand, albeit with some refreshing and reinvigoration, to avoid disengaging employers and other stakeholders that use them, it was clear that confidence had been shaken with regard to the longer-term future of the NOS brand as a result of England's reform of apprenticeships. The majority said they regretted the change of approach in England due, for example, to its impact on the supply and portability of qualifications in Devolved Administrations.

Nevertheless, there was no doubt about the importance of retaining the guiding principles behind NOS. While some expressed uncertainty about alternatives to NOS, it was thought that there would *'always be a need for very specific outcomes that show what the requirements are in terms of competence'* (A2), for employers to discuss

and set out their expectations of standards in their sectors, particularly those who operate across the UK and, for some, throughout Europe and internationally.

There were mixed responses when asked about the relative merits of NOS and English Apprenticeship Standards. Some were concerned about misconceptions, what they perceived as unhelpful, predominately politically driven messages about NOS, and the extent to which NOS were being used as a *'scapegoat for failings in the wider system'* (A1), but a few could appreciate the reasons for change.

Politically, from research and evaluation, NOS weren't high enough profile or well enough understood by industry. . . It was also wrapped up in Treasury expense and control around the need to have them put somewhere, looked after, maintained, refreshed. That was the role of the intermediaries, Sector Skills Councils, . . . but these organisations were in the way of switching to a more demand-led focus. . . a more direct relationship between the Government and employers... NOS was just a big thing in the middle of all that. . . (B1)

Some stakeholders said they had lost confidence in the consultations in England, with a perception that specific subsets of employers were generating the new Standards, with the outcome being job descriptions for a company, not underpinning sets of standards. Those with experience of both (e.g. B5, C2, D5), described Apprenticeship Standards as: more holistic, positioned at a much higher level, with job role duties coming first and End Point Assessments and assessment plans defining the detail. As an outcome of the functional analysis of tasks, NOS were considered *'harder work to initially consume, but deeper in going into the granular detail'* (C2). They define exactly what has to be done.

There was no clear preference expressed for one form of standards over another, but rather a suggestion that maybe what is needed is *'something between the two'* as one regulator explained:

[NOS] may be a bit too unwieldy and trying to do too much and possibly they could be refreshed. They could be more valuable in moving forward if they were more concise. But I'm not sure the standards for apprenticeships in England are quite right, they are certainly more concise, but they might need more development – maybe there's a need to create things that are somewhere between those and NOS. (A10)

Use of NOS

Overall, highest levels of awareness of NOS were perceived to be among those directly involved in developing standards, and the regulation and development of vocational qualifications and apprenticeships. Levels of awareness among employers was said to vary with SMEs, a large part of the economy in the Devolved Administrations along with sole traders and freelancers, less likely than large companies to know about NOS. It was thought that education and training providers were aware that NOS underpinned vocational qualifications, but it may be that not all were concerned with the detail.

There was less certainty about the extent of NOS awareness among other potential users. For example, individual awareness was said to be dependent on whether, or not, a learning provider or employer explained them. It was not thought that a careers information and guidance provider, a potential user, would be fully aware.

Use of NOS reported by policy makers and regulators

It was suggested that when integrated into the qualification system and transported into apprenticeships, NOS continue to be widely used. Even in England, anecdotal evidence, and increased NOS database hits, indicated that, despite loss of funding and no obligation to maintain NOS, they are still being used. Education and training providers were known to be using NOS when delivering vocational qualifications and apprenticeships; and some as a benchmark for designing learning programmes.

It was also known that NOS were being used to support HR functions in some large companies, for example to help meet legislative requirements in highly regulated sectors such as Construction. In one Devolved Administration, examples were given of NOS use in developing and accrediting CPD programmes and staff development in sectors such as Health and Social Care and Engineering. However, it was generally said to be difficult to be sure about the scale of use by employers.

An interviewee with an overview of apprenticeship providers believed it likely that:

... bigger employers will have a more comprehensive use of NOS because they have big HR departments and see the value of what NOS has to offer, but with smaller ones the importance of NOS is simply as the underpinning - a source of information for the design of qualifications ... smaller companies probably wouldn't think about using NOS for HR purposes. (D1)

It was thought that company size is a significant factor affecting the likelihood of NOS being used.

Use of NOS reported by developers of standards and qualifications

Those responsible for developing NOS highlighted their use in putting together vocational qualifications based on their recommended structure, but also suggested they can be used to define and design a variety of other products such as training materials and competency frameworks.

Awarding organisations agreed that a primary use of NOS was as a reference point in developing and updating vocational qualifications. Although not limited to using NOS, they looked at them when considering the learning outcomes for qualification units as NOS give: *'a good idea of the skills and knowledge needed for a particular role. . . a very good starting point. . .* (B4). They also use NOS to produce products such as resources to guide the delivery of qualifications and, more generally, skills education.

In Scotland, unlike other UK nations, awarding bodies develop SVQ units with a direct, one-to-one relationship with the NOS, after which they may be used in part of the Scottish Modern Apprenticeship Framework. In the other two Devolved Administrations, NOS are also used to inform the development of vocational qualifications and can be included in those that are offered within the respective apprenticeship frameworks. In England where it is no longer an obligation to use NOS, they were still said to be used in helping to develop the Apprenticeship Standards and vocational qualifications for the wider market.

Use of NOS reported by employers

One qualification regulator (A7) involved with NOS as part of the quality assurance process, mentioned that their organisation uses NOS to develop its internal, competence-based framework for employees. However,

not all interviewees were necessarily aware of whether, or not, NOS were being used in their company outside of their own area of responsibility. For example, the employer below admitted they did not know whether NOS were used outside of apprenticeships, although their company also had a competency framework describing expectations of employees.

Example of ways one company uses NOS

We have 4 different streams of operation, one of which is apprenticeships. We have a range of different trades: welders, sheet metal workers, steel workers, painters, joiners, electricians. We also have project management and engineering apprentices. All of them work towards qualifications based on NOS.

We induct apprentices by trade and role. . . and cover NOS when we go through the qualification details, but probably don't say where more information can be found. It's more about explaining that NOS are what the qualification is derived from.

We have partners across our programmes: two colleges, a bank, and a UK-wide training provider. During their first year, apprentices are based off-site at the colleges. They deliver parts of the apprenticeship framework, generally the theory, the knowledge aspects, the technical qualifications, whereas the vocational qualification and practical aspects of doing are delivered on the site by my team. We also partner with some universities for our graduate apprenticeships, but they don't use NOS.

In our company each trade has what's expected of each role, almost like a skills matrix. Some of the work our apprentices do is not necessarily incorporated in the NOS, so we give additional tasks, or exposure to things to make sure the employer is getting the person they want. On occasions they are doing tasks that meet the NOS, but these are not necessarily part of their role. There's a bit of a six of one, half a dozen of the other situation.

I think it was some years ago that there was a review of NOS and as you can imagine time has moved on and we're into another industrial revolution, 4.0. NOS are probably not quite there in terms of technological advances in some areas. People have to demonstrate different behaviours as well as knowledge and skills and our company has: *'a huge focus on behaviours. It's not necessarily what you do but how you do it. . .'*

(C1)

It was noted that other employers with training departments who had grown up with NOS have expressed frustration that they have not been modernised sufficiently. However, it was still felt possible to turn them into something that is deliverable and use NOS to: *explain to someone exactly what they are going to learn and then check if they can actually operate against that competence'* (C3).

Employer reflections on use of NOS

We never used the NOS directly as a single document. We used the outcomes of them, the output: Apprenticeship Frameworks. England used to have Frameworks, but now Standards have been developed. . . , so we have moved across our programmes to embrace these, although we are still using some vocational qualifications within retail and for more professional services: Law, Accountancy, HR. We currently mesh in NOS with the English Apprenticeship Standards, unpick the background wiring and differences, for example in assessment.

Fundamentally for us it is about development and training. NOS are the starting point and foundation for a development route because they detail what the industry needs at quite a granular level. They are a great basis for writing a role profile, competency framework and development around performance management. It gives us structure around what a great colleague would look like. . . .

