An analysis prepared by TMP of the challenges facing the Scottish Government's initiatives to increase the recruitment of STEM based teachers

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This piece of research was conducted in late 2014 and saw TMP engaging with a number of key stakeholders, including current STEM teachers across Scotland, careers advisors across a number of Scottish universities, individuals with a STEM degree currently employed within a commercial environment and current undergraduates studying a STEM related degree. These research findings are broken down into the constituent stakeholder groups followed by our recommendations and suggested next steps.

Careers advisors

When engaging with careers advisors, it is important to understand just how the role and function has developed over the last decade. This has sizeable implications for all organisations seeking to create, build or improve relations and partnerships with university careers advisors. These departments tend to have much smaller budgets than used to be the case. This means that careers advisory professionals do not necessarily have the bandwidth to visit employers' sites, instead they are largely reliant on those organisations visiting the university. This is unfortunate, as having the opportunity to visit an employer provided a sense of insight and cultural knowledge that is hard to replicate. Similarly, there are simply fewer people employed within careers services than used to be the case. Again, this means that employers or employers' bodies who wish to create relationships with such universities have to work harder to stand out, make an impression and pass on topical information.

Although employer profiles vary from one campus and university to another, it seems clear that certain employers tend to dominate. (This can often mean that students feel their choice of career is more limited than is actually the case and that there are not the jobs available that the rising economic tide is indeed creating). Typically the major business services/accountancy firms and the multi-national energy companies tend to dominate in terms of campus presence.

In contrast, and this is one of the most important findings of this research, there is no single body flying the flag for STEM teaching on Scottish university campuses.

Whilst careers advisors are taught that impartiality is of huge importance, it is perhaps no surprise that interest among undergraduates with a STEM degree to go into teaching is so low. They have little line of sight of teaching as an option and the careers dialogue is dominated by organisations with sizeable budgets, a focused and consistent approach and teams/individuals who are tasked to deliver aspirational careers messages on campuses. Perhaps of most importance is their regular presence – on campus, they are able to deliver skills sessions, informal meet and greet events and more stage-managed presentations – above all, they are there both to enhance the profile of their employer (and by definition their sector) and to answer questions/address misunderstandings that students might have around their name and career proposition.

> *'The teaching profession doesn't engage with us enormously'.*

Currently, teaching does not have this presence and cannot address the concerns and potential misunderstanding of STEM studying students.

And there remain misunderstandings and perceptional issues that teaching needs to address. Students can have concerns about the prospect of teaching high school students who have no interest in the subject and are forced to be there. Although the opinion varies from careers advisor to careers advisor, there is a sentiment that teaching across STEM subjects is only considered by those perhaps struggling with their degree and who are unlikely to attract the attention of the major commercial employers. Similarly, there are careers advisors who have concerns about teaching in terms of the apparent lack of permanent roles post probation even for teachers with several years' experience. There is another perception too around intellectual stimulation – maths and physics, for example, are challenging degree courses – certain students can have the opinion then that teaching is an intellectual step down from this environment.

'I suppose I could always teach'.

This last point leads onto an issue that came up across a number of different stakeholder groups. Studying a STEM subject at university – even if this is just at first degree stage – means you are pushing your knowledge and curiosity all the time. There are worries that pushing such boundaries consistently is not something you would encounter in teaching and that your subject knowledge would tend to either stand still or be heavily influenced by the curriculum (and not necessarily where you wanted to take your interest and study).

There is also a sense that the more proactive and assertive employers have accelerated their approach. Whereas in the past, employers were content to engage with and market to students in the final or perhaps penultimate years, it was now entirely normal for those employers to start promoting their careers messages to students in their first and second years. Indeed, students are being increasingly advised that such engagement and with it the prospect of work experience, placements and internships have become pre-requisites to securing a good graduate job post university.

Our careers advisors also questioned the degree to which teaching appreciated the sense of competition for talented STEM students. Was the teaching profession aware that attracting humanities students represented a wholly different challenge? And was there an understanding that the graduate jobs market of 2015 was a lot more buoyant and competitive than that of, say, 2012, and what the implications for teaching of this were?

There is a pragmatic factor around the delivery of a careers based message to STEM students. Unlike humanities students, students studying STEM subjects have both some linear career options (if you are studying engineering, you might logically look at engineering as a career avenue for example) and a sense that your skills and background are genuinely in demand. For students then with some very tangible career choices, teaching has to work much harder than when it is, for example, attempting to attract languages or humanities students.

