164 Ashdale Avenue
Toronto, Ontario
Canada M4L 2Y9
+1 (416) 435 9779
gvwilson@software-carpentry.org
http://software-carpentry.org
July 2, 2013

Dr. Hans Fangohr
Faculty of Engineering and the Environment
University of Southampton

Dear Hans,

I am writing to express my strong support for your proposal to create a Doctoral Training Centre focused on Next Generation Computational Modeling. As you know, computing is as important to 21st Century science as telescopes were in the 19th Century and particle accelerators in the 20th. However, most scientists are still never taught how to design, build, maintain, validate, and share software productively. I created the Software Carpentry programme to help address this by teaching scientists a small set of core computing skills; while the program has been successful, we recognize that it is the bare minimum today's graduate students ought to know.

Your team and I share the belief that training and increased professionalism is key to the effective use of computing to support research, both to make better use of the scientists' time and to increase the value of computational research by, for example, making it easily reproducible. I therefore welcome your plan for a new DTC that will delve more deeply into specific topics and skills, and focus on particular academic areas: your students will have a very rich training experience spread over the first year of the programme that covers essentially all Software Carpentry topics combined with simulation methodology and high-performance computing, and at least 3 years of experience of applying these skills and using computation in a research context. Your students, once graduated, will be computational leaders who shape and direct the computational research and development in the future.

Software Carpentry's partnership in the UK, with the EPSRC-recommended computational training for PhD students that the Software Sustainability Institute provides, has proven very fruitful. I would therefore like to offer to support your centre by sharing our teaching materials and experience, and would like to be involved in helping to plan ways to teach and learn computational competence for scientists with you and your students. I would also very much like to involve your students as teachers in the Software Carpentry programme and offer my support to make this happen, both directly through our instructor training programme and by becoming a member of your advisory board.

Sincerely,

Dr. Gregory V. Wilson
Project Lead, Software Carpentry