We identify the development needs that will support our business and provide the right skills to sustain us in the future. We look at the local - the devolved - skills offer and make sure we get the development skills we need in place. So, a colleague can get the same development journey, but they can roll out of it in Scotland with an SVQ and in England with an English Standard. We have to think about our end game: colleague development. We don't mind where our colleague lives, we want consistent service.

We have been working with, and have seen NOS standards from, some of the old Sector Skills Councils. . . but it has been quite a massive task. NOS do not have documents which are easy to access. . . they are not easy to read or to review. It will help if we have NOS in a format which is easy to consume, but in the broader sense they can really help us with making sure we get our talent requirements out there in a way that is consistent.

(C2)

Use of NOS reported by providers of education, training and careers guidance

The majority of providers interviewed confirmed that they were using NOS in relation to qualifications, including those within apprenticeship frameworks in Devolved Administrations that are still using them, but the extent to which NOS are being made explicit to colleagues and learners was said to vary. Some argued that if qualifications are regulated people did not need to know the detail of NOS.

Other examples were given of the use of NOS for strategic and curriculum planning purposes, for example as amplification of what they might be expected to deliver. For curriculum planning purposes, one provider (D5) described how they looked at both local needs and national trends to make sure the qualifications offered to learners met these needs; and also worked with awarding bodies in their sector to make sure qualification structures were appropriate.

College Example 1

As a college of Further Education, we are heavily involved in delivering vocational qualifications which are underpinned by NOS and included in apprenticeships, and it is intended that this will continue in our nation. The college uses a suite of qualifications that have already been regulated and aligned to NOS. . . Currently, on a day-to-day basis, a lot of the wiring is hidden from us, but we don't need to fully understand NOS if we are focusing on what our lecturers are doing on the ground. They are delivering to a specific qualification specification that has already gone through a regulated process. . . and we assume. . . it has relevance and transportability (even where there are different regulations working across the whole nations [of the UK]. . . The college probably doesn't use NOS when appointing staff to different posts . . . they are recruited using a competency-based model and qualification level. (D7)

College Example 2

When setting up a portfolio for new qualifications in my college we use NOS to determine the knowledge and performance criteria to be put in. My work-based learning team and the assessor team use NOS at various times relatively extensively and, in being responsible for these teams, I look at NOS from a strategic perspective, for example when I need to update VQs. Team leaders and assessors arrange assessment strategies around NOS. We work holistically with companies and candidates to work out how knowledge and performance criteria will be met (D4)

There were only a few mentions of the direct use of NOS in recruitment.

I've developed a job description for an apprentice finance and admin officer based on NOS. My process was to obtain the NOS, choose elements that I felt met the needs of the business in terms of the role that we were looking to recruit for and then extracting those standards to form the role, responsibilities within the job description. (D3)

Those working in the field of careers guidance suggested that the actual use of NOS with clients may be limited because of their level of detail; and for the same reason it was also thought that NOS '*wouldn't be the first port of call for job-seekers*' (D9).

Sufficiency of NOS use

While some believed there was sufficient NOS usage across the four nations of the UK, especially in relation to qualifications, others felt they were being: '*used less than before in that space because of the fragmentation across the UK*' (B5); and there was some '*doubt about longer term commitment to their use*' (D7):

When NOS was a fundamental part of a UK skills system and qualification system, then absolutely NOS was hugely important but I think the reality is with the divergence of skills policy, which has resulted with the move of England from the three Devolved Administrations and the infrastructure that supports that, first of all with apprenticeship standards and now with T Level standards, use of NOS is in significant demise. (D3)

Findings

One interviewee agreed that, although supportive of NOS, policy changes in England had decreased their NOS work with awarding bodies and: *'they had lost millions of pounds worth of work especially with Sector Skills Councils'* (B2).

For some policy makers and regulators, lack of awareness of NOS was given as part of the reason that they are probably not used as extensively as before. For example, it was believed that there has not been the same level of investment in the NOS database and in explaining what it could offer people. It was thought that, although NOS are still used by some HR departments, there has been a move away from NOS being a central feature. It was said that: *'employers can be confused because of the different system in England. NOS have lost their place and NOS are talked about a lot less'* (A2). One interviewee reported that they *'had not seen NOS mentioned in any recent policy documents'* (D9).

Some employers suggested that reasons for under-usage included perceptions that the NOS system: was a top down policy; lacked user-friendliness; did not keep pace with technology; and its development took effort. It was also observed that standards were duplicated in different countries using different things with different approaches; and there was some doubt about the longer-term commitment of governments. Another argued that: *'as there is no longer a job for life it's more important that qualifications are flexible, designed to suit multi-skilled roles, than necessarily focus on changing NOS'* (D4).

What is working well

Some felt that the NOS system was not working as well since the closure of UKCES that previously managed NOS across the UK which meant a loss of funding and other resources for NOS maintenance and updating. But, given what they were handed over, most thought that the management of NOS by SDS and the Devolved Administrations has been working quite well in terms of: the working relationships between the nations; their ability to sustain ministerial and senior management support and adherence to the principles of the 2010 Strategy; and progress towards addressing some of the issues.

The multi-year framework, allowing for a wider range of NOS suppliers, was felt to be a step in the right direction where there was robust quality assurance in place. Better accuracy and quality in Welsh translations had been observed along with increased demand. The knowledge, expertise and experience of many of those involved in developing, reviewing and using NOS was noted as an important success factor.

As a baseline for quality assuring qualifications, NOS were seen to be working particularly well. For example:

You're not having to go through that process every time with a new qualification, somebody has already thrashed out these ideas for you and put them into meaningful content – that's really helpful.
(B4)

For those developing or using SVQs, the direct relationship between NOS and SVQ units was thought to aid clarity, although one interviewee based in England suggested that: *'with a one-to-one relationship, flexibility in ability to evolve something is much more restrictive especially across the politics of the four nations'* (B1).

Challenges in using NOS

Several challenges were highlighted by NOS users resulting from policy changes in England, including the: *'loss of a lot of key bodies and their expertise'* (A8) and access to UK-wide labour market information and sector analyses that they provided; difficulties for those who operate across borders; and more fragmentation, competition and uncertainties in the marketplace for the supply of qualifications.

For example, some qualification developers operating across the UK talked about being presented with commercial, as well as logistical challenges, resulting from divergence in apprenticeship and qualifications policy.

. . . what this means in practical terms for us. . . is that in England we have to design a set of EPA products based on Standards [whereas] in the Celtic Nations we still largely develop old Apprenticeship Framework products. . . with qualifications which are still referencing back to the NOS. In very simple terms: 'whereas previously we could develop once and sell many, we now have to develop multiple times to sell into more fragmented markets'. (B5)

Such divergence in approach was also said to be a challenge for the Devolved Administrations that were dependent on England for their supply of qualifications. For example:

. . . it's been a challenge with awarding bodies and the financial viability of the continuation of qualifications . . . our DA is a very small proportion of the market and there has been some very worrying developments about qualifications no longer being available especially those with low numbers. . . we have to work very closely with our regulator and awarding bodies about extending qualifications. (A4)

Employers who operate across borders reported the struggles resulting from differences in the design of apprenticeships in England. As one explained:

. . . the lack of a UK approach affects our company because if we have a downturn in work for any of our roles - at the moment our electricians have bit of a lull in work because they are between contracts - we don't have any other bases [in this DA]. If we want to send apprentices to England, they would struggle... They may do the same activity, but how you sign them off will be distinctly different. Whereas in England there are numerous sites apprentices could freely move between, our apprentices couldn't go there and then come back so easily. So, we do struggle. (C1)

Budget and other resource challenges were reported at policy and regulatory levels, and by developers of standards and qualifications. These challenges were thought to be partly down to: *'how much resource - be it financial, human, physical etc. - the three Devolved Administrations or any one of those need, and are able to put in, to ensure that there is an infrastructure to support NOS'* (D3).