'I do fear for the future of STEM teaching – we could be looking at a vicious downward spiral'.

(This point about linear progression can also work against the idea of some STEM students going on to consider teaching in schools – if you are studying engineering, there is a concern sometimes expressed that you lack the depth to teach either maths or physics. This can act then to dissuade certain individuals from taking any potential interest further).

If a small number of commercial organisations might be seen to be dominating the STEM careers skyline, then the impact of Teach First is also of relevance. Although Teach First only hires into English schools (right now), it often has a high profile on Scottish campuses. This is an interesting debate – for some, the impact and brand of Teach First has a beneficial halo effect on the impact and attraction of teaching in general. For others, however, it only succeeds in pushing the broader idea of teaching further into the shade. Teach First has a clear brand message which can contrast with the communications platform of general teaching.

When the teaching profession is considering engagement with STEM students, it is important to bear in mind that there is much push for these people to go on to further study – a PhD for example. This is far more likely to be the case for STEM based students than for those studying humanities. Lecturers and tutors can be hugely influential in this regard. (Clearly, it is within the interests of the universities themselves if such students continue on to further study).

Finally, our careers advisors were unanimous in their view that teaching faces a real challenge to effectively target STEM students. In terms of the competition, the money, the alternatives, so much is currently stacked up against teaching being considered by anything like enough students. These students often have a lot of academic contact time and have the challenge of finding time, particularly in their final year, of securing a good degree class whilst job hunting. They will then only apply to a very finite number of employers – if an employer or sector is not front of mind, they will simply not consider applying.

'Teaching needs a branding exercise'.

The role of a careers advisor is not simply to push a career option or employer at a student, rather it is to get them thinking about their skills and interests and to get the students themselves to work through an issue. Again, if an employer or sector is not front of mind, they are unlikely to arrive at the conclusion that this is the option for them.

If many of these findings suggest that the teaching profession faces a real challenge, then there is an element of truth to this. However, what is also very clear is the genuine interest that this stakeholder group has in teaching. They do want to see teaching representatives on campus – they particularly want to see great STEM teaching role models at university engaging with undergraduates. There are major challenges for teaching – not least a STEM student body which, right now, is not coming forward in any sort of numbers expressing an interest in the profession – but there is equally real enthusiasm that teaching addresses this challenge.

Professionals working in the commercial sector with a STEM degree/background

We spoke with a number of professionals, all with a STEM related degree, and now working in a range of sectors from IT, oil and gas to the finance field. Ironically with the exception of oil and gas, which is now experiencing some significant pressures as a result of the oil price halving, all our research participants felt both economic and employment buoyancy. They felt secure in their own jobs and that they had more choice potentially elsewhere than had been the case for some time. The jobs market for the majority of commercial professionals has seen a huge change in the course of just 18 months. This is unfortunate as the view was expressed that certain individuals had given thought, when prospects were anything but as positive, that teaching might be a possible alternative. That view has perhaps faded.

All the people we spoke with had had some interest in teaching. None of them has actually entered the profession but none of our participants had closed the door on this at some point in the future.

Perhaps the key to attracting people with the appropriate backgrounds into teaching is about timing. The majority of the people we spoke with were late 20s to early 40s. Without exception, they felt that the timing wasn't ideal. At their stage in life, they feel they have achieved a certain financial comfort level, which would be a significant wrench to leave behind. This is perhaps exacerbated by the prospect of having presumably no income during the year when they underwent teacher training. Financially this would be for most a major bridge to cross.

'It does to a degree come down to finances'.

Age was seen as relevant to this debate. Our group had concerns about leaving their current environment and starting afresh because they would be amongst a cohort significantly younger than them at a largely different life stage. You would potentially be out of touch with other probationary teachers, with the pupils and even with experienced teachers.

Again, several of this group now had their own family. And whilst this had begun to re-focus their thoughts around education and schools, it also impacted on their flexibility. Particularly those that had been with their current employers for a certain amount of time felt that they had earned the latitude to leave early from time to time or to attend parents' evenings or sports days. Would this be possible if you were teaching yourself?

This might be feasible if the transition into teaching was guaranteed. However, several of our group questioned what was happening within the sector. Indeed, some were confused by headlines that one day talked about a shortage of teachers and the next talked about cuts within the profession. Is teaching hiring or firing right now? This seemed to be a significant gamble to take in leaving a stable job for something with several question marks attached.

