

Editorial

Matthew Coop

I am sure I am not alone in believing that while our discipline has grown immeasurably during the forty or so years I have been in geotechnics, it has also tended to fragment into discrete communities. We have an increasing number of specialist journals and conferences and that I suppose are an inherent consequence of growth, any community having its ideal manageable size. For *Géotechnique* the dangers are clear, specifically that we must not lose our wide-ranging tastes. New members of the advisory panel often ask me whether a paper they are assessing would not be better in a specialist journal. Often the paper is of such niche interest that that is true, but I am always at pains to insist that we must not lose the very best papers for any topic at all, or we will soon end up as a leftovers journal that only publishes obscure papers for which there is no specialist publication.

One form of fragmentation that many will perceive is that between research and practice, *Géotechnique* falling very definitely into the former camp, and I am sure that some will think that papers in it are too complex, theoretical or have no application. I don't think this argument holds water because when a *Géotechnique* paper has won the Telford Medal, the top prize for a civil engineering paper awarded by the UK ICE, it has more often been for work with immediate practical applications. But of course we must also publish that work that will only see application, if ever, in the distant future, or we are condemned as an industry to stagnate.

There has never been any doubt in my mind that *Géotechnique* is the world's leading geotechnics journal, but this is often difficult to prove using existing tools. As I highlighted in an earlier editorial (Coop, 2021), the citation patterns in geotechnics, that accumulate over very many years, are unsuited to impact factors calculated over two or five years. So in Fig.1 I have given the cumulative citations for full papers published in each geotechnics journal in the year 2013. As I pointed out before, these tend to be exponential because the number of citations per year just increases and for our subject there is no "half-life" or even peak of citations as publishers' models believe. The data have been normalised for the numbers of papers published in 2013 by each journal, so it's a form of long-term impact factor. There is a clear gap between *Géotechnique* and its four major competitors as non-specialist geotechnics journals. One suspects that the gap increases with time, but it is not possible to go back further because some of the journals are not sufficiently old. While of course I was the founding editor of our sister journal *Géotechnique Letters*, of which I am very proud, we cannot expect a short format journal aimed at fast publication to have the same long-term impact.

Possibly the most damaging fragmentation that from casual conversation many of us perceive around the world, is between the community of "good research" and that of "large government funding", the intersection in the Venn diagram of the two not being what it might. But is this just sour grapes by disgruntled authors of constitutive models of Byzantine complexity who find it easy to publish in *Géotechnique* but not to get government project funding? Perhaps it is the case that our researchers are intimidated by "sandpits" or "co-creation", they shudder at the question of what is the "societal impact" of their blue skies work, that they are lost in the "buzzword bingo"

of “inter- trans- and cross-disciplinary” research, or maybe they are just defeated by the need to think of ever more bizarre project acronyms? Each of these seems to be a pre-requisite to funding that would surely have made Skempton or Bishop weep.

Whatever the cause, the division seems to be borne out by the evidence - I shall confine my analyses to research papers from UK based authors for which I can most easily find the data needed. Figure 2 shows a chart that breaks down the UK based recipients since 2000 of the four major prizes given in the UK that can be won by geotechnical research; the Telford Medal, the George Stephenson Medal (second prize across the whole of Civil Engineering), the ICE Geotechnical Research Medal and the British Geotechnical Association (BGA) Medal. What it shows is that *Géotechnique* dominates, as might be expected given that three of the prizes are for ICE journal papers. The shocking finding though is that research that is not funded by a project grant from the UK EPSRC (Engineering and Physical Sciences Research Council) dominates the prizes. The picture becomes starker when you realise that half the total of EPSRC grant funded winners in *Géotechnique* came from one spectacularly successful project.

Figure 3 shows even more alarming data. I went through the list of EPSRC funded geotechnics projects from 2005-2010 that had a value over £100k and then checked how many papers each had published in *Géotechnique* from the award of the grant to the present day. My data are limited to what I can easily find by way of acknowledgements to funders so there may well be inaccuracy, but apparently most of them did not manage to publish even one paper in the best geotechnics journal in the world. This could be to some extent people forgetting to acknowledge their funders. But still I find it worrying, given the financing they have had and the shoestring budgets otherwise available to researchers in the UK.

From conversations with friends around the world, this seems not a state of affairs unique either to the UK or to geotechnics and I imagine that divisions that started decades ago are now perpetuating by self-replicating generations within each camp. Large funding for projects and fellowships requires presentational skills in funding interviews that seem to have no possible correlation with research ability, but which are judged by those of us who have been successful precisely within that system. I imagine that grant recipients will protest that they prefer to publish in specialist or more “applied” publications. I think I have debunked that myth and my challenge to recipients of research grant funding is to join with us and publish in *Géotechnique*, the best geotechnics journal in the world.