One of the biggest challenges of NOS was said to be the pace of change across sectors and keeping: *'such a large body of standards completely up to date'* (D7).

Findings

The turnaround isn't quick enough to meet the needs of my sector and the changes that are happening – qualifications may not be as up-to-date as they should be. Up-dating is a challenge when new treatments come in, new technical developments. Trends play a big part in what a qualification really should have housed within it. (D5)

[One challenge is] how responsive you can make them to the changing needs of the economy and how agile the process of setting and refreshing - a lot of that is to do with size. NOS have always been targeted at everything, so you move across a huge wide beast of a front as opposed to a much more focused productivity front aligned with industrial policy. (B1)

There were several resource and logistical challenges mentioned in relation to the process for procuring, developing and approving standards. For example, NOS development in recent years was said by some to have led to changes in the way people work that were not always for the best. For example, one regulator (A8) felt that the move to on-line meetings, rather than face-to-face, round-table discussions, can lead to lighter touch reviews.

For NOS delivery partners, challenges have included securing funding and convincing their organisation that that there is sufficient demand, then bidding, winning and having the right team to deliver (D2). It was said to be: *'worth it . . . but engaging the experts can be challenging when they are all busy'* (B2). Developers of standards and qualifications reported that they also had to put in a lot of effort and time to secure employer engagement and ensure consultations are inclusive of all sizes and types of companies, often using steering groups to address this issue. It was also noted that other stakeholders can suffer from survey overload.

The tight timelines resulting from the funding model and delays sometimes in issuing contracts to delivery partners, presented challenges for both delivering the NOS products and getting them signed off by the end of the financial year.

Because of the way that NOS are funded everything has got to be finished by February or March every year, by the end of the financial year. . . This year has been particularly bad because the contracts weren't issued until quite late, because they didn't get confirmation of the funding until late. So, from the standards setting organisation's point of view, they'd been working in a tight window to get the work done and that then makes even more of a tight window to get things submitted and signed off. (A8)

Some additional challenges related to how NOS are applied in qualifications with pathways because 'as the world changes and jobs become different, more multi-skilled, that can become a little restrictive'. It was also suggested that: *'it's difficult for companies when NOS still exist, but the VQ changes and a unit is no longer available'* (D4). Some providers said funding does not encourage use of NOS for accreditation of prior learning, leading to learners being asked to start again from scratch.

NOS content and quality assurance (including process)

NOS content

A meaningful discussion of the content of NOS presupposes certain prerequisites, which are outlined in previous sections of this report. Clear answers to questions such as 'what is the purpose of NOS?', 'who is the target audience?', and 'how are NOS going to be used?' – are imperative when developing NOS content. There should be a logical path leading to NOS content and its presentation.

The development and updating of the NOS content is crucial as it underpins qualifications and it is expected that the most up-to-date NOS are being used. In Scotland, each SVQ has a direct alignment to the NOS system.

New NOS are continuously being developed and old NOS updated resulting in a big database. There were contradicting views on how to rationalise this. Some interviewees argued that too many NOS exist; duplicates of NOS and NOS that are not used sufficiently enough should be removed from the database. Others, however, argued that some NOS support older professions for which there is still a need, albeit at a reduced level, and therefore should not necessarily be removed (see access).

So, what is NOS content about? NOS are described by interviewees as: '*consistent commonality around a body of skills, knowledge and competences across sectors*' (B5); '*the knowledge and skills that [employees] would require for a particular job role*' (B4); '*NOS has to be expressed in terms of performance criteria and knowledge*' (A8); or '*NOS define standards, levels of competence in relation to the skills and knowledge that have been agreed by disciplines or trade*' (C1).

Expectations of what the NOS content should entail include current skills needs, but also, arguably, future skills demands. While it was accepted that this was difficult to do, it was also clear that anticipating skills needs and trends and building that into NOS was essential to support the economy.

Many interviewees expressed a strong preference for building meta skills into the NOS system. These interviewees saw meta skills as the way forward. Other respondents acknowledged that they do not understand what meta skills are. However, the discussion with those who had thought about it and developed an understanding of them, generated interesting conversations. Respondents interpreted meta skills differently. For example:

I'm quite interested in the meta skills because . . . we do take qualifications as a proxy for skills and yet we know that in the workplace there are many, many skilled people who may not have a qualification that attests to that or they may have a qualification at a lower level than the skills they are actually demonstrating or indeed in a different sector altogether. (A2)

. . . my understanding of it would be mostly generalised skills . . . [They are] certain skills that are applicable across many different sectors, different occupations. Many of them are stuff that you would not expect to be getting updated regularly. Yeah, you have a core of things like that, there could be a value in that. *Are metaskills different to core skills?* I am told they are different to core skills, but I have to admit that has not been explained adequately to me. (A6)

I think there is a role in there for those generic or meta skills as they're calling them. . . (D4)

... there needs to be a difference between generic skills, employability skills, soft skills, whatever you want to call them and hard skills, and I guess if you look at construction, for example, the employability skills there were probably no different to engineering. However, the skills needed to build a wall are going to be totally different to turning tools. Question as to whether that then forms the basis of development of NOS in a particular sector or not. (D3)

There were also respondents who demonstrated clear thinking about meta skills, as one employer explains at length:

Meta skills and capabilities are quite often described as a mixture of technical skills and soft skills but actually they are not. They are an integration of a lot of different disciplines.

Another way people call it is experience. You have developed a meta skill in a particular area.

What I really like about the apprenticeship model which you don't get in the academic route you learn a little bit about your technical skills, teamwork, tech skills, project management, presentation skills, commercial financial and consequences of your actions. You are introduced to the customer bids, supply chains and suddenly you have a skill set that reaches across different domains and it is this cross domain knowledge and capability which is very valuable.

NOS needs to modify its top layer and make sure it speaks to meta knowledge and meta skills as well as the particular capabilities of plumbing or engineering where you need to know something. (C3)

These articulations suggest that skills that refer to more than just technical/job specific skills are considered valuable by respondents. At the same time, developing a common language that is used for meta skills and a joint understanding of what meta skills are, would be essential if they are to be built into the NOS framework. The discussions about meta skills suggest an area for future development for many respondents.

The NOS development and quality assurance process

NOS are managed by SDS and the Devolved Administrations who contract with suppliers within the Approved Framework that have sectoral knowledge and project management expertise to develop NOS content. Some of the current 22 suppliers are the pre-existing SSCs sharing their expertise. Technical writing can also be outsourced to make sure NOS are fit for purpose. Other stakeholders, including employers, contribute to and support NOS development at various stages.

The role of awarding organisations is explained by one interviewee:

We may have a contributing role to play in that we have some expertise that we would bring to bear or we might act as a sense check on the viability and relevance of NOS in terms of how they are expressed but, broadly speaking, NOS are developed by industry and employers who have an affiliation with the sector. (B5)

There is a well-defined process for developing/updating NOS. Below is an example of this process given by one interviewee, followed by another describing use of NOS in qualification development.

Example of the NOS Development Process

Our qualifications and standards function is to be the holders, arbiters, managers, coordinators of NOS as a product for our sector. We have 120 suites of NOS and each suite contains anything from 4 units of NOS up to 100 units. . . NOS is our bread and butter. . . and it is through their use which gives standardisation. There might be add-ons later, but the minimum level of competence and the way that is assessed will be in line with NOS. . .

We have a five-year managed cycle for NOS, so no NOS should be more than five years old. We have NOS working groups for a given trade or occupational area, and pull together employers from England, Scotland and Wales, and Northern Ireland, to review all the individual pieces of NOS, the units of NOS. We would discuss: *is that in, is that out, do we need to change any statements in any area, is there something which is current practice that we need to bring in – are there legislative changes, is there an assessment change or whatever?* . . . Then it goes back to the NOS working group who then put together the NOS in its final form and sign it off.