There was also a sense of confidence that the sector and their backgrounds had instilled. There are ups and downs certainly, but they had left university feeling as though they had options and that any number of employers were interested in their skills and qualifications. As a result, it felt as though they didn't need to look very hard for their next potential role – personal and professional networks would often provide these. Consequently, no one in our group had felt the need to look too far afield for their next job – which tends to distance teaching as an option.

Again, as our research participants had been working within a commercial environment for some time, they knew about the mechanics and process of changing jobs within their field. Although it was by no means impossible, the fact that they knew little or nothing about the full implications and considerations of transitioning into teaching was enough to put some off. Their advice then was that if the Scottish Government was serious about targeting people from this background, it should make the information as clear, accessible and easy to reach as possible. In a strong employment market, it didn't take too much to put off people already in work. Associated with gaining an appreciation of the logistics of job changing, was a wish to perhaps have a taster of the classroom environment before making any firm commitments. Was this possible? Our group felt that they needed certain clarity and reassurances before making such a significant decision.

'It feels like my career would be in limbo for three or so years'.

Without suggesting that teaching was lacking in status – although some did take the view that there had been a decline since their time as a pupil – there was an interesting dilemma in moving out of oil and gas or finance, which represented, in the respective cases of Aberdeen and Edinburgh, an essential part of the fabric of the city.

Picking up on the sense of working professionals perhaps looking back to their time at school, there are varying concerns about classroom discipline and the teacher/pupil dynamic. Largely based around second-hand views and media coverage, our group had concerns about the support a teacher received from the school particularly during times of potential confrontation. It felt to this research group that senior school management were often ill-equipped to deal with issues such as social media, drugs and discipline and were unable to back up a teacher in need.

'School management are unprepared and too scared to do anything about the discipline issues'.

Perhaps one of the major concerns such individuals had over a potential move into the teaching sector was whether this was a one-way journey. If the teaching sector wanted relevant individuals from a commercial background, was the opposite true? This is a major concern, as many individuals in commerce are aware of moving to an organisation that would embellish their CV and facilitate future moves. They questioned whether commercial employers would view a period of teaching if things did not work out. Would they be painting themselves into a career corner?

There was a fascinating response to the issue of scientific discipline. All of this group had enjoyed their time studying and had real affection for their subjects – some continued in the same field, whilst others had taken those skills and applied them in parallel sectors. There was genuine concern that the teaching profession faced struggles recruiting for these posts. The subjects were of huge importance to students and Scotland.

Associated with this was a question around CPD. This was of increasing importance to STEM professionals working in industry, keeping up with professional development. Again, if there was a chance they might at some later point return to industry, how possible was it to maintain their CPD? There was also a feeling that the competitive industries in which these people worked tended to inspire and drive innovation. This was exciting and kept people interested in a construct which was continually evolving. Once again, they wanted to have reassurances that STEM subjects within a school environment contained an element of forward momentum.

Many of the potential concerns this group had around a move into teaching were based around clarity and information – for the simple fact that these individuals were largely unaware that teaching might be interested in them. If this was an audience that was considered worth targeting for potential transition, then much of the messaging should be based around reassurance and clarity. Perhaps more relevant would be messages promoting teaching amongst those people who have left university within the last three years and were still somewhat unsure about what they wanted to do with their degree. There is also an opportunity emerging around Aberdeen. The sharp decline in the price of oil is leading to redundancies and if graduates from 2011, 2012 and 2013 are victims of this or feel they might soon be, perhaps teaching can fill this void.

Undergraduate university students on STEM courses

This is a hugely important audience in the context of this initiative. These are the individuals, in the main, that the Scottish Government needs to convince as to the merits and advantages of teaching. Our research involved two focus groups with current final year students and aimed to create understanding as to how such individuals currently view teaching and what might potentially be done to enhance this enthusiasm. The focus groups were facilitated by the careers services of Heriot Watt and Strathclyde universities.

From both universities – and other research exposure that TMP have had – it seems clear that despite the fact this graduate cohort is due to leave university at a point when the volume of available graduate jobs is increasing significantly, this is not something this audience perceives. Given that the recession/downturn of 2008-2012 represents a significant proportion of their adult lives, perhaps some residual doom and gloom is understandable. Undergraduates feel that true buoyancy has not yet returned to the graduate labour market and they believe that competition is significant – from their own year group and from those who graduated in the last 2-3 years who have not secured the jobs they might have wanted.

