



MNM

TEAM

MUNICH NETWORK MANAGEMENT TEAM

ISGC 2017 Environmental computing workshop - Introduction

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Motivations – historical perspective

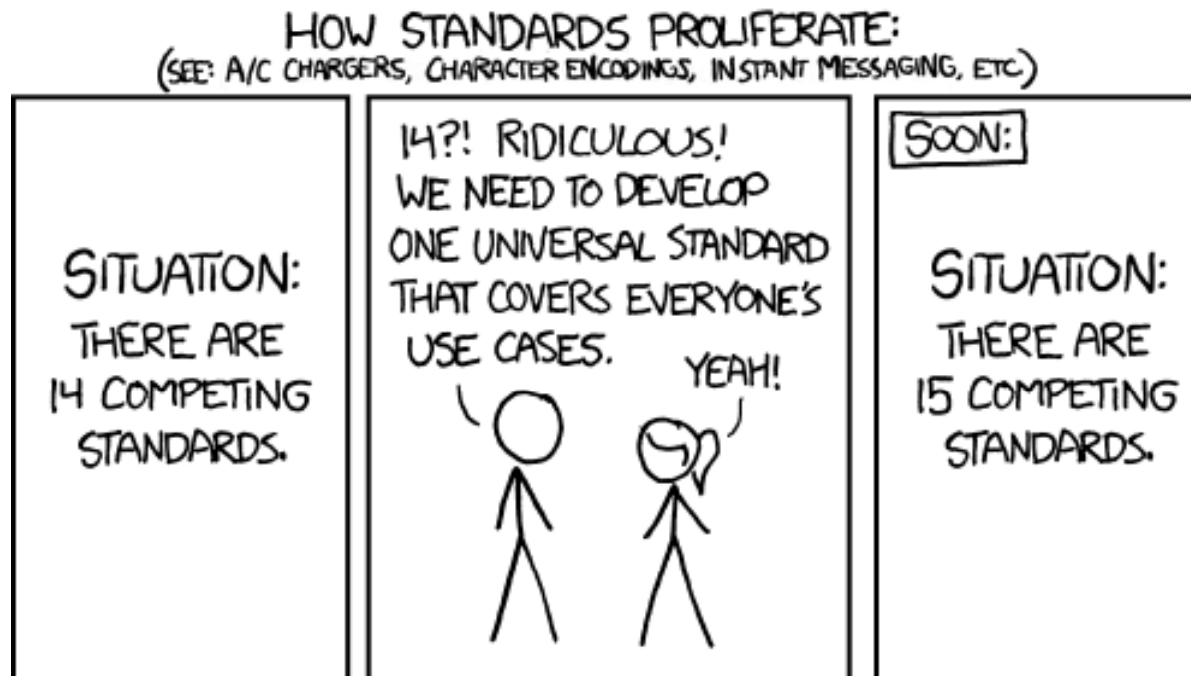
- Observations during the last 10-15 years of bringing new applications to top-level HPC
 - Similar questions, stumbling blocks, issues with vocabulary
 - **Can we streamline this process?**

- Increasing number of inter-disciplinary environmental modelling projects
 - As above, but a multi-party phenomena
 - **Can we provide both IT services and facilitation**

- Reuse tools across disciplines
 - Generic components: workflows, data mgt,...
 - Framework reuse (from AMUSE to OMUSE)
 - **Can we support consolidation of the shared “toolbox”**

Aren't people already doing all this?

- Perhaps - but it seems that many of the interest groups are
 - Focused on specific technologies (supercomputing, big data,...), or
 - Specific discipline (seismology, meteorology, climate,...), or
 - Specific problem ("environmental modelling for X")
- => **We see demand for a complementary, open network of generalist (environmental computing specialists)**



What we need?

- Gradual (self-)organisation
 - Sharing experiences
 - Networking, community building
 - Collaborations, projects
 - Sustainable structures
 - Formalisation of curricula
- Suitably fuzzy definition
 - Actionable knowledge, non-trivial compute/data challenge, multi-disciplinarity?
- Openness
 - To new research questions
 - To other communities sharing the area of interest

■ Today's “suitably fuzzy” agenda

Agenda – sessions 1 & 2

- *Matti Heikkurinen* **Introduction** 11:00 - 11:15
- **Keynote: Numerical Analysis on Mesoscale Dynamics of the Extreme Rainfall and Flood Event (May 2016) over Sri Lanka**, *Dr. Chuan-Yao LIN* (11:15 - 12:30)
- Lunch 12.30 – 14.00
- **Parameterization Study of Chemically Reactive Pollutant Dispersion using Large-Eddy Simulation**, *Dr. Zhangquan WU* (13:30 - 14:00)
- **Parallel taxonomic classification algorithm for metagenomic sequences**, *Prof. Nam THOAI* (14:00 - 14:30)
- **Detecting Incidents with Limited Linguistic Knowledge for Low Resource Languages**, *Prof. Chao-Hong LIU* (14:30 - 15:00)

Agenda – session 3 (DMCC + wrap-up)

- **Disaster Mitigation Competence Centre (DMCC) reports – 15.30 – 17:00**
 - *Dr. Suhami NAPIS* **Malaysia**
 - *Dr. Basuki SUHARDIMAN* **Indonesia** 15:45 - 16:00
 - *Dr. Peter BANZON* **Philippines**
 - *Prof. Nam THAOI* **Vietnam**
 - *Dr. Eric YEN*, **Taiwan**
 - *Dr. Veerachai TANPIPAT*, **Thailand**

- **Panel Discussion: State of the Art and new opportunities/challenges**

- ***Dr. Chuan-Yao LIN* “Numerical Analysis on Mesoscale Dynamics of the Extreme Rainfall and Flood Event (May 2016) over Sri Lanka”**