Then we would define, using government structures and design criteria, a range of products which can be applied in forms that fit the [respective] nations ... We would look at the minimum levels of competence and say: *'ok, is there enough in here for argument sake, to meet a Level 2 qualification in Wales - is there something in here to meet a Level 3 qualification in Scotland?'* If there isn't, we would have to add stuff to meet the recommended qualification structures. . . It is the awarding bodies that put together qualifications based on the recommended structure that we would put up on the website. NOS is based on full consultation with the industry as to the minimum level of competence so, if you're doing a VQ in the UK you will be doing the minimum level of competence required for that trade at that level.

(B3)

Example of Qualification Development

When we get a request for a qualification development, or we have our own ideas, we pull together a steering group with stakeholders including employers, colleges and people from the skills sectors. When developing the content, we talk to the professionals, but also use NOS alongside, as a supporting document, to make sure everything is included. . . .we have to look at the learning outcomes - deciding what the learning outcomes might be for each qualification and they are usually divided up into knowledge and competency, which is the same way in which the NOS is done - what's the knowledge requirements, what's the skills requirement; so they are really quite useful for that.

[The time it takes to develop a qualification] varies - we've got some that are one unit and we've got some qualifications, like some of the Health ones, they're massive so they can take a year. Once we've done the qualification design, we have to submit the structure, purpose and aim of the qualification to the Regulator and in our case we have to provide letters of support as well, show that there is sufficient demand. Steering Group members have a better idea than us [the qualification specialist] on what the demand is going to be. Normally, if people come to us and say *we need a qualification that's got so many users per year*, I divide that by 10. There are some sectors where you are never going to get a huge number of people doing the qualification, and you need to bear in mind those who still need a qualification in a specialised subject. But equally, we're a business and we don't particularly want to develop a qualification that's not going to be used - it's a waste of everybody's time.

Qualifications are normally reviewed about five years, but some of the content means that we have to review it a little bit earlier. Partly to see if it's working, but also because if it's a sector, like the IT ones, that does change so quickly - in five years' time it could be totally obsolete. . . .we do have to future proof the qualification. . . also sometimes the Regulator may say that we've only got the qualification for two years: *you can't have it for any longer because we're doing a sector review*.

(B4)

Consultation is a pillar for quality assurance and ensuring currency of NOS and qualifications. There was an extensive discussion of this with respondents, as they all had a view and/or experience of the process. Overall, interviewees agreed that reasonable consultation happens across the four UK nations. Despite England not being an active partner, SDS ensure that England is covered: *'the trailblazers' standards will often inform the review of NOS going forward'* (A9). However, at the same time there were mixed views on the extent to which consultation is representative, inclusive and sufficiently extensive.

Many interviewees expressed their concerns due to the heterogeneity of employers. Their characteristics in terms, for example, of size, sector, operation, geographical location, all impact on their possible engagement with the consultation process and on their skills needs.

Two interviewees commented on the difficulties of engaging SMEs:

Obviously, you get instances when getting employer input is sometimes difficult and sometimes delivery partners or development partners do have survey overload or whatever and that you have to be careful about that. I suppose that would be quite a hard part especially some sectors are

worse than others. For example, in [my DA], the Hair & Beauty sector - it would be quite difficult to get employers involved because it's usually solo businesses - people don't want to give up their time. (A9)

The difficulty is that the skills and things that are needed in large employers can sometimes be very different to those needed by small employers and yet small employers probably wouldn't have the time to get involved with the development of NOS. (A10)

Another respondent representing Hair and Beauty, however, reported on a successful consultation process:

[Employers] are quite small but the engagement is quite large. The last consultation that we've just had on the [. . .] suite was huge - an absolutely massive response. . . They all went out to consultation as separate NOS and the feedback was phenomenal. We had medics we had non medics, we had regulated professionals commenting, we had small employers commenting. So again, because of the networks involved we had good feedback, concise feedback and every single piece of feedback had been analysed and looked at and commented on and taken into consideration. We do get a very good engagement in our sector because people are passionate about what happens. (D8)

Consultation is planned in advance by the approved suppliers. They are required to deliver their promise in terms of consultation as one respondent details:

. . . then there's Part B for the NOS that confirms what the actual consultation was, and again we say: 'this is what you said you were going to do in Part A and this is what you've done in Part B'. If we approved Part A, and it's what you've done in Part B, then Part B is approved. If you've done something different, why is that? If you've done more than you said you were going to do, that's great. But you may have done less, sometimes it can be: why is that? 'We planned to do that but won't engage with all these organisations, and at the end up we could only engage with 80% of them. We tried this and tried that' and sometimes, often actually, the decision is made 'we've done all that's reasonably possible'. If elements of the sector are unwilling or unable to engage with you at a certain time, then we have to accept that. That's on a case-by-case basis, based on what was feasible, what is deemed success at that point. (A6)

Each NOS usually has its lifespan set for 5 years. However, where technology is involved, SSOs can signal that NOS need updating. It was signalled by most interviewees that NOS can lag behind in terms of currency due to certain sectors changing faster and more frequently than others. Also, due to the sheer number of NOS as one interviewee noted that:

Some of [NOS] have not been looked at for quite a long time, so they are not up to date and do not move at the pace we need. When I look at some of the NOS standards now, they are so far adrift from the change that has happened in the industry they became an unwieldy document to update. (C2)

Findings

The same respondent signalled that *'in retail the way we shop is very different now from 10 years ago'* (C2). Another respondent suggested that sometimes only part of the qualification needs an updated NOS, but the foundation remains static. It is also possible that while Level 2 and Level 3 remain the same, it is at Level 4 where developments happen fast, for example, learners have to use new machinery safely and understand how it operates. The changing nature of what is required from a learner and how to best equip them for employment is reflected on:

I think it's like anything, it's like a moveable feast. What we've got to make sure of is each learner that leaves us has the strength, the basic knowledge and skills to be able to go out and do a job within the industry. There are certain skills that don't change, it's just the add-ons, the new trends in treatment that come out. (D5)

The digital sector and other sectors that use technology were mentioned as the most fast-moving sectors, hence needing prompt update of NOS.

It was noted that NOS should reflect current skills needs and build in future skills demands. Therefore, each DA gathers information from different sources to identify occupational priorities, where economic requirements are growing or declining. They utilise, for example, their own and UK-wide LMI that forecast growth and decline over time, employer skill surveys, and regulators themselves gather information about sectoral and legislative changes. All of these lead to a list of priorities in the different DAs. *'Then [there is] a collective commissioning thing once a year to look at what the priorities are and help with safety priorities, legislative priorities, occupational change and trends and they will then influence our priorities in the coming year'* (A1).

Despite work being done about identifying future skills needs, it is complex and some respondents wondered about how this could be achieved:

Whether [NOS] could be used for [anticipating future demands] I'm not sure, but they would certainly benefit from regular updates just to make sure that the Standards reflect . . . practice. (D9)

Many interviewees considered the development of meta skills as a solution for learners to cope with change.

In summary, it is argued that the content of NOS is dependent on the purpose of NOS, the targeted user groups and what NOS are used for. There is a common understanding what the content should include: a set of skills and knowledge that is needed to do a particular job role. NOS are informed by employer groups and the content is consulted widely across the four UK nations. All stakeholders - policy makers, regulators, awarding bodies, Sector Skills Organisations and training providers - have a role to play in supporting both the development and updating of NOS. However, keeping NOS up-to-date is a clear challenge while essential as NOS underpin qualifications. This may be due to a large number of existing NOS, potentially an imbalanced voice of employer groups and some digital/tech sectors changing too fast. Most stakeholders acknowledged that NOS reflect current skills needs, but the extent to which NOS reflects future skills needs had mixed perceptions amongst respondents. Including meta skills in NOS was thought to be a possible way forward if there was a common understanding of them.

Ease of access to NOS

Issues about the online database were discussed by most respondents, reflecting that cleansing has been ongoing. Formatting and functionality had been improved over time, but it was said that: *'there is still a long way to go'* (A3).

It was acknowledged that a considerable amount of resources such as funding, time and effort, go into identifying the target user groups, and subsequently developing and updating the content and making NOS available on the website. Nevertheless, its functionality, size and the way it is presented were strongly criticised by both administrators and end users.

