Interactive comment on "Hydroinformatics education – The Water Informatics in Science and Engineering (WISE) Centre for Doctoral Training" *by* Thorsten Wagener et al.

Anonymous Referee #2

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General Comments:

Wagener et al. are introducing the doctoral training program WISE running for now 7 years between the Universities of Bath, Bristol, Cardiff and Exeter. They motivate their approach, differing in several well described aspects from the standard 3-year doctoral training, by the need to improve the coding skills of trained water practitioners and scientists to handle the many new data and sensor challenges of the 21st century. They argue that neither a pure water scientist nor a pure computer scientist is fit for the challenges ahead and that their interdisciplinary approach bridges this gap while providing a fruitful and supportive environment for PhD candidates.

The paper is well written, well-structured and easy to read. I fully support sharing outcomes and experiences from new doctoral training approaches to hopefully foster a community learning effect in adapting the often ancient mechanisms of doctoral training.

While I fully appreciate the goal to spread the ideas implemented in the WISE CDT program to potentially inspire other educators, I would wish for the paper to advance from the description of the way the program is working to also offering a bit of general advice and some lessons learned.

Specific Comments:

The last section is named "Conclusions and Lessons Learned". While I can identify the "Why", "What" and outcome I am missing the section on "Lessons Learned". Also, the abstract states that "We conclude with an outlook for PhD training". I would appreciate if the authors could indeed give such an outlook and mention some lessons learned. Please clearly state and condense what in your experience/your surveys identified as helpful and beneficial to the PhD program and should potentially be incorporated in future PhD trainings.

On a similar note - is there a chance to use the ideas of the WISE CDT also for smaller groups/ doctoral programs? What are the "must haves" of modern doctoral training (according to your experience/surveys) that can even be implemented in individual supervising?

The paper currently highlights the positive and well working aspects of the program. But I am sure there must have been several challenges along the way. For the initiators and supervisors as well as for the students. Could you please elaborate on the difficulties and challenges of the process and how they were solved (as already partly described in line 269)?

Regarding the student experience, I was wondering in 3.1. "Student Participation and

Feedback" if there were also less favorable comments in the student surveys. E.g. that students feel lots of pressure, suffer from a high workload or similar? If so, what percentage of the total answers were less favorable? And what was the focus of their concern?

The authors mention different survey results several times. Could you please give a short overview (maybe at the beginning of 3.1.) of the different surveys conducted and specify the scope of those surveys? Is it always the same survey? A yearly ritual? Is it mandatory? What kind of questions are part of the survey? How are the surveys evaluated and used?

Minor/Technical Comments:

It seems only Fig 1 and Fig 6 are referred to in the text. Please add the other figure references to appropriate positions in the text or consider their necessity.

Line 19 – shouldn't this say over 80 candidates as line 375 states 84 students were recruited?

Line 22 – this might be 7 years now?

Line 72 & Line 379 to 406 – are the WISE CDT PhD topics indeed correlating with these ambitious goals? As a reader I would find it helpful to have a short list of example PhD Topics that came out of WISE CDT to assess this myself.

Line 137 – writing 8 as eight?

Line 147 – it would be nice to have a short information in what kind of setting the students were making these comments (probably the/a survey?)

Line 195 – After "Water Hackathron" comes a dash which ends with a bracket

Line 216 – about the "PhD progress monitoring meeting": Who is assessing the progress?

Line 244 – What is meant by regular? Once a month? Once a year? Or at least: What's the aimed for regularity? Same for Line 263.

Line 355 – The authors describe one specific outreach example, but can there be a short introduction to the outreach ambitions of WISE CDT? Is this a specific goal of WISE? Can any other examples at least be named after or before describing the specific example?

Line 377 – I was wondering if the PhD candidates are provided with sufficient funding when entering the program or if this is a separate issue. Do they get stipends? Does funding get better when collaborating with an industry partner?

Line 382 – possibly include reference to Figure 7