There is also a sense that on several campuses students feel as though they have little in the way of employment choice. They feel that the accountancy/business services firms, the banks and the engineering recruiters are dominating the landscape to such a degree that there can be few other organisations out there recruiting.

Although teaching is not the only sector to be put in the shade as a result of the dominance of certain fields, few if any of our focus group students had had any contact with the profession reaching out to them. There was a sense that this was not a sector interested in engaging with them.

This perhaps combined with the media's coverage of the education landscape has created a perception amongst many students that teaching is not recruiting in any sort of numbers. Well publicised public sector cuts have given the impression (in the absence of any more positive soundings – and this is an important point we will return to) that there are too many teachers and not enough jobs.

Whilst we had gathered together students with an open mind about the possibility of teaching, there were a number of concerns and reservations preventing the great majority from taking any potential interest further.

Although our groups were genuinely interested in the ability to inspire children in the role of the teacher, there were also a number of issues around that would require clarity.

Our group were concerned about what they perceived to be a repetitive element to teaching – spending time with either the same experiments or same children year on year. This sense of repetition also touched on the issue of stopping your own learning. That you would spend all your time focusing on what the curriculum suggested and little or no time developing your own interest and knowledge of your subject. There was a clear view that you were effectively taking a step back or, indeed, potentially unlearning what you had been exposed to at university. Our group were also of the opinion that there was a lot of auditing of your work – you would, as a result, have little in the way of freedom of scope or autonomy. You would be teaching by rote.

And this is a major issue for STEM students – not using their imagination appears completely at odds to what they feel science is all about.

Particularly for the tougher STEM subjects, our group felt that many pupils would be there because they had to be, not because they had made a positive choice, which was anything but the right atmosphere to impart knowledge.

There is also a clear feeling that teaching has a very quiet voice on campus. Lecturers and tutors will often quietly suggest that a student goes on to study a PhD or similar – no one is making similar noises promoting high school teaching. As a result, in the view of our groups, your perception of teaching tends to be highly influenced by your own school experiences. If you came across positive role models, then great, but human nature can often dictate that a student remembers the negative experiences of the classroom and make judgements on the teaching profession accordingly.

For TMP, this suggests that no one is shaping the image and projection of teaching careers on campus. As a result, the brand of teaching is being shaped by other sources, rather than the profession taking ownership.

Because of this lack of ownership, impressions and perceptions along the lines of 'if you can't do, teach' tend to circulate. Several within our groups saw teaching not as an option of choice but as something to potentially fall back upon. There was a clear view that it was perhaps easy to take teaching for granted – again, perhaps in the absence of a clear narrative coming out of the profession. This was in contrast to other teaching related propositions, such as TEFL and Teach First. It seemed to our group that there was a high profile and clear message as to what such options might provide.

Finally, although both our focus groups pointed to the size of the challenge that teaching faces on campus, there remains enthusiasm. (Some of this enthusiasm may be associated with the negative view of the student labour market – TMP have concerns that as and when students genuinely feel as though choice and options have returned, teaching, unless steps are taken, might struggle to attract interest from STEM students to an even greater degree). Our group wanted to have much more line of sight of what might be the advantages of teaching. They wanted to see early career teachers, perhaps just 2-3 years out of university themselves, spend time on campus, talking through what teaching really involved.

As well as providing a response to the competitive noises of other sectors, if teaching were to have a greater campus presence, this would allow the profession to address the perceptional issues that clearly exist. Above all, it would enable the profession to shape the dialogue, not simply to be the passive victim it currently is.

(There is also the feeling that as education becomes more vocational and more shaped around potential future careers, it will become harder and harder for undergraduates on such courses to associate themselves with straight maths, physics, biology or chemistry, for example).

In terms of the campus environment, perhaps the only individual who was very enthusiastic about pursuing a career in teaching, had had such interest at high school. She had a vocation which her time at university had done little to influence.

STEM teachers

Perhaps not surprisingly, our engagement with a wide variety of current STEM teachers was the most fascinating and insightful phase of the research. Our research saw us speaking with teachers with varying degrees of experience and tenure and from different parts of Scotland.

If much of this research will focus on how best to attract STEM talent into the teaching profession, we need to be mindful too of the morale levels to be found within the sector. Work, we would suggest, needs to be done around engaging current teachers and making it clear why they should remain within the profession and what they contribute.