The different user groups had been using the NOS database for different purposes and to varying extents; very few interviewees used it on a regular basis and some interviewees had never visited the NOS website. Some stakeholder groups, such as regulators, reflected on their personal experiences. On the other hand, others, such as employers and training provider associations, seemed to be aware of what works and where improvements should be made in relation to the NOS website based on their colleagues' feedback. Those who had been using the website referred to two areas respectively: one that may be called the 'administrative end' and is used by administrators/regulators; and another area that is used by the 'public' (employers, training providers and learners). (Here we are not discussing the extent to which these stakeholder groups actually use the database or know of it.)

One interviewee from the policy makers group, who was using the database extensively for several different reasons, spoke about matching qualifications with NOS to check that the qualification matches with what is in the NOS. This task was not considered an easy task, however,

I actually resort to asking the Standards Setting Organisations to provide me with a version because I can't guarantee I will be able to find every one [on the NOS database]. (A8)

The same respondent also pointed out that features which were previously available on the website were simplified for the worse:

We used to have a facility in the past where you were approving draft NOS and final NOS, if you were happy with the content of some of the NOS you could approve some and just not approve the remaining, but now it doesn't have that facility, so if you find a couple of things that concern you in a couple of the NOS, but the rest are ok, you have to reject the whole lot . . . (A8)

Only a couple of respondents mentioned the necessity to simplify bureaucracy and technique for Sector Skills Organisations that have to upload NOS on the website.

Career services and career advisors were identified in many interviews as a potential user group of the database. The research included only one representative from this group, nevertheless it is worthwhile considering what was said. The respondent only visited the database due to the interview happening, noting:

Findings

Relatively easy to navigate in as much as you can simply put in a job title and get a load of standards up. But very, very detailed . . . , for example [our] main function in delivering careers advice and guidance, we probably wouldn't use that level of detail with our clients . . . We would be far more likely to use the job trend leaflets we get from [. . .] as that's got enough detail for us to work with clients to look at the key skills, the pre-entry requirements etc. . . for our purposes it would probably not be the level of detail we would ever go into. (D9)

Those interviewees who had been using the website, clearly articulated that the online database is not user-friendly, particularly for new users. They noted that the search engine is difficult to use and does not always come up with the wanted result. As two respondents said:

If someone is using it for the first time, and they've got an idea of what they're looking for, it should direct them to it and it doesn't. (A6)

Trying to focus on one specific [NOS] when you don't really know what you're looking for can be quite difficult, but if you've got an idea of what you're looking for you can apply the appropriate filters, and it's a lot easier. (D4)

The merits of the NOS database were equally acknowledged by many respondents. For example, once the user identifies and finds the appropriate NOS '*then it's very clear what they are*' (D6); '*it's just a click through and then it's a pdf in a standard format*' (D4). A training provider highlighted that those: '*working as a standards verifier or somebody working in qualifications development or someone who is aware working on HR aspects, they can actually access them - a useful tool*' (D2).

The size of the database was commented on a few times with contrasting messages. One respondent argued:

There could be [too many NOS] but then again if you think about the number of professions that are out there, I wouldn't say that there were too many at all really. (B4)

At the same time, some respondents suggested that the database was too big to function and asked for a cleansing of it, with overlaps and duplications removed. For some, this has already been happening whilst for others this is a task for the future.

The Welsh representatives noted that some NOS had been translated into Welsh, with an increase in the number of requests for translations.

In summary, most respondents commented on the NOS database even if offering contrasting messages about the size of the database and the detailed nature of NOS, for example. Respondents can be divided into two groups: one that use the database for administrative purposes, such as checking new and updated NOS and matching it with qualifications; and the other group that uses the public side. It was also suggested that the consulted and not consulted (for example learners) stakeholder groups use the database for a variety of reasons. It was clear that the database is not suitable for some potential users, such as career services. There have been constructive suggestions to improve the database including phrases such as refresh, update, simplify, give a makeover and cleanse.

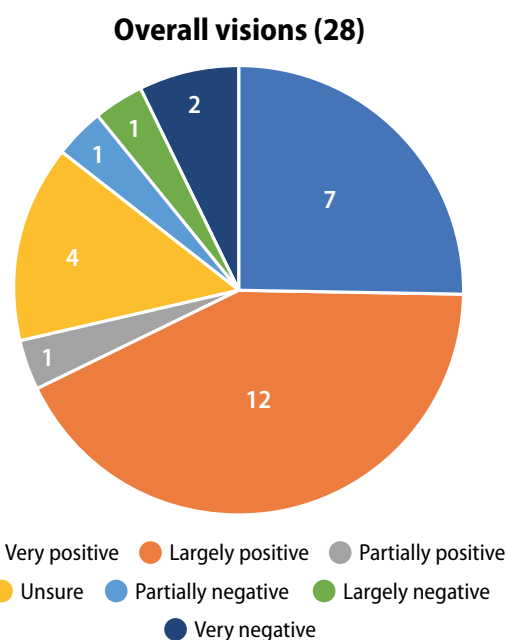
Vision and shaping the future of NOS

Visions of the future of NOS

The pie chart⁵ gives an indicative picture of how positive respondents were when asked for their visions of the future for NOS.

The clear majority of respondents (20) was positive that NOS had a future with nearly a third of those (7) being very positive, over half of those (12), although largely positive, having some caveats, and a further one who was partially positive.

The visions of four respondents were negative to varying extent and four more were unsure as to whether, or not, NOS had a future.



When looking at the sub-groups, it was found that all ten policy makers and regulators were positive about the future of NOS. Two regulators were very positive, with one believing that NOS play: *'a very important role in ensuring the portability of qualifications and for the workforce across different nations. . . and for learners'* (A9); and another saying:

I think they are still fit for purpose, a good way of outlining competencies. I know there is a lot of support. . . , certainly among awarding bodies that use the VQ and NOS system, they're delighted, so I hope they are here to stay'. (A8)

Other respondents from this group were largely positive (7); or partially positive (1).

Two of the five developers of standards and qualifications were also positive (one very and one largely positive). As one respondent enthused:

The future of NOS [in our sector] is very much bright - we are wedded to NOS, we love NOS, we understand NOS, we will continue to use NOS, we will use it to build products, to ensure we have a minimum level of competence in the UK. . . Yes, we do need to define other methods of demonstrating competence and that might not be through the use of VQs, . . . but our people will all be trained and assessed to the minimum level of competence and that all boils back down to NOS... (B3)

However, two were unsure about what the future held for NOS and the other was largely negative suggesting there needs to be: *'a much more sophisticated appreciation of occupational standards. . . [as NOS] never seem to capture the dynamism of what "good" and "better" look like. . . [or be tied closely enough] into productivity and industrial competitiveness'* (B1).

5. The pie charts in this section are included to give an indication only of the frequency of responses, as it should be noted that the research did not set out to gather quantitative data; the number of mentions was gleaned from analysis of interview transcripts.

Findings

There were mixed responses from employers with one very positive, one unsure and one largely negative about the future of NOS. The respondent who was very positive believed NOS has: *'a very bright future'*, with scope for *'the vision to be much bigger than it is currently. . . and agnostic about country and organisation. . .'* (C3). In contrast, the employer who was largely negative was concerned about: *'not being able to keep NOS up to date. . . [and having] enough resource to do what needs to be done'*, including *'the time needed for employers to look at such unwieldy documents'* (C2).

One provider was unsure about the future for NOS, but seven out of the ten providers were either very or largely positive (3 and 4 respectively), with one saying:

'I don't want different employers in different parts of the country developing their own stuff. . . because most job roles are going to be similar. . . so, let's keep NOS – it's seemed to have worked well for a number of years - the strong underpinning for VQs. . . in apprenticeships, they've been successful, so we have a good product here. . .' (D1)

Despite acknowledging competition from other standards and the need to harmonise with these, another provider was clear that: *'NOS would have a place in the big picture for the future'* (D10). However, two were very negative, with one expressing the view that: *'NOS is dead and I can't see any way of it being revised, given the various directions that people are taking. . . to be effective would use too much resource'* (D3). The other thought NOS was *'being dragged into a political debate'* and, although hoping its demise would not be allowed to happen, doubted its longer-term credibility and future given: *'the English not necessarily buying into NOS'*, and the *'confusing picture emerging in Westminster in relation to the longer-term commitment to NOS. . . a key factor for the future. . .'* (D7).

