

## ***Interactive comment on “Editorial “The Interdisciplinary Nature of SOIL”” by E. C. Brevik et al.***

### **Anonymous Referee #1**

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In the editorial paper of the new journal SOIL the authors try to combine text book knowledge, societal and scientific challenges and very recent findings of soil science. That seems to be an impossible task. Mostly, the authors did a good job to get this done and to come up with an excellent editorial paper advertising the new journal and give a lot of convincing arguments for the need of SOIL. The dilemma of this approach, i.e. being very basic but asking challenging questions, is just visible at some parts (e.g., section soil and water). I assume that this dilemma is the reason that the paper is quite long particularly for an editorial paper. I would suggest to go again through the entire manuscript and to remove some of the examples in order to get the paper shorter. On the other hand, references have to be added for all of the given examples / arguments.

C165

My detailed comments: Abstract: I would change the sequence of the “issues impacting the world’s biosphere that require an in-depth understanding of soils”. In my opinion issues as food, water and energy security might be the most important ones. Page 431, lines 10-14: Please rephrase – the sentence is too long at least for an abstract.

Page 433, 434, lines 24-9: give references Page 434: I would highlight that we still miss the link between diversity and functionality of the soil microbial community. Page 435: I do not like the title of this section. What’s about ‘Soil and global biogeochemical cycling’? Page 436: The NIR example is not very convincing because it does not solve the problem of detecting small changes in C stocks taking the large uncertainty in estimations of the bulk density into account.

Chapter 6 is by far too long.

Table 1: Differentiation between the first (formation, texture and structure) and the second set of soil properties (chemical structure and fertility) is a little bit arbitrary. I would remove the term ‘texture’ from the first part and I would change ‘chemical structure’ into ‘chemical properties’. Furthermore, I would add ‘consumption’ as an important mechanism to ‘Oxygen levels’.

Figure1: Please use the same orientation for all of the different parts of the global N cycle (‘Global fertilization...’ is in an opposite direction).

In summary, I recommend to accept the paper after minor revisions.

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C166