Much of the focus of this section of the report will touch on why people remain in teaching and there are any number of positive reasons behind this.

'You can't explain the buzz you get from teaching unless you actually try it'.

However, there are some very clear challenges that people within the profession are currently struggling with. Perhaps the key challenge is around the financial cuts impacting on people's jobs and what they can do. People talked about having whiteboards but not the money to buy whiteboard pens. They talked about working in a global oil and gas centre and having to work with text books held together with tape. They are unhappy that opportunities for continuous study are not available for financial reasons. It feels as though teaching is happy to use probationary teachers for one year to fill a post cheaply. They talked about having open physics posts within their department and not being able to recruit a permanent role. There was a real concern that the profession is losing talented STEM teachers (and the rising

economic tide means there are more and more alternative career options available for those considering leaving teaching) and there is no capacity or money to replace them. For many within STEM subjects, the issue of progression had been impacted by the decision to do away with separate Heads of Biology, Chemistry, etc, to be replaced by a Head of Science. This took a layer of progression away from them and made the step up sizeable. This risks a downward spiral. A teacher leaving creates more workload for those remaining – as the school is often not able to replace – so making the likelihood of others leaving more apparent.

For TMP, however, there is genuine love for teaching amongst our interviewees. However, this love is perhaps focused on the classroom and their pupils rather than the profession itself.

There is a fascinating and concerning feeling that as a rank and file teacher, you can be cut off. You seem some way distant from the school management team and only tend to have contact with your Head of Department. Working in some of the more remote parts of Scotland – the Highlands and Aberdeenshire – can add to this sense of isolation. If you are ignored by senior management and the council, what does this say about your contribution?

Perhaps as a result of feeling cut off, our group felt that things were done to them rather them having a huge amount of influence and say. The curriculum appeared to be constantly changing and this had been hard and relentless for many teachers. They also cited the introduction of the advanced higher, suggesting that these would be introduced in May and you would be having to teach them the following month – this felt rushed and likely to be put even more pressure on the profession. You could also feel cut off in terms of support from senior leadership. One of our teachers had an issue with receiving verbal racial harassment. She felt the school was both ill-equipped and apparently reluctant to support her at this difficult time.

This plays to the lack of voice the profession appears to be suffering from. Even pupil reports had to be filled in using set phrases which were often inappropriate for an individual. It didn't feel for many as though they could use their own words. Again, the feeling that change happened to teaching not hand in hand with teaching was very apparent. There was also bitterness that much change appeared to come from sources and individuals with little or no understanding of the classroom. Change is perhaps inevitable in any environment, our teachers questioned how successfully that change had been positioned and communicated.

'There is so much change and so much unhappiness within the profession'.

And this was felt to be something of a missed opportunity for many STEM teachers. They wanted to see the correlation between great STEM teaching creating great STEM employees and contributing to the Scottish economy made much clearer.

Over the course of our research, there was also a feeling that teaching could work harder to address a sizeable amount of misinformation around the profession. We heard from a lot of current STEM students and those working in commerce around teaching forcing you to effectively stop learning your specialism. This was contradicted by our teachers – the feeling that in order to make science as relevant as possible to your class, you needed to keep a close eye on scientific discoveries and innovation.

Many of our teachers felt you had a significant amount of autonomy and control as to how you prepared your lessons. There is far more breadth and licence than many imagine. The profession, however, has not managed to communicate this to potential teachers. The same might be said for variety – again the outside world tends to feel you are teaching the same lessons to the same classes, day in, day out.

Whereas in reality, one of the major attractions of the role is exactly the variety of challenges a teacher encounters. No class will respond to the same lesson in the same way – there are so many factors that influence how your lesson will fare. Similarly, the red herring that pupils were far more disruptive than in the past needs to be addressed, particularly if this is putting off potential teachers. Whilst you had to be aware of the competition of X-Box, Playstation or the internet and prepare lessons that were both educational and interesting, there was no sense that discipline had declined.

There is a clear sense of the profession suffering a crisis of confidence. There was much talk about the lack of security and certainty when entering the profession. It feels counter intuitive for some teachers that the profession is apparently short of talent but at the same time, young teachers can find themselves in a hugely competitive environment even several years after their probationary year.

'70 people applied for a one year maternity cover post. Before that, I had 24 straight rejections'.

Our younger teachers we engaged with were all aware of friends who had trained to be teachers but couldn't find permanent work and had subsequently left the profession – it would be unlikely that they are talking about teaching in positive terms to their contacts.

