

Interactive comment on “A web based spatial decision supporting system for land management and soil conservation” by F. Terribile et al.

F. Terribile et al.

fabio.terribile@unina.it

Received and published: 21 April 2015

We thank referee 2 for her/his comments. Here some replies/comments to the main issues posed by the referee 2.

We are happy about “I think that the presented tool, is valuable”. But we are wondering about the other statement “Apparently, you find a GIS with a system to make queries”. In fact - as we were trying to say in our large literature review - Spatial Decision Support Systems and Geospatial Cyberinfrastructures are important – already established – fields of research. Then with this paper we aimed to show that suggested solutions are scientifically innovative and soil scientists have to use them to embed in a unique tool the complexity of the soil system. In fact – considering the key soil importance in land management - there are plenty opportunities. With this type of complex tools we can

C451

make soil information/modelling operational through the web. Then all the above has little to do with a GIS system to make queries. . . Just for example, the innovative “real time answering” mechanism we employed isn’t a simple queries tools, because it is based on an automatic detailed analysis of errors and gaps in the daily meteorological data. This, in turn, will allow the users to produce every day a different result, based on the strong dynamic of the environment. At our knowledge, this opportunity is very innovative and greatly differentiates a simple web-Gis with queries from our system. The referee asked to work on two major issues 1) Readability meaning restructuring the whole paper 2) End Users and Impact Measurements

In terms of readability he suggests the followings: “Introduction: where you explain the functions of your tool (as in Table 3, structure and models). “Material and methods. 2.1. Tool/GUI (architecture) “Results (examples of application, impact measurements “Discussion “Conclusions

The problem of the suggested moving of some results in the M&M section relies on the evidence that the major result of our (5 years) work is the actual building and implementation of the Geospatial Cyberinfrastructure (GCI). Then our results must be the GCI itself in order to let the reader understand problems and approaches if he aims to replicate it. Then we acknowledge that we have to reinforce case studies (even if in our paper this were just 2 of the many examples of use). Here we must also recall that our paper is very much organized in similar ways of other similar paper on other topics (e.g. for forestry: Fegraus, 2012). An alternative – that is also largely applied in many other papers - is to entirely skip the classic Materials&Methods, Result scheme (e.g. Young et al 2011) producing a unique explanation of the system. This approach may be also feasible since for this type of work some methods are results themselves. But this may reduce readability. Considering the 2nd issue dealing with End Users and Impact Measurements. Here we are confused. Despite the large reported literature review, we could not find one single paper dealing with evaluating the impact of a Spatial Decision Support System. Of course we acknowledge the importance of the

C452

issue but this maybe the object of a paper for other type of journals (e.g. policy oriented or socially oriented). In the paper we indeed emphasize the importance of end-users in developing our tools (e.g. joint meeting) but again in this paper we aim to report about how to build a soil based Geospatial Cyberinfrastructure. The use of the system can be explored next years (our last release is 31 December 2014). Finally – from the referee comments - we acknowledge the difficulties of our community in approaching the complex topic of Geospatial Cyberinfrastructure but it would be a pity if similar papers will not find space in our journals. We feel that soil scientist must jump on these new approaches to deal with the complex issues embedded in the sustainable land management.

Interactive comment on Solid Earth Discuss., 7, 661, 2015.