Reference:

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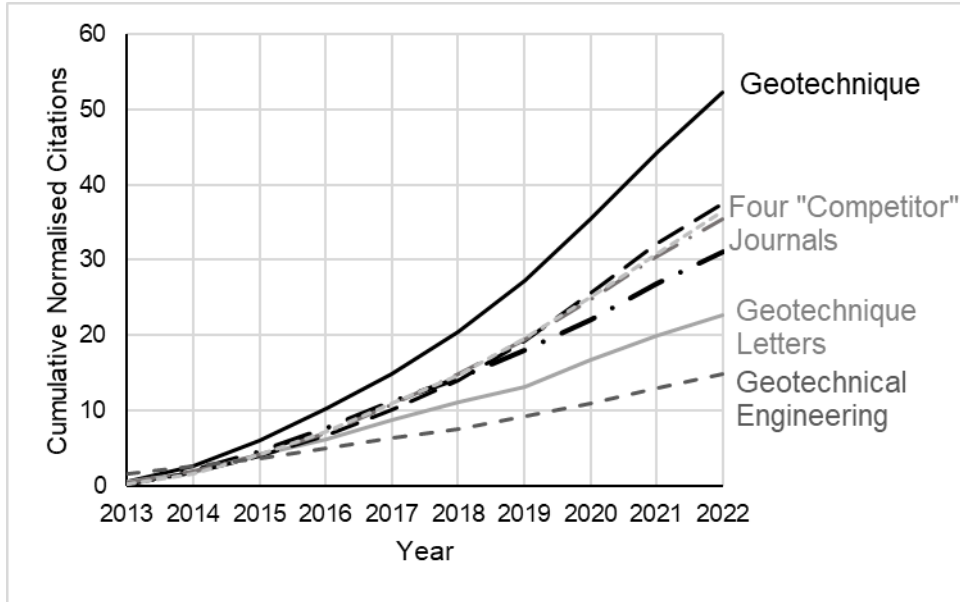


Fig.1 Citations to full papers published in geotechnics journals in 2013.

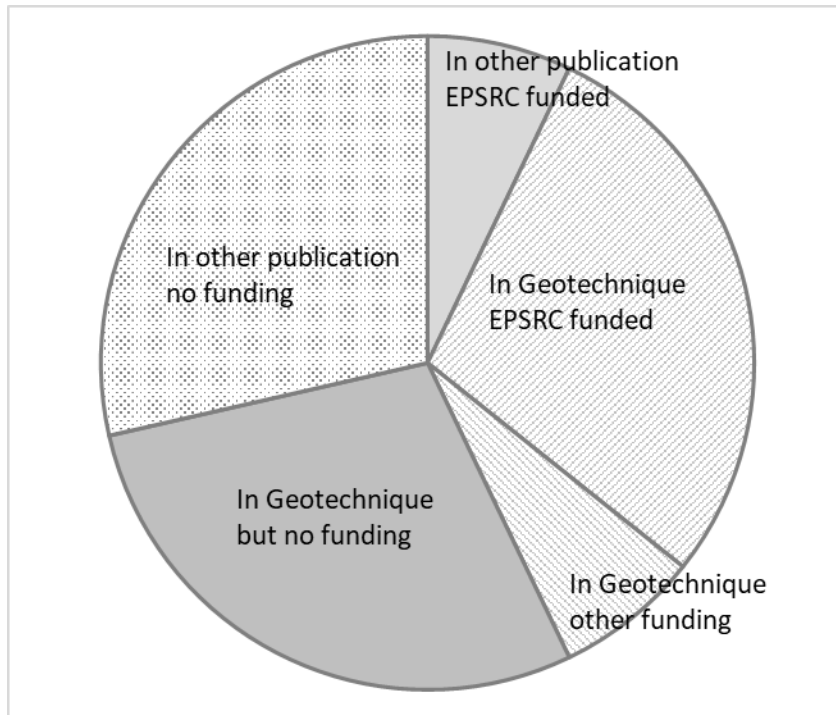


Fig.2 Distribution of major UK based prizes amongst UK recipients since 2000.

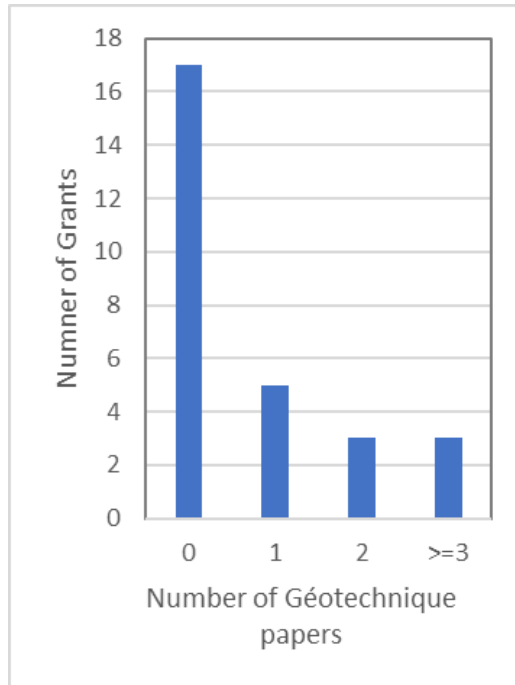


Fig.3 The numbers of Géotechnique papers from large EPSRC funded projects between 2005-2010.