Unfortunately, and particularly for those teachers who had had exposure to a classroom south of the border, there was a feeling that the grass in England was significantly greener. This touched on the advertising of vacancies, the protection of the relevant unions, the view that you got paid in England for additional responsibilities and enrichment activities, there was more support from the examining boards because of the competition and that there were separate science heads.

One of the most telling insights from the research touched on the conclusion that many teachers are the children or relatives of teachers. If you have teaching in the family, you are allowed a more accurate, balanced and persuasive view of the profession. In the absence of this, then misunderstandings and myths have become established. People are not aware of the profession advertising and producing a clear message of late. In this vacuum, it is easy for students on campus or indeed commercial professionals to come to their own conclusions about the realities of the classroom and the profession.

Again, this is a profession that offers much.

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*'Teaching has changed my life,
it makes me a better person'.*

But we would question whether the communications and branding agenda around the profession in Scotland is being shaped or owned.

Teachers are confused, they are tired, they are weary, but they remain passionate about what they do. External target audiences remain largely in the dark about what the profession offers – many of their assumptions about what teaching is really about tend to be contradicted by the experiences of teachers.

These two groups then need to be brought closer together. Teachers have never been invited back onto campus to discuss what it is like to be a teacher, but would be hugely keen to do so. At the same time, undergraduates feel that having exposure to teachers perhaps two or three years into their careers would be hugely beneficial when they come to make up their minds around career options.

A series of recruitment messages can be created and delivered in order to address some of the confusion and misunderstandings of external audiences. However, of equal importance is addressing the issues and concerns of current teachers. They want to have a sense of voice, influence, recognition and investment. They see some of their colleagues leaving the profession and have only to take a look at the buoyant employment market to understand that commercial organisations would be very happy to take them on board if they feel unloved by the teaching profession.

For TMP, these are the key learnings falling out of our research

• An understanding of the issues and challenges of the careers advisory service is important;

• They want to see more line of sight of teaching represented on campus;

• They want to see more line of sight of teachers on campus;

• They want to have a central body or team engaging with campus – aware too that this is an increasingly competitive environment;

• Teach First can dominate but it also represents how a brand, from scratch, can be created.

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• The jobs market in Scotland has turned 180 degrees in the last 18 months – interestingly, however, oil and gas is taking the opposite journey;

• For people established in the careers, the financial challenge is a major issue;

• Thought should be given then to targeting early career professionals who have perhaps not found their vocation or the second earner in a household;

• Commercial professionals know about changing jobs in their own field but have little idea about how this happens within teaching;

• They are making more and more use of both personal and professional networks in terms of job changing – does this then mean that teaching is harder to access?;

• They want a clear and central information source that outlines how such a transition might work and its full implications;

• They are unclear whether this move would be a one-way trip – this is important;

• Is teaching really recruiting? It feels from the press more like the opposite.

• Even for students unaware of the rising graduate job market, they have little notion that teaching is reaching out to them;

• There remain any number of myths and canards around teaching;

• There is enthusiasm for this as a profession (from a hypothetical perspective) but there is equally enthusiasm to see young teachers communicating their experiences;

• Again, there is a feeling that the sector is cutting not creating jobs;

• Teaching in high school feels more linear than the courses many are studying – can they join up?

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• Getting great young teachers onto campus promoting the profession with passion and enthusiasm feels hugely important;

• But thought needs to be given the environment into which new teachers will find themselves – people are tired, battered, without a voice and feel change happens to them;

• It feels like financial pressures are impacting on their ability to teach and to grow as teachers;

• They feel cut off and that their contribution is not recognised or communicated;

• The comparison with the teaching experience in England, for those who have thought of it, is unfortunate;

• Standing in front of a class and seeing them develop is hugely inspiring – the broader experience of being a teacher perhaps less so;

• Engagement feels as much a challenge as recruitment.

Next steps

• We need to come up with the value proposition with which to attract people into the profession;

• We need to confirm which audiences we should target – university students; early career commercial professionals who have not found their feet or vocation; young oil and gas professionals who are feeling the pinch; overseas students studying in the country;

• We need to give thought to who owns the campus message and delivery;

• We need to understand there is a sizeable competitive noise and what this sounds like;

• This however is meaningless until we address the concerns of current teachers – we should consider creating more effective and more empathetic communications with them to enhance purpose, progress and contribution.