Through the following talks, papers and reports, John Atkinson has explored systematically the question of what should graduates of civil engineering programs and geo-professionals be able to demonstrably do.

• In SFGE2012 in Galway, he delivered a keynote lecture, accompanied by a paper, titled "**What should geotechnical professionals be able to do**"? In this paper, he distinguishes among various levels of practitioners (e.g. civil engineering graduate vs geotechnical engineer, see Table 1), offers a list of core skills of geotechnical professionals (see Table 2) and then assigns skills to the different levels (see Table 3).

• In 2013, he prepared for TC306 a report titled "**Geo-engineering competencies**", which was included in the 2013 administrative report of TC306. In this report, he focuses on four job descriptions (civil engineering graduate, geology graduate, geotechnical engineer, engineering geologist) and lists the minimum competencies for each one. The report follows from the SFGE2012 keynote/paper, with few modifications (for example, in the SFGE2012 paper "Analyze stability in jointed rock" is a task for a geotechnical engineer or an engineering geologist, whereas in the 2013 report is a task for the less experienced graduate in civil engineering).

• In SFGE2016 in Belo Horizonte, in his John Burland Lecture, "**Basic Geotechnical Engineering Skills: What can graduates do?**", he further elaborated on the basic geotechnical tasks that a graduate from a civil engineering or an engineering geology program should be able to carry out in three areas: <u>model the ground</u>, <u>evaluate design parameters</u> and <u>design simple slope and foundations</u>. He offers a synthesis of these abilities as follows: "with a geological map and memoir, some tubes of soil from the site, a pencil and paper, 1st degree graduates should be able to produce safe and serviceable designs for simple foundations and slopes". The video of the lecture can be found at: http://www.issmge.org/media/videotaped-honor-lectures/first-john-burland-lecture