Shaping the future of NOS

Overall, as reported above, most contributors to the research were positive about the future and largely in agreement about the importance of NOS and its value to different users, although some were not wedded to the brand and there were a few dissenters, as well as expressed concerns in certain areas.

In reflecting on their knowledge and experience of NOS, respondents' suggestions for shaping its future were related to:

- policy and NOS management
- funding models/resourcing
- awareness raising and promotion
- the format and content of NOS
- the NOS website and database.

Broadly speaking, most suggestions for shaping the future of NOS were concerned with policy and management, for example to do with government commitment, four-nation engagement, policy direction and priorities. Recommendations relating to awareness-raising and promotion of NOS were the next most mentioned (although less than half the number of policy/management points). Other suggestions (each less than a third of policy points) were split more-or-less equally between suggestions about funding/resourcing, NOS format/content and website/database issues that needed to be addressed.

Suggestions relating to policy and NOS management

In summary, firstly, respondents were clear at the outset that to move forward, government commitment to NOS needs to be overt, for example, in policy documents and public communications. It was strongly recommended that to sustain NOS every attempt should be made to secure this commitment UK-wide, or at least maintain four-nation contact and close working relationships. To increase confidence in the longer-term future of NOS, several respondents called for more transparent engagement by England and acknowledgement that NOS still have a role. A few expressed the need for NOS to be de-politicised.

Secondly, it was suggested that there needs to be clarity in governments' policy direction and priorities for NOS. Some respondents were concerned that there could be an impact on labour force mobility from hearing (whether true or not) that, prompted by policy changes in England, Devolved Administrations may be having discussions about moving to alternative standards. As one policy maker expressing the importance of a four-nation approach stressed:

Prioritise what NOS are used for and I would put a pitch for qualifications being a high priority, then within that prioritise the standards to be developed - the occupational areas of sectors most interested in. Maintain four-nation contact and cooperation for all national things like occupations, standards and qualifications and so on, because it's important for apprentices and people moving in and out of our DA for work. (A5)

It was recommended that decisions about priorities need to be taken, not only in relation to NOS, but with reference to other policies that NOS may be expected to have some synergy. In the view of one respondent:

... one of the problems is that there are a number of different activities going on. ... and they don't always inter-relate. ... Discussions on the standards architecture for apprenticeships, the future of NOS... on the skills industrial revolution - these have been led by different bits [of the organisation] ... They really do need to take a holistic view as to how all these building blocks fit into the kind of strategy and vision the government has. ... (A3)

Better co-ordination of those responsible for each of the relevant policy areas was said to be required, and prioritisation of where NOS might be used and by whom, linked to capacity to deliver on promises. '*Capacity needs to be built in, people need to be trained up and come on board to make sure there is continued expertise... available*' (A9).

One regulator, although not so concerned about the NOS brand, agreed there is a need to build stronger links to a related policy area:

... focus on those occupational areas where there are substantial numbers of non-degree entrants. Design a slimmed down product - somewhere between the England version and the full NOS - and perhaps build a stronger link to where they are most used. ... build a stronger link with apprenticeship policy and framework review. ... (A10)

Findings

A standards developer suggested aligning NOS to: *'industrial strategy. . . where the industrial pushes are in specific sectors. . . [as opposed to] moving forward on all fronts in all industries [which would be] too expensive, unnecessary and wasteful'* (B1).

Suggestions related to awareness raising and promotion

Suggestions for shaping the future of NOS in relation to awareness raising and promotion were given by policy makers/regulators and providers of NOS. There were three suggestions from the former stakeholder group, with: one respondent highlighting the need to *'promote the value and quality of NOS'* (A6); one suggesting use of *'social media and marketing campaigns'* (A7); and another stressing that such activity was reliant on the necessary resources being in place, and used efficiently, to service potential demand.

There's a need to widen awareness of NOS: better promotion of the role of NOS across the UK (and beyond) and more proactive marketing to increase utilisation across sectors, use in employment, while recognising that any strategy has to be followed through, considerate rather than aspirational, as there is only a small pool of people to do the work and this must represent public money well spent. (A3)

Awareness raising and promotion *'at national, regional and local levels - by a range of agencies using various approaches. . .* (D10) was also important to providers, to communicate *'what NOS actually are and what they are about'* (D8) to a range of potential users. For example:

Every effort [should be] made to enhance the status and use of NOS. . . relevant to the needs of a wider range of employers from across the UK and other potential users, such as the voluntary/ third sector. In the future, how NOS is perceived outside of the UK should also remain of interest as this has been significant in the past. (D10)

Efforts should be made to: *'increase awareness of employers on how to use NOS and ensure training bodies and awarding bodies have a better understanding of NOS and use of specifications'* (D7).

One provider suggested that in promoting NOS more widely, it was important to consider how people can contribute: *'because wherever you give people an opportunity to have a voice. . . you get engagement and by engagement you can get usage'* (D8). Another provider went as far as to suggest: *'making training sessions on NOS mandatory for colleges. . . maybe a video or PowerPoint that could be made available as part of a staff development day'* (D2).

Suggestions relating to funding and resourcing

There was a strong call for a review of the funding model for NOS and related products as it drives behaviours. As one respondent suggested:

. . . the funding mechanism needs to be looked at. The funding is such a driving factor, big constraints in there. . . It's limiting the potential of what we need to produce and how efficiently and effectively it can be produced. (A6)

It was acknowledged that it may not be easy to increase funding and put in place the necessary resources, and both *'efficiency and value for money'* (D2) need to be considered, but one respondent suggested that every attempt should be made to:

... resolve the state-funded versus industry-funded debate. . . and reinvigorate dual state-industry funded support by articulating what NOS means in every jurisdiction, so people recognise that actually investing in this serves multiple purposes. The more fragmentation is allowed, the less commercial case there is to support NOS investment. (B5)

Although it was thought there should continue to be steady government funding, at the same time it was recommended that alternative sources should be sought, for example industry sources, to support the longevity of NOS. However, one respondent warned that care was needed in what is wished for, posing the question:

Do we want to plough millions into an infrastructure which would ultimately take funding away from delivery, when there may already be international benchmarks out there already that we could use? . . . Any skills strategy impacts on the amount of resource that is available to deliver the product. (D3)

Another respondent suggested that rather than worrying too much about how NOS is funded and done in each nation, governments across the UK firstly need to believe in and agree standardisation of competence, and then:

... where there is technical expertise to sustain minimum levels of competence through products like NOS, invest in that capacity. . . build world class skills systems and move away from NOS equals VQ. . . (B3)

Suggestions related to the format and content of NOS

Several respondents stressed the importance of ensuring flexibility is built into NOS development to: *'keep them up to date, ensure they reflect all the different occupational sectors of the UK [and address] holes in coverage* (D7). For example: *'given the rate of change, NOS could get out of date very quickly. The whole world of qualifications and standards is a very archaic one'* (D2); and *'there needs to be a driver to get qualifications more aligned to the 21st century, more flexible [in terms of] what jobs look like now and for the future* (D4).

Discussion around the potential role of meta skills revealed that, although many were unsure what meta skills are, it was thought that these generic type skills could possibly help in ensuring the flexibility and future proofing of NOS, and support workforce mobility.

