

Some notes on the Green Paper, “Building our Industrial Strategy”, January 2017

Structure

The Green Paper is structured around ten pillars, as they are termed. We need to concern ourselves with the first, second and ninth of these, called respectively, “Science, research and innovation”, “Skills” and “Driving growth across the whole country”. Within each pillar there is set out what are seen as the opportunity, the challenges to overcome, what is already in train and what it is proposed the Government should do further. At the end of each pillar is a list of actions already in train relating to that pillar, the commitments made in the pillar and questions for consultation. It should be born in mind that none of the commitments made are consulted upon from which I assume they will be carried through. Most notably mathematics free schools such as existing at Exeter and Cambridge appear in the list of commitments for the Skills pillar and are not mentioned in the list of questions to be consulted upon.

The Skills pillar is the one most relevant to us and if you want to read any of the report then read the Skills pillar, pp 37-50, and the summary, pp 10-24. It might be noteworthy that the Skills pillar is the longest in terms of pages and comes second in the list of pillars.

Skills across the Green Paper

Previous governments, through various ministries, not just education, have issued reports concerning mathematics and skills, directly and indirectly. There is much in this Green Paper that echoes and takes further the skills theme.

Earlier Government reports were keen to set out and demonstrate the thesis that a growing number of individuals who were in low skills employment were increasingly been made redundant (and at a faster rate as they attempted to move from one such job to another) because of technology and automation. Eventually they were unable to secure employment because they lacked the skills necessary to do so in the new and growing fields of industrial activity, often technologically based. Thus industry had a skills shortage and the country had a growing number of its population existing on welfare, a burden it would be unable to sustain into the future. The only way to solve the problem was to increase the skill base of school leavers through curriculum change.

The Green Paper takes this a stage further highlighting not just the skills deficit for individuals and school leavers as a national problem, but for people employed in industries which are on the brink of closure or contraction and for areas of the country which are demonstrated in the paper to be economically below the average for the country as a whole in terms of GDP, wages and qualifications. Therefore one might expect that some of the measures within the Skills pillar are likely to be first established in the more deprived areas of the country.

Skills pillar in particular

The Skills pillar gives six challenges and with each one a set of actions to address that challenge, some which are already in place.

1. Significant problems with basic skills (numeracy and literacy but the focus tends to be on numeracy)

Actions: improve mathematics provision in FE Colleges, getting young people skilled for employment via the transition year and the Skills plan (both already in place), a Digital Economy Bill giving free basic IT/digital courses to adults in England who need it, digital content for the new technical education routes (see next challenge) will be defined.

2. Shortage of high-skilled technicians below graduate level

Actions: the creation of new technical education routes through reforming FE and beyond into a new system of technical education. This will be achieved by (a) clear, high quality routes for technical education – reformation of qualifications, (b) establishing high quality technical education providers with excellent teaching – some new build, new/better teachers of new content (c) higher level technical education and new Institutes of Technology in all regions (d) ensuring technical education routes are demanding – equivalent to those in rival countries e.g. Germany, (e) creating a course finding process for technical education similar to the UCAS process.

3. Shortages of STEM skills in specific sectors

Action: acknowledges increase in uptake of STEM subjects at university level but wants further increases; notes that in March 2015 a five year package was put in place to recruit an additional 2,500 specialist teachers of mathematics and physics and improve the skills of 15,000 non-specialist teachers in these subjects; says Smith review has identified a factor in the shortage of STEM skills, namely the take-up of mathematics, further mathematics and core mathematics – there is acknowledgement that the take-up of mathematics at A-level is as high as it has ever been but there are significant regional variations which need to be corrected – says Smith will propose solutions; with reference to mathematics free schools, the Government will consider how to spread the model of King's College, London, and Exeter across the country, seeking partners to do so to "deliver benefits for mathematics education in the wider community."; continue to subsidise STEM courses at universities and encourage the education sector to increase opportunities to grow STEM subjects.

4. Skills shortages in specific sectors forcing overseas recruitment

Actions: Claim is that the measures in 3 above will help but admits to not having a clear picture of specific shortages in specific areas despite several recent reports. Will work towards a single authoritative view.

5. Empower students, parents and employers to make confident and informed choices re education and employment

Actions: This is about getting higher quality careers information and advice and making it universal. Essentially the claim here is that they have already done something and will review the situation as well as looking at what other countries do, publishing a comprehensive strategy later this year.

6. Growing challenge of lifelong learning

Actions: This was rather woolly. They want to communicate in whatever way is possible with people who will need re-training, preferably at the point at which they need it rather than after the company has collapsed or the industry has contracted, and appear willing to try new methods that are largely community based.

The commitments given at the end of the Skills pillar include:

- FE to be a centre of excellence for the teaching of mathematics and English,
- Institutes of Technology to be established,
- Outcomes of the Smith review to improve the up-take of mathematics and reduce regional imbalances to be acted upon,

- Specialist mathematics schools to be established.

None of these commitments are referred to in the consultation questions which, as remarked earlier, might be taken to mean that the commitment will be seen through.

Tom Roper

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