I think that priority for NOS should be those competencies and skills that are generic - across multiple sectors - things like administration, IT and basic supervisory skills, regardless of which sector the individual works in. . . If they are core components, then they should be transferable. (A1)

Employers were clear about the need to ensure NOS content was kept up to date:

Modernise - review every 3 years as a minimum to keep NOS updated in the face of technology changes and meet the needs of successive generations of young people coming through who may have different expectations - reviews could be trade or role specific based on how fast they are advancing. (C1)

Keep an eye on the future, with a mechanism and oversight by awarding bodies and other stakeholders to sense check and update NOS at a pace. (C2)

While many respondents were keen that development of NOS content was as inclusive as possible, involve a range of stakeholders, one respondent argued that it would be better to start with leaders in industry that were known to have best practice:

... it doesn't have to be overcomplicated or over thought - it does need to involve industry – to start with industry best practice. So, identify and scope where best practice exists. . . Go to the industry leaders to make sure they are in at the start as opposed to everybody involved sitting round the table agreeing what they can all live with, and ending up with threshold levels again – for quality, productivity. . . If you set a *good* and *better* benchmark [not grading], that might help clear up some of the problems in writing NOS around occupational competence. . . (B1)

There were frequent references to the complexity of NOS and unwieldy nature of NOS documents. For example, even when familiar with NOS, one respondent said:

... when I first looked at NOS, I thought my head was about to explode because there is so much information that I don't think an employer, or a learner, needs. I think maybe something [is needed] to simplify outward facing information and then have the more complex operational information for those who actually need to use it. (A3)

Another provider suggested that to be useful in careers guidance, there needs to be simplified versions of NOS (D9).

Suggestions related to the NOS website and database

There was recognition that securing the future of NOS was, in part, dependent on potential users being able to easily access the required information. Views on the NOS database were mixed, reflecting the extent to which it had been used (if at all), with some saying it was very good, being surprised at what was there and the usefulness of information, and others suggesting that it was a bit unwieldy and difficult to navigate. For one frequent user, the NOS database appeared to work well for their purpose. They found it easy to access the information required at the time and produce, for example, Welsh translations of the public information. While another respondent suggested there was a need to develop a '*new repository to store NOS*' (A7), there was acknowledgement by others of the work put into the database that has 'kept it sustainable for 30+ years' and improvements already made to make it more user-friendly and purposeful.

In building on this work, it was suggested that, firstly, consideration be given to who is using the database, their purposes for using it and their level of knowledge of NOS and secondly more targeted improvements.

The search function is atrocious. . . it has already been significantly improved, but it's still not the best. Just now it's one database, but maybe if we had them occupationally based or sector based, different ways of cutting down the categories. (A3)

For some, a distinction needs to be made between the administrative and public sides of the database, with the: *'template updated to be more reflective of what really happens during the process and agreed by all DAs'* (A8).

There were several recommendations for tidying up, refreshing the database, with one policy maker advising: *'aligning NOS with SOC to form a skills pathway and help in analysing information. . . identifying where the gaps are and reducing duplication'* (A3). Another recognised the need for continued improvements to database search functionality, so *'people can pull out the skills and competence across different sectors, start to use NOS more readily as a workforce development tool'* and suggested there is *'scope for aligning it to other systems, for example to signpost NOS where they are common to the Trailblazer Standards'* (A1).

Conclusion

Purposeful sampling of stakeholder perceptions of the benefits and challenges in using NOS and visions for their future, drawn from 28 in-depth interviews, has elicited largely positive responses about NOS, albeit with some caveats. Stakeholders appreciated that the Devolved Administrations and Skills Development Scotland have been able to take forward management of the NOS system, including repurposing of the NOS database, despite reduction in budget since England withdrew from the UK-wide arrangement and loss of expertise due to the closure of some SSCs.

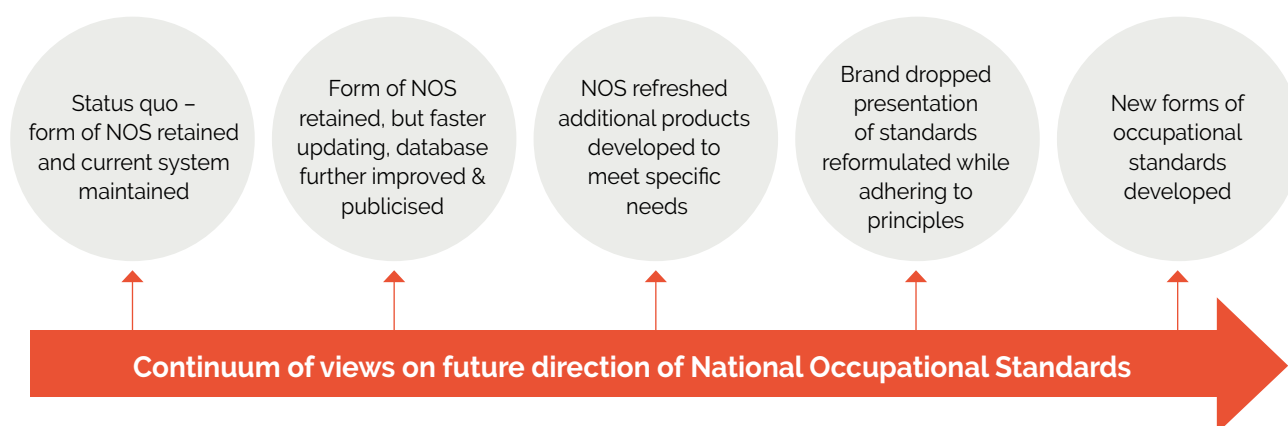
Overall, respondents agreed it was important to have common, guiding principles for standards of competence to support consistency in approach, preferably UK-wide, in setting industry benchmarks and measuring competency. Also, to support the transferability of skills and competencies and the portability of quality assured qualifications. Value was said to be accrued from NOS through collaborative work and sharing of resources and expertise between nations, to achieve alignment of systems and support workforce mobility. Employer-led definitions of competency and the common quality assurance system for ensuring currency and validity were also thought to be of benefit.

However, there was recognition that the NOS system was not without flaws and not all respondents were wedded to the NOS brand. There was concern that NOS were not always fit for purpose in terms, for example, of presentation and currency (especially in sectors subject to a fast pace of change), and that insufficient account was being taken of the flexibility needed in qualifications to cater for multi-skilled roles. It was thought budget and resource issues for NOS management may limit possible developments.

The analysis of research findings revealed that respondents' views on the possible future direction of National Occupational Standards could be grouped along a continuum, ranging from maintaining the status quo at one end, to developing new forms of standards at the other end. The diagram below reflects the range of views identified, but is not exclusive of possible futures.

It was evident that a few respondents were keen to maintain the status quo having invested in NOS over a long period and established their systems and products based on these, with associated income streams. However, without change dissatisfaction with NOS may grow and risk further loss of confidence that they are always up to date and flexible enough given the direction and pace of change in the world of work. This would preclude the active re-engagement of England and limit the scope for keeping up with other developments in the standards field.

Examples of research respondents' views on the future direction of NOS



The largest group of respondents, although also preferring to keep NOS in their current form being largely content with the level of detail, saw the necessity for further improvements to the manageability and useability of the database. Also, the effectiveness and efficiency of the updating process, coupled with better communications and marketing to increase awareness and understanding of the NOS resource and correct misconceptions.

Suggestions for reducing the size of the database included the continuing removal of old and under-used NOS and/or a more focused approach to selecting the sectors to be covered. It was said that NOS could be used to drive industrial strategy in specific sectors, to focus on competencies identified as most critical to the economy, instead of moving forward on all fronts in all industries (which may be beneficial in terms of inclusivity, but resource intensive). However, such an approach would risk further impact on the availability of qualifications with a low take-up, for example in traditional/heritage areas, a concern already highlighted in the current market by some in the Devolved Administrations. It may lead to a proliferation of other standards to meet sectors/occupations not covered by NOS, limit the transferability of skills and portability of qualifications, and confuse the market.

Both of the above sets of views, offer the advantage that NOS form and system are already established and familiar to those directly involved with NOS, supported by good working relationships between the three Devolved Administrations and consistency of message. Thus, there may be less disruption to the market. However, neither address issues highlighted by some respondents to do with the complexity of NOS and associated documents.

While the familiar format and level of detail provided by NOS met the purpose of some, such as those developing qualifications, for other groups of respondents, in particular employers and providers of careers guidance, the complexity of NOS and associated documents presented a barrier to use. Additional products were needed to meet the needs of these and other users, and the demand for more flexibility in how NOS can be used. For example, it could be shown how NOS could be used in combination, for example in modules, to underpin those work activities that are common across many occupations, and cater for labour market trends towards multi-skilled roles. Meta skills, the higher-level thinking skills, could also be highlighted to increase further the wider application of skills, knowledge and behaviours expressed in NOS and effectiveness of use in meeting changing demands.

Guidance, training materials and case studies could be developed to exemplify best practice in these areas, in diverse formats appropriate for their intended audience, for example to show the relationship between NOS

Conclusion

and professional standards to facilitate individual career progression, and to illustrate the business benefits for employers. These products, together with NOS, could be marketable beyond the UK, to generate additional income. However, developing such products would require quite significant investment over and above maintaining and up-dating NOS. There may be some concern from those in the market who already supplement their qualifications or training offer by providing a range of resources as part of their unique selling point.

Further along the continuum, it was evident that some respondents were not averse to dropping the NOS brand to make a clear break from the existing system and allow scope for reformulating the presentation of NOS to support different uses. The challenge was said to come in deciding where to pitch them: whether more user-friendly, read-able and more concise versions would be too general for some users to implement, for example for use as technical documents in developing qualifications. This is where there would need to be clarity about who uses NOS and for what purpose/s.

If resources allow, the website could be developed to offer a differentiated service: a multi-layered, interactive website targeted appropriately for specific user groups (e.g. general public, careers advisers, learners/employees, employers, qualification developers, standard administrators). However, there would need to be significant investment of time and other resources to reformulate NOS and develop the NOS website to serve the different users and purposes to which NOS are put. It would also pose logistical challenges during the development process and transfer to the new versions and require clear guidance on how to use the database and the status of the respective versions.

The most radical approach on the continuum, supported by a few respondents, suggests the development of new forms of occupational standards, informed by English and international models such as World Skills. Rather than developing threshold levels of occupational competence, it was suggested that best practice could be used to inform standards development. Careful thought would be needed to decide on the principles to underpin these new standards, for example the extent to which current NOS principles (e.g. employer-led, specification of competence at occupation level, a single portal with free access to all who want to use them across the UK) are considered vital.

There could be reconsideration of the merits of having one set of standards for use across the Devolved Administrations, as this impacts upon the nature, pace and feasibility of changes. For example, while some respondents found the one-to-one relationship between NOS and SVQ units aided clarity, a few felt this arrangement restricted the extent of change that could be possible. There would need to be maps to show the relationship between the new standards and those in other countries.

This approach offers an opportunity to re-envision occupational standards in considering how work is changing and how qualifications and apprenticeships need to be developed to ensure they are fit for purpose in the 21st century. However, it would present a further risk of fragmentation of the market across the UK, potentially undermining the transferability of skills and portability of qualifications.

The rapid pace of change, the complexity of the emerging technologies and the broader impacts of the 4th industrial revolution, coupled with the fall-out from the Covid-19 pandemic, mean that there will be challenges for governments in taking forward national occupational standards. They will need to think strategically, adopt 'agile' governance, continuously adapt to new, fast-changing environments and collaborate closely with business and civil society to be in a position to reflect common objectives and values and shape a future that

works for all. Given this context, it is essential to consider what NOS could offer and the changes necessary to contribute meaningfully to the national economy and personal career development.

In looking at the desirability and viability of possible futures for NOS (the above views are not exclusive), thought will need to be given to:

- the balance between potential advantages and disadvantages, and for whom
- level of support likely from the respective governments and stakeholders
- scope for change given other policy priorities
- the practical and financial implications for individual nations, their partners and NOS users
- availability of the necessary funding and resources to deliver what is required.

Recommendations

There are a number of underpinning considerations that are important in setting the direction for the future of NOS, irrespective of the extent of desired changes on the continuum described in the conclusion.

- Identify priorities in terms of the:
 - target user groups
 - purposes for using national occupational standards
 - sectors and occupations to be covered, exploring, for example, potential for emphasising generic and niche skills and those occupations identified in national classification systems such as SOC 2020
- Identify the underlying principles of NOS
- Develop a clear link between purpose, target group and needs with regard to content and presentation of standards taking into account different uses
- Consider the economic, social and policy contexts in which national occupational standards will operate, including their relationship to other standards and qualifications, and identify the key developments and needs to which they relate using transparent and consistent LMI and other data sources
- Identify potential funding model and the resources necessary to deliver what is required and re-visit priorities in relation to what resources will, realistically, be available
- Maintain an inclusive, employer-led approach to developing national occupational standards through consulting widely with target user groups and stakeholders to develop documents that are fit for purpose and target group, and user-friendly
- Develop the website/database to serve the respective user groups and ensure it is easy to navigate
- Strengthen profile of national occupational standards within skills systems through the development and delivery of an effective, targeted and ongoing communications and marketing strategy
- Develop an evaluation strategy to identify what works well, and the effectiveness of procedures to address any issues.

APPENDIX

Interview schedule

This schedule outlines general questions used as a guide for the interviews. It was adapted where appropriate to suit the different interview groups.

NOS INTERVIEW SCHEDULE

Thank you for contributing to research the Edge Foundation is doing on National Occupational Standards (NOS) for Skills Development Scotland to inform the NOS Governance Group's pre-strategy work on NOS. Before we start, do you have any questions about the research?

I would like to record our discussion to facilitate later analysis. Do you give your consent to this? What you say will not be attributed to you personally, nor your organisation, although may be quoted, anonymously, in the final report. You can ask me to stop the recording at any point.

Background – to start off with...

1. What is your current role and experience, if any, in relation to National Occupational Standards (NOS)?
2. How would you describe NOS (*understanding of NOS*)?

Purpose, benefits, challenges of NOS

3. Do you think it's important to have NOS (*why/why not*)?
4. What do you consider to be their main purpose?
5. What other purposes, if any, can they serve?
6. What are the benefits, if any, of NOS (*at national level, for employers, learners, others...*)

Working with/using NOS

7. To what extent does your organisation use NOS?
- 8a. For what purpose/s does your organisation use NOS (*e.g. in qualifications/awards, programme/workforce planning, HR functions, CPD...*)
- 8b. In what ways are NOS used for each of these purposes?
9. What works well in using NOS?
10. What are the challenges in using NOS and how are these challenges being tackled?
11. How well do NOS reflect the various competencies required in the sector/occupations covered by your organisation (*knowledge, skills, behaviours, practice*)
12. To what extent can NOS help to anticipate future sector/occupational needs and respond to changing employer demands?
13. Have you used the NOS website/database? If yes: how easy was it to access NOS (*use of search engines, website, database; use of help function, access to accurate Welsh versions*)? What, if anything, would improve access to NOS?

Future

14. Do you think NOS are used sufficiently (*in own organisation; sector/occupations covered; by other providers; in relevant nations of UK*)?
(If not, what would encourage greater use)?
15. What are the main barriers, if any, to using NOS (*at national level, for employers, other potential users, learners*)?
16. What should be done to overcome barriers to the use of NOS, and by whom?
17. How do you envisage the future of NOS (*is the model still appropriate; if no future, what alternatives are there/should there be to achieve the same purposes*)?
18. To shape the future of NOS, what 3 things would you suggest, how could these be achieved, and by whom?
 - 1)
 - 2)
 - 3)

Is there anything else you would like to say about NOS and/or the research?

Thank you for your time and contributions



About Edge

The world is changing fast and education needs to keep up. Edge is an independent, politically impartial education foundation. We want education to be relevant to the twenty-first century. We gather evidence through research and real world projects and partnerships and use this to lead the debate and influence policy and practice.

Edge believes all young people need to be equipped with the skills that today's global, digital economy demands, through a broad and balanced curriculum, high quality training, engaging real world learning and rich relationships between education and employers.

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